

# CE SERIES

# **Service Manual**



### PROFESSIONAL AUDIO AMPLIFIERS

# Models: CE-1000, CE-2000

(some units may have the model names: CE-1000A, CE-2000A, CE-2000TX, UT-1010, UT-2020, M120, M240, S2, and S3)

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The information furnished in this manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance. If you need special assistance beyond the scope of this manual, please contact the Crown Technical Support Group.

Mail: P.O. Box 1000 Elkhart IN 46515-1000 Shipping: 1718 W. Mishawaka Rd., Elkhart IN 46517 Phone: (800) 342-6939/(574) 294-8200 FAX: (574) 294-8301 Web: www.crownaudio.com

#### **CAUTION**

TO PREVENT ELECTRIC SHOCK
DO NOT REMOVE TOP OR
BOTTOM COVERS. NO USER
SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.
DISCONNECT POWER CORD
BEFORE REMOVING REAR INPUT
MODULE TO ACCESS GAIN
SWITCH.

#### **AVIS**

À PRÉVENIR LE CHOC ÉLECTRIQUE N'ENLEVEZ PAS LES COUVERTURES. RIEN DES PARTIES UTILES À L'INTÉRIEUR. DÉBRANCHER LA BORNE AVANT D'OUVRIR LA MODULE EN ARRIÈRE.



#### **WARNING**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE!



# **Revision History**

Revision Number	Date	Changes
Rev. A	3-98	Initial Printing
Rev. B	2-99	Added Additional Module Documentation. Added Revision History. Added Inside Cover Page. Updated Cover Page and Table of Contents.
Rev. C	5-99	Updated Graphic on Page 1-1. Updated Specifications on Page 1-2. Added Section 7, Module and Schematic Information. Added Section 8, Module Parts Lists. Moved existing Module Parts Lists from Section 6 to Section 8. Added Module Parts Lists for Module CPNs:102139-11, 102140-11, 127321-1, 127323-1, 127353-1, 127373-2, 127354-1, and 127354-2. Added Section 9, Field Service Modifications. Added Section 10, Schematics. Moved all existing Schematics from Section 6 to Section 10. Added Schematics 102141M and 102142M. Updated Cover Page, Revision History and Table of Contents.
Rev. D	10-02	Revised fan part no. from 125400-3 to 133551-1. Updated phone number area code. Updated sections 1.2, 1.3.6, 7.2, 7.2.1, 7.2.3, 7.3, 7.3.2, 7.3.3, 7.4.1, 9.2, 9.4. Added Module Parts Lists for Module CPNs: 102140-9 revB, 126883-2 rev B, 127321-2, 127323-2, 127353-3, 127354-3, 127451-4 and 127452-4. Added Schematics 127451-4 and 127452-4. Added Assembly Parts List for CE1000A and CE2000A Domestic. Revised Crown logo. Updated Cover Page, Revision History and Table of Contents.



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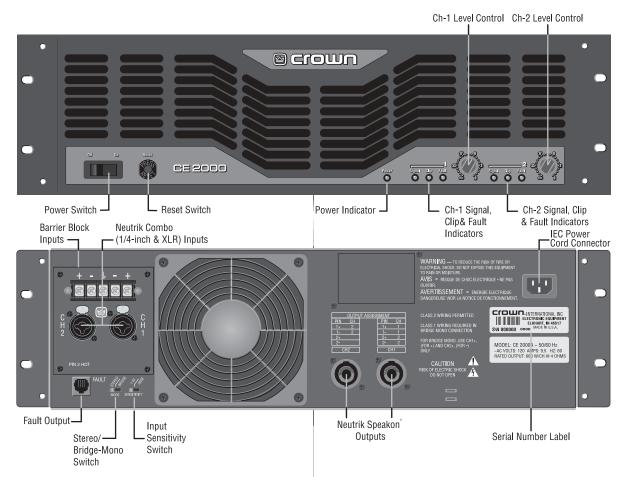
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# PART I Technical Information



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CE 2000 front and back panels

## 1 Introduction

This manual contains service information for the Crown *CE-Series* power amplifiers. It is designed to be used in conjunction with the *CE-Series* Reference Manual. Some important information is, however, duplicated in this Service Manual in case the Reference Manual is not readily available.

NOTE: THE INFORMATION IN THIS MANUAL IS INTENDED FOR USE BY AN EXPERIENCED TECHNICIAN ONLY!

#### 1.1 The CE-Series

The *CE-Series* amplifiers are compact, audio power amplifiers designed for professional use. These units provide high-power amplification from 20 Hz-20 kHz with minimum distortion. Features of these amplifiers are both Balanced Neutrik Combo (1/4-inch and XLR) and Barrier Block Inputs, Signal, Clip and Fault indicators, stereo or bridged-mono capability, switchable sensitivity, and Neutrik Speakon® Outputs. These units

also feature a proportional speed fan, which optimizes cooling efficiency.

#### 1.2 Warranty

Each Reference Manual contains basic policies as related to the customer. For further assistance please contact the Crown Technical Support Group at:

Crown International, Inc. Mailing: PO Box 1000 Elkhart, IN 46515-1000 or Shipping: 1718 W. Mishawaka Rd. Elkhart, IN 46517

Toll Free: (800) 342-6939 Phone: (574) 294-8000 FAX: (574) 294-8301 Web: www.crownaudio.com



#### 1.3 Specifications

Crown specifications are guaranteed for three years. Further, we guarantee that every Crown amplifier will meet *or exceed* its published specs.

#### 1.3.1 Performance

**Note:** Measurements made in Stereo, both channels driven into 8 ohms.

Frequency Response:  $\pm$  0.1 dB from 20 Hz to 20 kHz at 1 watt.

**Phase Response:** ±15° from 20 Hz to 20 kHz at 1 watt. **Signal to Noise at 8 Ohms Rated Power:** >105 dB A Weighted. >100 dB from 20 Hz to 20 kHz.

**Total Harmonic Distortion (THD):** <0.5% from 20 Hz to 1 kHz

**I.M. Distortion (60 Hz and 7 kHz at 4:1):** <0.1% from 8 ohms rated power to -35 dB.

**Damping Factor:** >400 from 10 Hz to 400 Hz. **Crosstalk:** >–55 dB from 20 Hz to 20 kHz.

**Common Mode Rejection (CMR):** >70 dB from 20-Hz to 1 kHz.

#### 1.3.2 Power

**Output Power:** (Max. average power at 1 kHz with 0.5% THD.)

**CE 1000 Stereo:** 275 W/channel into 8 ohms, 450 W/channel into 4 ohms, 560 W/channel into 2 ohms, both channels driven.

**CE 1000 Bridged Mono:** 900 W into 8 ohms, 1100 W into 4 ohms.

**CE 2000 Stereo:** 400 W/channel into 8 ohms, 660 W/channel into 4 ohms, 975 W/channel into 2 ohms, both channels driven.

**CE 2000 Bridged Mono:** 1320 W into 8 ohms, 1950 W into 4 ohms.

**Load Impedance:** Rated for 16-, 8-, 4-, and 2-ohm use. Safe with all types of loads, even reactive ones.

**AC Power CE 1000:** 120V/50-60 Hz @ 6.3 amps, 230-240V/50 Hz @ 3.5 amps, 100V/50 Hz @ 7.6 amps **AC Power CE 2000:** 120V/50-60 Hz @ 9.5 amps, 230-240V/50 Hz @ 5.1 amps, 100V/50 Hz @ 11.4 amps

#### 1.3.3 Controls

**Front Panel:** An on/off rocker switch; also, a detented rotary level control for each channel.

**Back Panel:** A two-position input sensitivity switch located below the input connectors. Can be set to 1.4 V for full output into an 8-ohm load, or set to a fixed voltage gain of 26 dB; Some models have an internal jumper located on the Main PWA for setting optional 0.775V sensitivity. A two-position mode switch located below the input connectors. When turned to stereo,

the amplifier operates as two independent channels. When in "bridge-mono" mode the amplifier bridges the two output channels for twice the output voltage.

#### 1.3.4 Indicators

A green LED **SIGNAL** indicator for each channel, which flashes when a very low level signal (>-40 dBm) is present at input.

A red LED **CLIP** indicator for each channel which turns on when distortion becomes audible in the amplifier output.

A red **FAULT** indicator which will blink under 5 different conditions:

- 1. When the amplifier is first powered up, until the unit is ready for operation.
- 2. If the heatsinks reach a temperature above normal working limits.
- 3. If the transformer thermal protection circuit is activated
- 4. If the load on the amplifier develops a short- circuit.
- 5. Should the amplifier ouput stage become non-operational.

A green LED **POWER** indicator that turns on when the amplifier has been turned on and has power.

#### 1.3.5 Input/Output

**Input Stage:** Input is electronically balanced and employs precision 1% resistors.

**Input Impedance:** Nominally 20 K ohms, balanced. Nominally 10 K ohms. unbalanced.

**Input Sensitivity:** 1.4 volts for standard 1-kHz power or fixed 26-dB gain.

**Output Impedance:** <20 milliohms in series with less than 3 microhenries in stereo mode.

**DC Output Offset:** <±10 millivolts.

#### 1.3.6 Connectors

**Inputs:** One Neutrik Combo connector for each channel which features a balanced <sup>1</sup>/<sub>4</sub>-inch phone jack and a 3-pin female XLR connector, in parallel with a barrier strip termination.

**Outputs:** Two Neutrik Speakon® NL4MP (mates with NL4FC) output connectors. Optional binding post and barrier block output adaptors are available on the CE 1000A and CE2000A, and are standard on some models.

#### 1.3.7 Construction

Rugged steel chassis formed into a durable package that is coated with environmentally friendly powder for long life and ease of maintenance.



**Dimensions:** Standard 19-inch (48.3-cm) rack mount width (EIA RS-310-B), 5.25-inch (13.34-cm) height and 12.25-inch (31.11-cm) depth behind front mounting surface.

**Weight:** The CE 1000 weighs 32.6 pounds (14.79 kg). The CE 2000 weighs 40.3 pounds (18.28 kg). For shipping weight, add 6 lbs (2.7 kg) to each amp. **Mounting:** Standard EIA 310 front-panel rack mount.



## 2 Maintenance

Fundamentally, troubleshooting involves looking for an abnormal situation. When a problem has been observed, it is obvious that something is not doing what it is expected to do. A single part, solder joint, or trace is usually the root cause, and testing for typical voltages and signal tracing can usually result in a solution for most of the problem units. Unfortunately, there are two other scenarios. (1) Sometimes a single problem may cause other parts to fail so there will be several parts that must be replaced. In this case, however, finding the root cause is not as important as just finding all of the blown or damaged parts and replacing them. The failed part will probably (but not always) be among them and the act of replacing the parts will fix the amplifier. (2) If the observed behavior is an oscillation, high THD, or the output slammed to one of the rails, the very nature of a feedback amplifier will spread this effect throughout the power amplifier section. This troubleshooting guide and a familiarity with amplifier operation should help you fix whatever comes your way!

#### 2.1 Surface Mount Technology

The CE-Series amplifiers use surface mount technology in their design. There are several advantages to using surface mount technology (SMT), including; (1) surface mount devices (SMDs) are much smaller, and are mounted to the surface of the board, so more components can be placed on the board. (2) Components can be attached to both sides of the board, allowing the board size to be reduced. (3) SMT boards are lighter and provide better electrical performance signal speed.

Of course, there are also things to watch out for with SMT. (1) The placement of the components on the board, not through a hole, makes the components and the solder joint more susceptible to damage. (2) Rework of SMDs can often require specialized tools, equipment, or training. (3) SMDs are very small and can be difficult to handle, see, and identify.

Remember that on the CE-Series amplifiers, the SMDs on the bottom side of the main module are GLUED. Take care not to damage components while trying to remove them from the surface of the module.

# A

#### 2.2 Cautions and Warnings

DANGER: The outputs of this amplifier can produce

LETHAL energy levels! Be very careful when making connections. Do not attempt to change output wiring until the amplifier has been off at least 10 seconds.

**WARNING:** This unit is capable of producing high sound pressure levels. Continued exposure to high sound pressure levels can cause permanent hearing impairment or loss. User caution is advised and ear protection is recommended when using at high levels.

**WARNING:** Do not expose this unit to rain or moisture.

**WARNING:** Only properly trained and qualified technicians should attempt to service this unit. There are no user serviceable parts inside.

**WARNING:** When performing service checks with the power off, discharge the main power supply filter capacitors fully before taking any measurements or touching any electrical components. A 300-ohm 10-W resistor is recommended for this. Hold the resistor with pliers, as the resistor may become extremely hot.

**WARNING:** Under load, with a sine wave signal at full power into both channels, the amplifier may draw in excess of 30 amperes from the AC service mains.

**WARNING:** When performing tests in Section 2.3, do not connect any load to the amplifier until instructed to do so. There is no danger to the amplifier in operating without any load (open outputs).

**WARNING:** Do not change the position of the Mode Switch when the amplifier is turned on. If the position of this switch is changed while the amplifier is powered, transients may damage your speakers.

**WARNING:** Heatsinks are not at ground potential. Simultaneously touching either heatsink and ground, or both heatsinks will cause electrical shock.

**CAUTION:** Eye protection should be worn at all times when protective covers are removed and the amplifier is plugged in.

**CAUTION:** When performing tests in Section 2.3 that require a load, the load must be resistive and must be capable of handling 1000 W (per channel).

**CAUTION:** Disconnect the power cord before installing or removing any cover or panel.

**CAUTION:** Electrostatic discharge will destroy certain components in the amplifier. Techicians must have approved ESD protection. Proper grounding straps and test equipment are required.

#### 2.3 Troubleshooting

#### 2.3.1 Pre-AC-Checks

A number of checks can be made prior to powering up the unit. These should be done in order to prevent an unwanted disaster when turning the unit on. Once these checks are made, power may be applied for further checks. Note: It will be necessary to remove the top panel for complete access to all modules.









Step 1: Acquire all information possible from the person(s) having the problem to determine the nature of the complaint. Ask questions like "Why was the amplifier brought in for repair?" "Does it do this at turn on, does it take a while, or does it only happen sometimes?" If you observe nothing wrong, inquire tactfully how the unit was being used when the malfunction occurred. This will help determine if the unit may have been misused, if the user misunderstood what happened, or if another system component may be at fault. Remember, this is one of the first amplifier series to have only Neutrik Speakon® connectors for the outputs. There is room for error in assembling the connectors. Be sure to ask if the person may have had problems with the Speakons.

Step 2: Always do a complete visual inspection. A problem may be obvious just by looking at the unit. Things to look for include burned components, wires not connected, fan obstructions, loose hardware or connections, and soldering. Plugged heatsinks can greatly reduce amplifier efficiency. The fan blades should spin freely. Burns and other physical damage should be repaired and components in the affected circuit areas should be checked carefully before continuing.

Whether a problem is identified by visual inspection or not, several checks should be performed prior to turning the amplifier on. These should be performed if any of the following problems have been reported: catastrophic failure, no signal output with constantly blinking Fault LED, or the condition of the amplifier is otherwise unknown but failure is suspected.

The third step on the "to do" list involves a number of electrical checks. Due to the protection features of the CE-Series amplifiers, it should be safe to turn-on under all circumstances, but these preliminary checks may allow a partial (if not complete) repair before power is ever applied. These checks are designed to find problems in the output stages. The ultimate guide should always be common sense.

#### 2.3.2 Main Module Removal

- 1. Remove the top cover by removing the four side screws, lift up slightly on the rear of the cover, and then pull it toward the back of the amplifier. Many of the parts are located on the bottom side of the circuit board. In most situations, the circuit board won't need to be removed from the chassis. In the event that it does, go to step 2.
- 2. Remove the red and blue wires from the rectifier block that is screwed to the bottom of the chassis near the power supply capacitors and short the wires together through a resistor such as a 300-ohm 10 W.
- 3. Disconnect the in-line FASTON that connects the circuit board to the transformer.

- 4. Disconnect the 4-wire connector from the circuit board that comes from the transformer.
- 5. Disconnect the small white wire that connects the circuit board to the rectifier block.
- 6. Remove the four screws that hold the input assembly to the chassis. Unplug the input assembly from the ribbon cable.
- 7. Remove the four screws that hold the output jacks to the back panel.
- 8. Unplug the fan from the circuit board.
- 9. Remove the eight screws (five in the rear, three in the front) that hold the circuit board down to the chassis.
- 10. Remove the knobs from the gain pots by pulling the knobs out the front. The circuit board will now lift out of the chassis; but be careful, it is a tight fit.

#### 2.3.3 Static Checks

- 1. Locate the flyback diodes D114, D115, D214, and D215 on the main modules and check for indications of a short. If a short is indicated, this means that an output device or driver transistor in parallel with that diode is shorted, usually not the diode itself. If an output device is found to be defective, emitter resistors should also be checked. If no output device is found defective, perform a quick check of driver, pre-driver, and bias transistors. Then, if no problem is found, move to the power-on checks in Section 2.3
- 2. Check driver and pre-driver transistors for shorts or opens. If a fault is found, do an in-circuit static check of all semiconductors on the output modules. If no output device and nothing upstream is found defective, move to power-on checks. Otherwise continue.
- 3. If a failure has occurred anywhere in the output stages, check the bias servo transistor. Any failure associated with bias transistors may result in repeat failure of the affected channel even if all other defective components have been found and replaced.
- 4. If a failure is found in any LVAs, checks should continue up to the voltage translator stage.
- 5. Failure within the power supply itself is very rare; however, a cursory check of major items is always prudent.

#### 2.4 Checkout/Adjustment Procedures

The following instructions outline an orderly checkout and troubleshooting procedure. The purpose and arrangement of this procedure is to ensure proper operation after a repair has been completed. Before beginning these power-on tests, review all cautions and warnings in Section 2.1, and perform the checks listed in Section 2.2. These checks will minimize the possibility of receiving a nasty surprise when turning on the CE-Series amplifier.

WARNING! Most adjustments are made with the cover removed.





WARNING! Most adjustments are made with the cover removed. Prior to any AC power off testing, discharge all power supply capacitors. Also, use extreme caution when making internal adjustments when the unit is powered.

#### 2.4.1 Equipment Required

The following is a list of standard equipment needed to perform all the tests listed in Section 2.3.3:

**Line Voltage Variac:** 2-kW or larger. **Oscilloscope:** 2 Channel, 10-MHz or better. **Digital Multimeter:** Various measurements.

Watt Meter: For AC line draw.

ACVM: Peak reading RMS calibrated (all AC line volt-

age and amplifier output voltage checks).

I.M.D. Analyzer: 60 Hz/7 kHz in 4:1 ratio, accurate to

0.001% I.M.D.

**T.H.D. Analyzer:** Accurate to 0.001%. **Loads:** 2000 W continuous at 1 ohm.

#### 2.4.2 Initial Conditions

The start of each step assumes all switches are pre-set to

the following positions:

Mode Switch: STEREO position. Input Sensitivity Switch: 1.4 V position. Level Controls: Both up (clockwise) fully.

#### 2.4.3 Test Procedure

The following steps are arranged in order for best results and, for the most part, easiest use. Read each step carefully before proceeding. Read all precautions in Section 2.1 before continuing. Use extreme caution and good common sense at all times. The preceding warnings and cautions are detailed for good reason.

#### 2.4.4 Service Kit Wire Extensions

A service kit containing wire extensions is available from the Crown Parts Department (part # 125581-1). By using the wire extensions provided in the kit, maneuverablility of the main module is greatly increased. When using the service kit, it is required that all instructions be followed.

**Special Note On Grounding:** Whenever the main module is removed from the chassis and power is applied, the grounding wires absolutely must be attached. Also, if you are at-

tempting to make very precise THD or noise measurements, the main module must be completely installed in the chassis with all seven mounting screws properly seated to their specified torque, 12-14 in-lb (1.35-1.58 newton meters). This assures a proper low-impedance ground path for the module. However, if you require measuring THD or noise with the main module removed from the chassis, please call technical support for further information and instruction.

If you are attempting to check or measure VI limiting, output power, or any other test which would require the amplifier to produce large amounts of heat, the main module should be securely mounted inside the chassis with the fan connected. If the module must be removed from the chassis, the test should be of very short duration, and/or an external fan should be used for cooling the heat sinks.

#### Service Kit Assembly Instructions

- 1. Follow the main module removal procedure.
- 2. Attach the 16AWG blue wire in the service kit to the 16AWG blue wire on the main module and to the negative tab on the rectifier.
- 3. Attach the 16AWG red wire in the service kit to the 16AWG red wire on the main module and to the positive tab on the rectifier.
- 4. Attach the 22AWG white wire in the service kit to the 22AWG white wire on the main module and to the AC tab on the rectifier.
- 5. Attach the 14AWG black/white wire in the service kit to the 14AWG black/white wire on the main module to the 14AWG black/white wire coming from the transformer.
- 6. Plug in the female 4-pin connector on the 4-wire service assembly to the 4-pin header on the main board. Plug the male end into the 4-pin female connector coming from the transformer, making sure the orientation is as shown in Figure 2.1. Plug in the input module.

#### **Optional Grounding Wire**

7. On the 12AWG green ground wire, attach the longest wires' ring terminal to the chassis ground shown in Figure 2.2, using the PWA mounting screw. The remaining three wires should be attached to the PWA at the three grounding locations shown in Figure 2.2, using the 6-32 screws and 6-32 hex nuts provided in the kit.

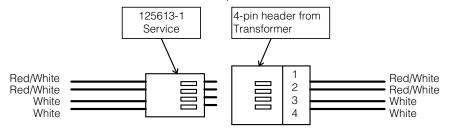


Figure 2.1 4-pin Connector Wiring Diagram.



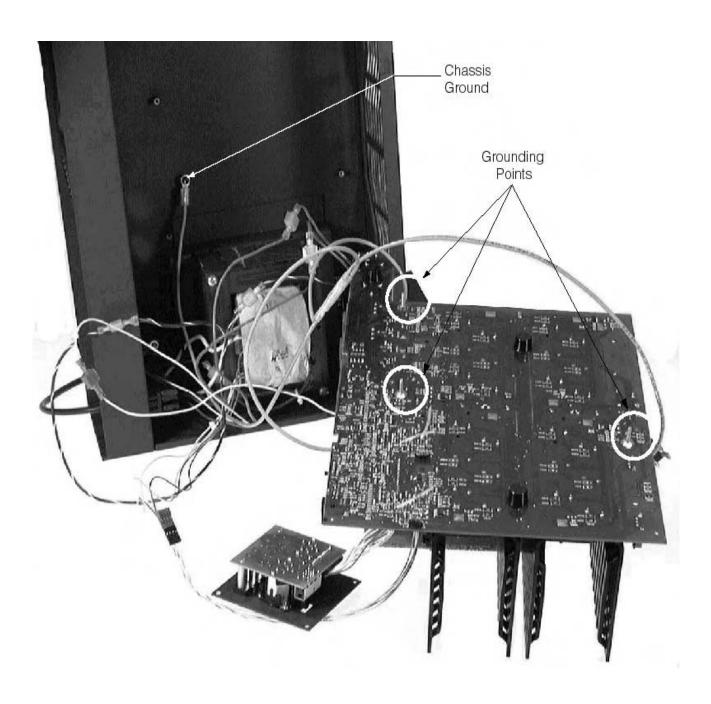


Figure 2.2 CE 1000 with Main Module Removed and Service Kit Installed



**WARNING:** Do not connect any load to the CE-Series power amplifier during these tests until specifically instructed to do so.

Type of Test or Adjustment	Input Signal and Load Parameters	Comments
1. Turn-on Delay	No Signal No Load	Check for a delay of approximately 6 seconds from the time the power switch is turned on until the fault indication clears. If the fault fails to clear, check for presence of rail voltages and for a DC offset. Turn unit off, disconnect the power cord, discharge power supplies, and check for a failure in the output stage of the affected channel, or other applicable circuit area. If the fans lock in high speed after delay times out, check fan control components.
2. DC Output Offset	No Signal No Load	With the input level controls turned fully clockwise, the DC offset for both channels should be less than ±10 millivolts. A large DC offset usually indicates a failure in the output stage, though such an offset should have shut down the amplifier on a DC/LFI signal.
3. Quiescent Power	No Signal No Load	While there is no published specification on quiescent power, it should be checked. A power draw with the fan off or operating slowly will normally be less than 150 W (<1.5 A). If quiescent power greatly exceeds expectation, then turn the amplifier off immediately and search for power supply or output failure. If quiescent draw exceeds expectation by a "small" amount, check bias immediately.
4. Bias	No Signal No Load	Bias voltage is set while the amplifier is at room temperature. If the amplifier is hot from prior testing for repair or other purposes, it should be set aside until it has cooled before continuing with this check. Bias, once factory set, normally will not require adjustment. For channel 1: Measure the voltage at TP38 with respect to channel 1 positive output (DO NOT measure from ground reference). The bias voltage should equal 0.31V ± 50 millivolts. If the bias voltage needs to be adjusted, adjust R134 for the correct bias voltage. For channel 2: Measure the voltage at TP39 with respect to channel 2 positive output (DO NOT measure from ground reference). The bias voltage should equal 0.31V ± 50 millivolts. If the bias voltage needs to be adjusted, adjust R234 for the correct bias voltage.
5. Sensitivity (Gain)	1-kHz Sine Wave No Load	Set the sensitivity switch to the 26-dB position, check that both level controls are full clockwise. Insert a 1.4V 1-kHz sine wave and measure 26.6V–29.4V at the output of each channel. Set the sensitivity switch to the 1.4V position and measure 44.5V-49.2V at the output of each channel for the CE 1000, and measure 53.7V-59.4V at the output of each channel for the CE 2000.



Type of Test or Adjustment	Input Signal and Load Parameters	Comments
6. Bridge Mono	1-kHz Sine Wave No Load	Note: Always turn power to the amplifier off prior to changing the position of the Mode Switch. With the dual/mono switch in the bridge mono position, insert a 0.775 Vrms 1-kHz signal into channel one input. There should be signal present on both channel outputs, equal in amplitude, with channel two 180 degrees out of polarity from channel one (see Fig. 2.3). Channel one input level control should control the output level for both channels. Return the amplifier to stereo operation.
7. LED Check	No Input No Load	Turn the amplifier on after being off at least 10 seconds. Make sure the green Power LED is on. If not, check the ground screw at the front of the amplifier, near C218, that holds the PWB to the chassis. Also suspect R4, E1, or R19.
8. Current Limit	1-kHz Sine Wave	Set the sensitivity switch to 26-dB and check that both level controls are fully clockwise. Insert a 3.5V 1-kHz sine wave into channel 1 only and capture the output signal on a digital storage scope. Turn off the signal. The limits for the CE 1000 are 20 A ±5 A. For the CE 2000 the limits are 25.5 A ±5.5 A. Change the input signal to channel 2 only and repeat the test.
9. 10-kHz Square Wave Slew Rate Test	10-kHz Sq. Wave 8-ohm Load	With an 8-ohm load on each channel, insert a 10-kHz square wave and adjust amplitude to produce an output 10V below clipping. Observe a 7V/µS (or higher) slew rate. The output waveform should be stable with no ringing or over-shoot.

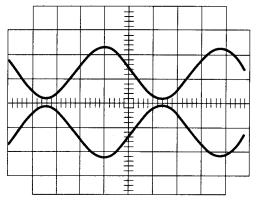


Fig. 2.3 Bridge MONO



<u>WARNING:</u> Many of the following checks are done by connecting a resistive load to the output of the amplifier. Use caution and follow check-out procedures carefully to ensure correct results. These tests require a resistive load capable of over 2000 W continuous into as low as 2 ohms.

<u>WARNING:</u> The CE-Series is capable of drawing in excess of 30 Amperes of current from 120VAC mains when loaded to 2 ohms per channel and with both channels driven by a 1 kHz sine wave.

For tests numbered 10-15 the main module should be placed back into the chassis if at all possible. Otherwise, the heatsinks will become very warm, causing the amplifier to thermally protect itself. It is also possible under high-power bench testing to trip the front panel circuit breaker. Also, with the module removed from the chassis, test #14, Fan Operation, will not be able to be performed.

Type of Test or Adjustment	Input Signal and Load Parameters	Comments
10. 1-kHz Power + THD	1-kHz Sine Wave Various Loads	Make sure the sensitivity switch is set to 26 dB. Note: Operation with a sine wave into a low-impedance load will cause the circuit breaker to trip after 10 to 20 seconds.
		AC Mains of 120 VAC, 60-Hz 8-Ohm Load: Minimum voltage is 46.9 Vrms (275W) with <0.5% THD for the CE 1000 and 56.6 Vrms (400W) with <0.5% THD for the CE 2000.
		4-Ohm Load: Minimum voltage is 42.4 Vrms (450W) with <0.5% THD for the CE 1000, and 51.3 Vrms (660W) with <0.5% THD for the CE 2000.
		2-Ohm Load: Minimum voltage is 33.4 Vrms (560W) with <0.5% THD for the CE 1000, and 44.1 Vrms (975W) with <0.5% THD for the CE 2000.
11. Intermodulation Distortion (I.M.D.)	I.M. Signal Source 8-ohm Load	You may need to adjust your variac back up to nominal line voltage during these tests. Place the sensitivity switch in the 26-dB position. Use a 60-Hz/7-kHz (standard SMPTE IM signal) input signal summed in a 4:1 ratio. Set the 60-Hz portion for 33.9 Vrms at the output of the channel under test for the CE 1000, or 40.8 Vrms at the output of the channel under test for the CE 2000. This is your 0-dB reference. Measure the I.M. distortion. Check in -5 dB (power) steps until -35 dB is reached. Readings should be less than 0.1% at each level.



Type of Test or Adjustment	Input Signal and Load Parameters	Comments
12. Noise	No Signal No Load	Make sure the sensitivity switch is in the 26-dB position and the level controls are fully clockwise. Terminate the input with a 600-ohm load. Using a 20 to 20,000- Hz bandpass filter, measure the noise on the output of the channel under test. Noise is measured relative to power output at 8-ohms (275 Watts (46.9 Vrms) for CE1000, 400 Watts (56.6 Vrms) for CE 2000) and should be at least 100-dB down from these numbers.
13. Crosstalk Check	20-kHz Sine Wave 8-ohm Load	Make sure the sensitivity switch is set in the 26-dB position. Load each channel to 8-ohms. Insert a 20-kHz sine wave into channel 1 and adjust for 44.7 Vrms output. Terminate channel 2 input with 600 ohms. Measure less than 80 mVrms at the output of channel 2. (Greater than 55 dB down at 20-kHz)
		Move the input signal from channel 1 to channel 2 and the 600-ohm termination from channel 2 to channel 1. Ensure there is 44.7 Vrms at the output of channel 2. Measure less than 80 mVrms at the output of channel 1.
14. Fan Operation	1-kHz Sine Wave 4-ohm Load	Make sure the mode switch is in the "stereo" position. Plug a 1-kHz source into channel 1, 2 or both and observe the amplifier outputs with a voltmeter. Set the inputs so that about 10 Vrms is on the outputs and set the load to 4-ohms. If the amplifier produces power until the heatsinks get so hot that a channel goes into thermal protection, the fan is not working correctly. With the amplifier still in thermal protection, measure the voltage at J4 pin 1 (the red fan wire). If this voltage is greater than 20VDC, there is a problem in the wiring of the fan, or a problem with the fan itself. If the voltage is less than 20VDC, then the fan control circuit needs attention.
		U106 is a thermally controlled current source that is thermally connected to the heatsink. For channel 1, R190 develops a voltage across it due to this current, and this signal is OR'ed with the voltage from channel 2 and the transformer thermal switch. U4A is a DC amplifier that voltage amplifies the signal, and Q1 and Q2 current amplify this signal to drive the fan.
		If the heatsinks are hot, and U4-7 is negative, suspect U106, R191, R190, D119, R20, R21, R22, and U4. If the heatsinks are hot, and U4-7 is positive but U4-1 is low, suspect R23, R12, R11, and U4. If U4-1 is quite high (above 10V), but J4-1 is not the same voltage, Q1, Q2, R14, or R15 may be at fault.



Type of Test or Adjustment	Input Signal and Load Parameters	Comments
15. Fault Jack	No Signal No Load	Turn off the amplifier and set up the DMM to measure the voltage at U105-7. Turn on the amplifier and observe this voltage. Before the relays click in, U105-7 should be positive, and after they click in U105-7 should be negative. If this is not the case, suspect R179, and U105.
		For every condition that J5 presents an open circuit, the "fault" LED should blink, with one exception; when the amplifier is off, the LED cannot blink. Verify that when the amplifier is in its turn-on delay, the "fault" LEDs both blink. If they don't, but the fault jack operates correctly, suspect D124, C122, R180, R182, R183, E102, E181, and R105.
Post Testing Procedure		At the completion of testing, set all switches per customer request. If none are specified by the customer, the following are standard factory settings for original shipment:  Mode Switch: STEREO position.
		Input Sensitivity Switch: To 1.4V position. Level Controls: Both down (counter-clockwise) fully.



## 3 Circuit Theory

#### 3.0 Overview

This section of the manual explains the general operation of the CE power amplifier. Topics covered include Front End Operation, Voltage Amplification, Output Stage Topology, Protection Circuitry and Power Supplies. For simplicity, the circuit theory will only refer to channel one. It may be assumed that channel two is identical to channel one.

#### 3.1 Front End Operation

The front end is comprised of three stages: Balanced Gain Stage (BGS), Variable Gain Stage (VGS) and the Error Amp. These front end stages are shown along with the rest of the amplifier in block diagram form in Figure 3.1.

#### 3.2 Balanced Gain Stage (BGS)

Input to the amplifier is balanced. The shield is iso-

lated from chassis ground by an RC network to interrupt ground loops. The inverting (-) side of the balanced input is fed to the non-inverting input of the first op-amp (U500-A) stage located on the input card. The non-inverting (+) side of the balanced input is fed to the inverting input of the first op-amp stage. Electrically, the BGS is at unity gain. (From an audio perspective, however, this stage actually provides +6-dB gain if a fully balanced signal is placed on its input.) The BGS is a non-inverting stage. Its output is delivered to the Variable Gain Stage.

#### 3.3 Variable Gain Stage (VGS)

From the output of the BGS, the signal goes to the VGS where it is inverted and gain is determined by the position of the sensitivity switch (26 dB or 1.4V), and level is determined by the level control. The sensitivity switch allows for R505 to be either in or out of the local feedback path of U500-B. When R505 is out of the path (i.e. sensitivity switch in 1.4V position), and the gain of U500-B is greater than 1, the amplifier will produce full rated output when the amplitude of the input is 1.4 volts. Likewise, when the sensitivity switch is in the 26-dB position, R505 is in parallel with R506. This sets the gain of U500-B at 1.0 volt/volt. In

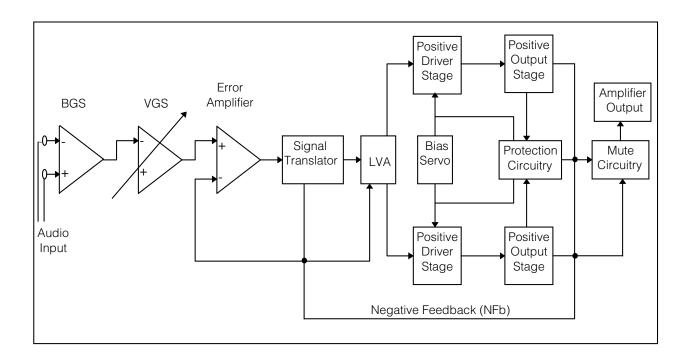


Figure 3.1 Block Diagram of CE Amplifier Circuit Operation



this case, the gain of the VGS is unity and the amplifier will have an overall fixed gain of 20 volt/volt or 26- dB. The VGS is an inverting stage.

#### 3.4 Error Amp

The inverted output from the VGS is fed to the non-inverting input of the Error Amp (U101-C) through an AC coupling capacitor C103 and input resistor R106. Diodes D103 and D104 prevent overdriving the Error Amp. Amplifier output is fed back via the negative feedback (NFb) loop through R112 and C106 (pre-terminator network) and R322 (post-terminator network). The overall closed-loop mid-band gain is set to be 20 or 26 dB by resistors R112 and R110.

The Error Amp's job is to keep both inputs at the same potential. Since the signal fed to the inverting input is <sup>1</sup>/<sub>20</sub> of the amplifier output, the Error Amp output should be the same as the non-inverting input, which should be <sup>1</sup>/<sub>20</sub> of the output of the amplifier during linear operation (i.e., what goes in, comes out with gain). Any type of non-linearity in the output will cause the Error Amp to compensate with the opposite of the non-linearity. For example, if the amplifier clips, the error amp will travel all the way to its opposite rail trying to compensate. The output of the Error Amp, called the Error Signal (ES) drives the Voltage Translator (Q103).

#### 3.5 Voltage Amplification

The voltage amplification stage consists of the voltage translator, last voltage amplifier and the bias servo. Each of these items are discussed in this section.

#### 3.5.1 Voltage Translator

The Error Amp output is only capable of swinging several volts and therefore must be voltage amplified to drive the output stage. The purpose of the voltage translator, Q103, is to level shift or translate the voltage from a reference around ground to a reference just above -Vcc. The result is higher voltage swing capabilities from the LVA. This is required since the next stage is referenced to -Vcc. The diode D105 protects the voltage translator from reverse biasing.

#### 3.5.2 Last Voltage Amplifier (LVA)

The next stage is the Last Voltage Amplifier Q107. The LVA provides voltage gain necessary to provide drive to the output stage. R115 in the base of Q107 provides collector current for Q103, the voltage translator, and it also allows the signal of the collector of Q107 to be developed across it and thus amplified.

The series combination of D126 and D127, in parallel with the base-emitter junction of Q107 and R136, form a circuit that limits the current through Q107. One of these diode drops equates to the base-emitter junction of Q107, and the other equates to the voltage on R136. Therefore, the current through Q107 cannot rise higher than that required to produce a diode drop across R136.

#### 3.5.3 Bias Servo

Q104, R132, R133 and R134 form the bias servo. This circuit is also known as a  $\rm V_{BE}$  Multiplier or a level shifter. Q104 is called the bias transistor. The purpose of this circuit is to provide and control bias to the output stage. By utilizing the constant current source Q105, the bias servo effectively multiplies the voltage across the bias transistors base-emitter junction and produces the output voltage across the bias transistors collector-emitter junction. The bias adjustment pot R134 is included to allow adjustment of the bias voltage.

The bias transistor is mounted on the main module and thermally connected to the heatsink. The purpose of this is to allow the bias transistor to automatically adjust the bias voltage as needed depending on the temperature of the output devices. This is possible because the forward voltage drop across a P-N junction decreases by approximately 2 mV for every 1° C increase in temperature.

#### 3.6 Output Topology

The output topology for the CE series amplifiers is a type of quasi-complementary design using only N-P-N output devices. They also have the classic CROWN AB+B biasing configuration also known as MultiMode or triple-deep Darlington. The pre-drivers and drivers are biased at 0.6V and the output transistors have a 0.31VDC voltage from base-emitter and are therefore at a sub-turn-on voltage. In this type of topology (AB+B), the driver transistors carry the bias current, while the output transistors sense when the drivers have developed significant current, and thus take over and deliver the needed current. This is a proven design that provides maximum efficiency with minimum crossover notch distortion and idling amplifier heat. Thus there is no bias current adjustment, as the output circuit is not temperature-tolerance critical.

This output topology has become quite common in power amplifier design. Typical Darlington transistors, connected in the Common Emitter configuration, are used



when extremely high input resistance and very high  $h_{\rm fe}$  (current gain) are required. Figure 3.1 includes the block diagram of the output stage. The output stages can be further broken down by Pre-driver, Driver, Output Devices, Flyback Diodes and Output Terminating Network.

Be sure when replacing the heatsink that the nuts are torqued properly. The heatsink receives its power through these nuts, and without them being torqued properly, the amplifier will not function correctly.

#### 3.6.1 Pre-Driver

There is both a positive side pre-driver Q110 and a negative side pre-driver Q120. The level-shifted signal from Q107 is applied directly to the base of Q110 where it is current amplified. The level shifted signal applied to the base should be symmetrical relative to 0 VDC plus the DC offset required to bias on Q110 and the driver. The positive pre-driver is connected as an emitter-follower stage with no sign inversion; the negative side must provide sign inversion and level shifting so that the driver can be referenced to the negative rail. Thus, the output is taken off of the collector.

#### **3.6.2 Driver**

The positive side driver, Q112, is driven by the pre-driver, Q110. Likewise, the negative side driver, Q121, is driven by the negative pre-driver, Q120. The Class AB+B nature of the output stage means that the drivers are on as Class AB devices, and the amount of bias can be measured across R150 or R165. The resistors R150 and R165 are called the bias resistors because they are connected directly across the base-emitter junction of the output devices.

#### 3.6.3 Output Devices

The output devices, Q114-Q119 on the positive side and Q123-Q128 on the negative side are driven directly from the emitters of the respective drivers. The most important characteristic between output devices is their ability to share current handling. In ideal current sharing all of the output devices produce the same amount of current; that is, no one output device works more than or less than any other output device. However, not all transistors have identical current gain. This is why, for optimum performance, it is absolutely critical that the output devices be matched. When the output devices are matched, they will have current gains that are very similar. To ensure optimal performance, numbered devices should only be ordered from the Crown Service Department.

#### 3.6.4 Flyback Diodes

D114 and D115 are called flyback diodes. In the event that a back EMF (flyback) pulse exceeds the power supply voltage, the flyback diode will shunt this voltage to the supply in order to protect the output devices.

#### 3.6.5 Output Terminating Network

R158, L102 and C118 form the output terminating network. This network serves several functions. It allows the amplifier to better drive very reactive loads and improves amplifier stability.

#### 3.7 Power Supply

There is one current source and three different power supplies in the CE series amplifiers: the low-voltage supply, bootstrap supply and the high-voltage supply. Each of these circuits will be discussed in this section.

#### 3.7.1 Low Voltage Supply

The low-voltage supply is a bipolar supply producing +15V and -15V via two three-terminal regulators. The source of AC voltage comes from special taps on the main transformer. This type of low-voltage supply produces an extremely stable and dependable voltage source for all of the low-voltage circuitry.

#### 3.7.2 Bootstrap Supply

The bootstrap supply is a voltage doubler network that consists of C1, C3, D6 and D7. The AC leg of the secondary is applied to R1, which limits the current. Since the voltage at +Vcc is tied through D6, the voltage on C1+ can be no lower than +Vcc - 0.7V so the voltage of C1+ will be +Vcc -0.7VDC when there is no input on WP6. As the voltage on WP6 goes positive, C1- rises, minus the voltage drop on R1, and therefore, C1+ rises relative to ground by the same amount. D7 will conduct, charging C3+. As WP6 completes its cycle and goes negative, D7 prevents the charge built up on C3 from travelling back to C1. So, every positive cycle of WP6 adds charge up to the point that C3+ reaches twice WP6 peak minus the drop on R1. The voltage developed at C3+ has a significant amount of ripple, and that ripple is not equal in amplitude to that on +Vcc. R2 provides a current path and isolation between the voltage required (HI-V) and that on C3+. D8 (10V Zener) is placed between HI-V and +Vcc to limit HI-V to +Vcc +10VDC.

The purpose of this supply is prevent the bias string from limiting the rail voltage. If the top of the bias string was connected to the positive rail voltage, the current required for bias flowing through a resistor to create a



current source would drop enough voltage to require a higher rail voltage. This would increase the dissipation of the outputs since they would never reach this voltage. By using a bootstrap supply, the bias string never limits the available voltage swing of the amplifier.

#### 3.7.3 High Voltage Supply

The high voltage supply is bipolar and produces the rail voltages +Vcc and -Vcc. It is full-wave rectified and capacitively filtered. The transformer scales the line voltage to the voltages required by the amplifier. It also provides isolation between the line voltage appearing at the primary winding of the transformer and the rest of the amplifier.

#### 3.7.4 Constant Current Source

Q105 and R135 form a constant current source utilizing the bootstrap supply HI-V and the rail voltage +Vcc. This source is derived from the difference between HI-V and +Vcc (which is +10V) being developed across R135 and Q105 base-emitter junction. Since this difference is presented across the base-emitter junction, the ripple of HI-V relative to +Vcc must be zero for a constant current to be produced. Another very important component is C138. C138 overpowers the base-collector capacitance of Q105. This ensures that the slew limit of the LVA is set by a more constant capacitance rather than one that is much more variable with the applied voltage. This lowers distortion by making the rate of change of the waveform less dependent on the output voltage.

The constant current source is required for proper operation of the bias servo circuit. It also helps to provide isolation between the front end input stage supply and the rail voltage.

#### 3.8 Protection Circuitry

The CE series of amplifiers are equipped with a great deal of protection circuitry to protect the amplifier under a wide and varied array of fault conditions. Each of the fault conditions and fault circuitry will be reviewed in this section. Also, the CE amplifiers provide an output fault connector to allow remote monitoring of the amplifier's condition. This remote fault connector will also be covered. A block diagram of the Protection Circuitry Logic is shown in Figure 3.2.

#### 3.8.1 Time Dependent VI Limit

There is a special type of VI limiting in the CE amplifiers. It is called Time Dependent VI limiting. While most current limiting circuitry is independent of frequency, that is, it limits VI regardless of what the frequency is, Time Dependent VI limiting will actually adjust the VI limiting of the amplifier based on the frequency of the signal.

The time/frequency dependence of the limiter also allows for higher, non-repetitive peak-currents than is allowed for continuous wave output signals. The result is an amplifier more suited to reproducing music.

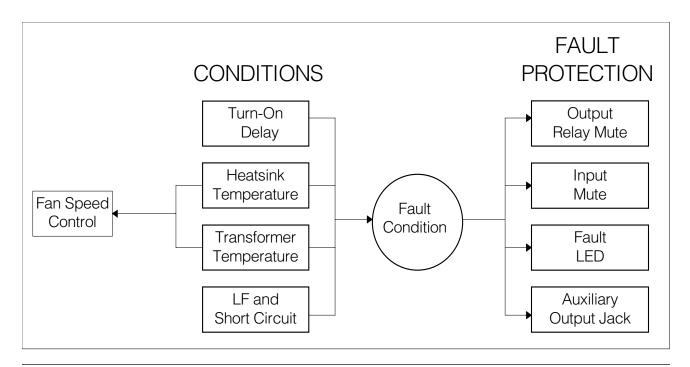


Figure 3.2 Block Diagram of Protection Circuitry Logic



The VI circuitry first senses the output current from the current sense resistors R152 and R301 on the positive side, and R159 and R300 on the negative side. This voltage is then fed to the limiting transistors Q108 and Q109. Before the output current becomes dangerously high, the limiting transistor is activated, which in turn limits the drive voltage at the base of the pre-driver. When the pre-driver current and the limiter current are equal to the current available from the constant current source, a limit point is reached, and the protection circuitry remains in this state until the overload is removed.

The frequency dependence of the circuitry comes from the capacitors C113 and C114. The resistors R140 through R143 are referenced to ground and only affect current limit when the output voltage is higher than ground. The resistors also serve to drain the charge from C113 and C114, thus increasing the current limit as the output voltage is increased. The diodes D113 and D114 serve to block voltage during opposing cycles so that the positive current limit circuitry is not affected by negative output signals and vice-versa. The VI limiter is pre-biased by R317 and R318. This is done so that less current in the output stage is required to activate it.

#### 3.8.2 Temperature Protection

There are three different temperatures that are monitored on the CE amplifiers; the transformer temperature and both channel 1 and 2 heat-sink temperature. The transformer temperature is monitored by an internal thermal switch which is closed (shorted) during normal operation. When the transformer reaches its thermal limit, the switch opens to protect the transformer, the fan speed is turned to full, and the relay K100 is turned on, thereby isolating the load from the output of the amplifier. When the relay K100 is turned on, the mute circuitry is simultaneously activated. The mute circuitry will effectively steal the drive from the error amp. Essentially, the amplifier is safely shut down until the transformer is cool enough for the thermal switch to close.

The heatsink temperature is reported via U106. This device delivers a current proportional to the absolute temperature that is set to 1  $\mu$ A per °K of heatsink temperature by R191. (U106 is attached to the heatsink with electrically insulating and thermally conducting epoxy.) This current is delivered through R190 to develop a voltage at the anode of D119. This voltage is then used to adjust fan speed control, and will also

activate relay K100 and the mute circuitry if the heatsink reaches dangerous levels.

#### 3.8.3 Low-Frequency and Short-Circuit Protection

The output of the error amp is monitored by the window comparator, U102-B. The window comparator is designed to detect a LF (Low Frequency) condition. When this condition is detected, the comparator U5-A changes state and the amplifier goes into fault mode.

If the output signal remains in a DC condition for enough time to charge C123 through R185 to a value above the threshold of the bilateral switch Q132, then Q132 will conduct and turn on TRIAC Q131. Q131 will remain on until the voltage at Q131-2 reaches within a few volts of ground and C123 discharges enough to turn Q132 off. The detection circuit of C123 and R185 is designed to only allow Q131 to turn on during a fault condition, but it is possible to trip the circuit with a railto-rail square wave of 5-Hz. If an output device faults, typically the rail will short through the output device to the output. Q131 will then turn on and short the rail through the shorted output to ground. This will prevent the DC voltage from destroying the load. R184 is used as a path to ground for any leakage current from Q132 that may build up charge on Q131-G.

#### 3.8.4 Input Compressor

The output of the error amp is monitored by the window comparator, U102-D. Since the gain from the error amplifier output is fixed at 20, the maximum amplitude of the error amplifier is known, and any clipping will cause the error amplifier to exceed this maximum value. The window is designed to detect this maximum value plus a predetermined tolerance. When this value is exceeded, the output of the comparator goes low.

U101-D, Q100 and U100 are the major components comprising a fast-attack, slow-decay circuit used to compress the signal coming out of the VGS. This compression action only occurs when the output of the comparator, U102-D, detects clipping on the output of the error amp. It is important to note that in the event of a signal being clipped at the error amp, not only is the compressor activated, but, the red clip LED is also turned on. In this way the amplifier will not produce a distorted output, but will visually inform the user that the input signal is too large and is being compressed.



#### 3.8.5 Turn-On Delay

U104-A provides a time delay after turn-on to let the rails stabilize before connecting the load to the amplifier output. The block diagram in Figure 3.2 shows that, while the turn-on delay circuit is active, the amplifier is in fault mode.

#### 3.8.6 Output Relay Muting

The relay K100 is in series with the output of the amplifier. The relay coil is connected to U104-A, U104-B and U104-C; these inputs determine if the relay should be open (disconnecting the load from the amplifier) or closed. The fault conditions which drive the relay inputs are outlined in Figure 3.2 and listed here.

- 1. Heat sink exceeds thermal limit
- 2. Transformer exceeds thermal limit
- 3. A short has been applied to the output
- 4. There is DC on the output
- 5. The turn-on timer has not released the relay yet

#### 3.8.7 Input Muting

The summed output from U104 -A,B,C is also used to drive an inverter, U104-D, that mutes the input to the error amplifier via Q133. Q133 is a FET, which can open faster than the relay can. This saves the relay, K100, from having to switch high currents which can erode the contact surfaces.

#### 3.8.8 Auxiliary Output Jack

The auxiliary output jack allows for remote monitoring of the amplifier's fault status. The concept of the auxiliary output jack is to short two pins of a common RJ-11 connector (J5) together through a transistor any time that the amplifier is operating normally. If the amplifier is off or in any fault condition, the two pins on J5 will effectively be an open circuit.

#### 3.9 Fan Control Circuitry

There are two different kinds of input to the fan speed control. One is the heatsink temperature and the other is the input from the transformer thermal switch. The heatsink temperature is reported via U106, which is thermally connected to the heaksink. The current from U106 is delivered through R190 to develop a voltage at the anode of D119. D119 is used as part of an OR gate with channel 2 and with the transformer thermal sense.

As the reported heatsink and/or transformer temperature rises, the Darlington transistors, Q1 and Q2, are turned on harder. So, a thermally proportional voltage is supplied to the fan, allowing it to run faster as the reported temperatures increase. However, if all of the reported temperatures are below a set threshold level, the transistors Q1 and Q2 will be biased off, hence cutting off the supply voltage to the fan. This results in lower power consumption and lower noise levels during times of low-power operation.



## **4 Neutrik Connectors**

The *CE-Series* of amplifiers uses Neutrik Speakon connectors for the outputs. While the Reference Manual contains detailed instructions on how to assemble these connectors, we thought we would include the information here as well. This may help in troubleshooting problems that may have arisen from incorrect assembly.

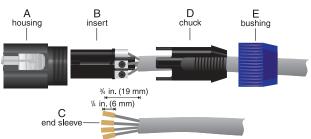


Fig. 4.1
Order of Assembly for the Neutrik Speakon NL4FC Connector

You will need two (2) Neutrik Speakon® NL4FC connectors to interface with this amplifier.\* You will also need high-quality two- or four-conductor speaker cable with the appropriate end-connectors to fit the inputs on your speakers, a pair of needle-nosed pliers and a 1.5-mm hex key to assemble the Speakon connectors.

To assemble the Neutrik Speakon NL4FC connector, complete the following steps:

Slide the bushing (E) and chuck (D) onto the end of the cable as shown (Figure 4.1).\*\*

Strip approximately <sup>3</sup>/<sub>4</sub>-inch (19-mm) of casing from the cable end. Strip approximately <sup>1</sup>/<sub>4</sub>-inch (6-mm) from the end of each of the conductors down to bare wire.

Slide the end sleeves (C) onto the wire ends and crimp in place.

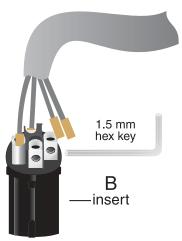


Fig. 4.2
Wiring for the Neutrik Speakon NL4FC Connector

Insert each wire with end sleeve into the top of appropriate slot of the connector insert (B) as shown in Figure 4.2. Use a 1.5-mm hex key inserted into each side slot to tighten the connection.

If the Mode switch is in the "Stereo" position (for stereo configuration), connect the positive (+) and negative (-) leads of each wire to the appropriate Channel 1 and Channel 2 connectors as shown in Figure 4.3. You may use all 4 poles of the Channel 1 output connector to feed both speakers, if you wish.

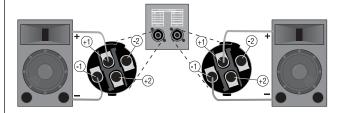


Fig. 4.3 Stereo Output Wiring

If the Mode switch is in the "Bridge" position (for mono configuration), connect the load across the (+) terminals of the connector as shown in Figure 4.4. For Bridge-Mono Mode, non-inverting output, Ch1+ is the positive (+) and Ch2+ is the negative (-).

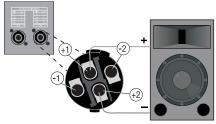


Fig. 4.4 Bridge-Mono Output Wiring

You can purchase the Speakon® NL4FC connectors from your local dealer, or contact NEUTRIK AG, Im alten riet 34, Schaan FL-9494, Furstentum Liechtenstein, 011-41-75-237-2424, FAX 011-41-75-232-5393, www.neutrik.com or Neutrik USA, Inc., 195 Lehigh Ave., Lakewood, NJ 08701-4527, (908) 901-9488, Fax (908) 901-9608, www.neutrikusa.com or Crown International, Inc., 1718 West Mishawaka Road, Elkhart, IN 46517-4095, USA, 219-294-8000, FAX 219-294-8329, www.crownaudio.com.

<sup>\*\*</sup> Your NL4FC connector kit should contain both a black and a white chuck. Use the white chuck for cable with a diameter of 0.25- to 0.5-inch (6.35- to 12.7 mm). Use the black chuck for cable with a diameter of 0.375- to 0.625-inch (9.525- to 15.875-mm).





Never short or parallel the output channels of a *CE-Series* amplifier to itself or any other amplifier.

Slide the connector insert (B) into the connector housing (A), making sure that the large notch on the outer edge of the insert lines up with the large groove on the inside of the connector housing. The insert should slide easily through the housing and out the other side until it extends approximately <sup>3</sup>/<sub>4</sub>-inch (19-mm) from the end of the housing (see Figure 4.5).

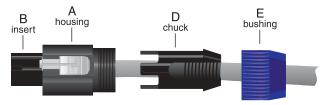


Fig. 4.5
Detailed Neutrik Speakon NL4FC Connector Assembly: Insert into Connector Housing

Slide the chuck (D) along the cable and insert into the housing, making sure that the large notch on the outer edge of the chuck lines up with the large groove on the inside of the connector housing. The chuck should slide easily into the insert/housing combination until only approximately <sup>3</sup>/<sub>8</sub>-inch (9.5-mm) of the chuck end extends from the back end of the connector as shown in Figure 4.6.

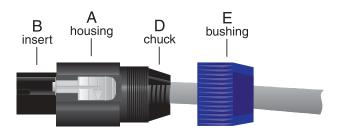


Fig. 4.6
Detailed Neutrik Speakon NL4FC Connector Assembly:
Chuck into Connector Housing

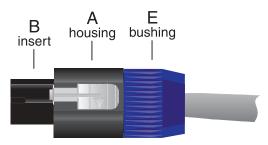


Fig. 4.7
Detailed Neutrik Speakon NL4FC Connector Assembly:
Bushing onto Connector Housing Assembly

Slide the bushing along the cable and screw onto the end of the connector combination as shown in Figure 4.7. Note that the bushing features a special locking construction which will prevent disassembly of the NL4FC connector once this cap is tightened into place. Before tightening, you may want to test the connector to make sure it has been assembled properly.

#### Why Speakon?

For amplifiers, the most popular termination device on professional products has been the dual banana (which incidentally was pioneered by Crown with the DC-300 model). However, recent regulatory requirements in Europe have outlawed the use of the dual banana plug and forced users to terminate speaker cables with spade lugs or bare ends—an approach that is clearly not advantageous to the customer who wants to reconfigure his system or quickly change out a defective product. It is possible that similar regulatory controls will appear worldwide over the next few years.

One solution to this problem is to use the Neutrik Speakon® connector. Here at Crown, we wanted to develop a system for you that eliminated the need for specialized, time-consuming, interface cables. The major loudspeaker manufacturers have been using Speakon connectors for the input termination on their products for several years now, so you can be assured of the connector's reliability in the workplace. With Speakon connectors, you can plug straight from the amp to the speaker, and start making those great sounds right away.

The Speakon connector used on this amplifier meets all known safety regulations. Once wired correctly, the connector cannot be plugged in backwards, causing the type of inverted polarity situations that are common with banana hookups. It will provide a safe, secure and reliable method of interfacing your amplifier to the load.

# PART II Component Documentation



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## 5 Parts

#### 5.1 General Information

This section contains an overview of the procedure for ordering parts from Crown's service department. The following section, Section 6, includes schematics used for referencing the circuit board components, exploded views, and parts lists.

Most mechanical and structural items are illustrated and indexed in the exploded view drawings. Where electronic parts are shown in these drawings, the schematic designations are also given.

Electronic parts located on printed circuit boards are illustrated by schematic symbols on the trace side and by component shape symbols on the component side. Where applicable, quantities of parts are also given.

#### 5.2 Standard and Special Parts

Many smaller electrical and electronic parts used in the *CE-Series* amplifiers are stocked by, and available from, electronic supply houses. However, some electronic parts that appear to be standard are actually special. Graded and matched output transistors should always be purchased from Crown Audio. A part ordered from Crown will assure an acceptable replacement. Structural items such as covers and panels are available from Crown only.

#### 5.3 Ordering Parts

When ordering parts, be sure to give the amplifier model and serial number and include a description and the Crown Part Number (CPN) from the parts listing. Price quotes are available on request.

#### 5.4 Shipment

Shipment will be normally made by UPS or best other method unless you specify otherwise. Shipments are made to and from Elkhart, IN, only. Established accounts with Crown will receive shipment freight prepaid and will be billed. All others will receive shipment on a C.O.D. or pre-payment (check or credit card) basis.

#### 5.5 Terms

Normal terms are pre-paid. Net-30 days applies to only those firms having pre-established accounts with Crown. If pre-paying, the order must be packed and weighed before a total bill can be established, after which an amount due will be issued and shipment made upon receipt of pre-payment. New parts returned for credit are subject to a 10% re-stocking fee. Authorization from the Crown Parts Department must be obtained before returning parts for credit.

Crown is not a general parts warehouse. Parts sold by the Crown Parts Department are solely for servicing Crown products. Part prices and availability subject to change without notice.

To order parts... Call the Crown Parts Department at:

Ph. (574) 294-8200 Toll Free: **(800) 342-6939** Fax: (574) 294-8124



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# **6 Exploded Views, Parts Lists**

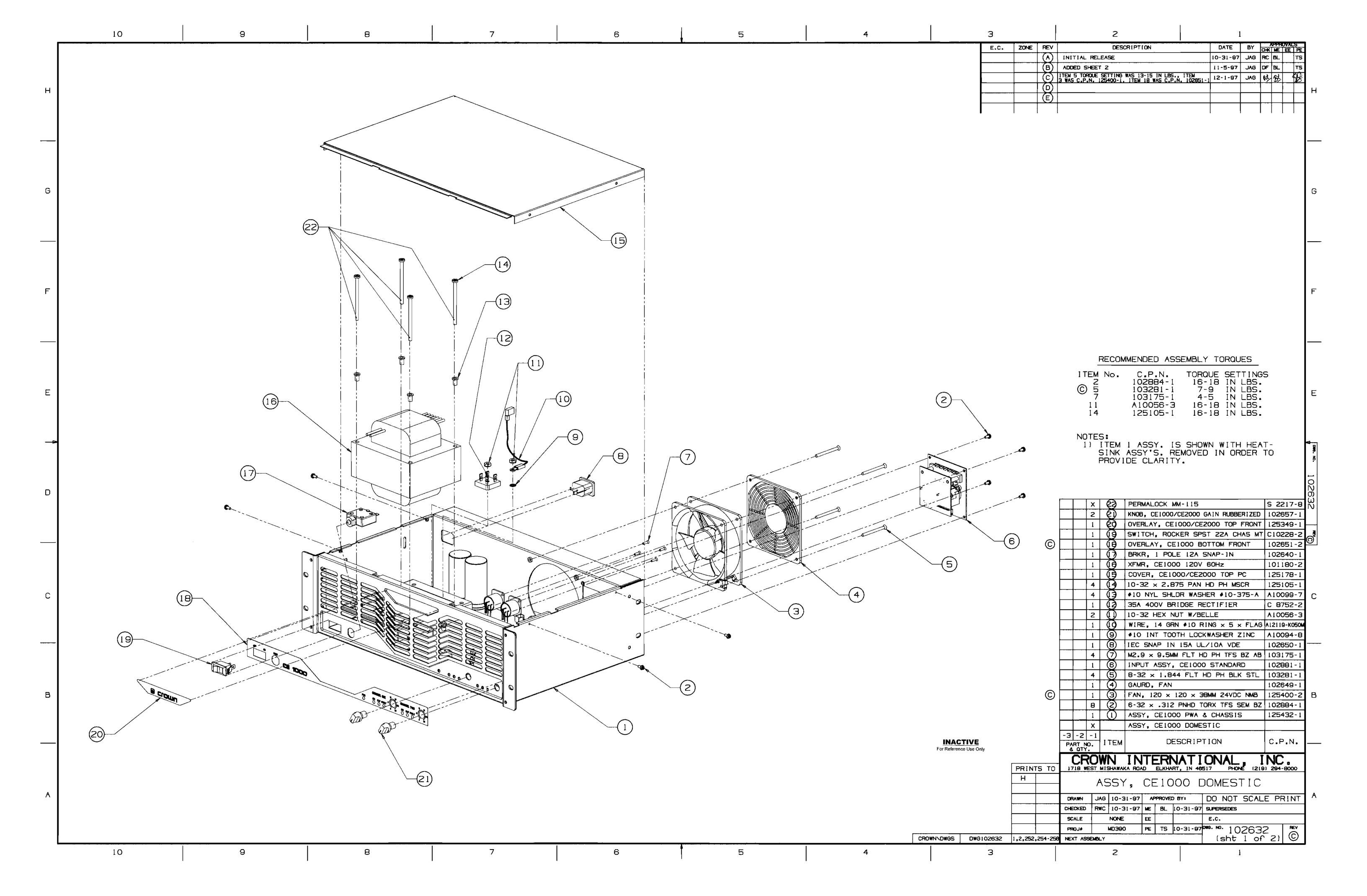


## See illustration on next page (102632).

Obtain CPNs (Crown Part Numbers) from the bill of material following the illustration. The CPNs on the illustration may not be up-to-date.

Notes: 1) Item 1 assy. is shown with heatsink assys. removed in order to provide clarity.

Assy. CE 1000 Domestic

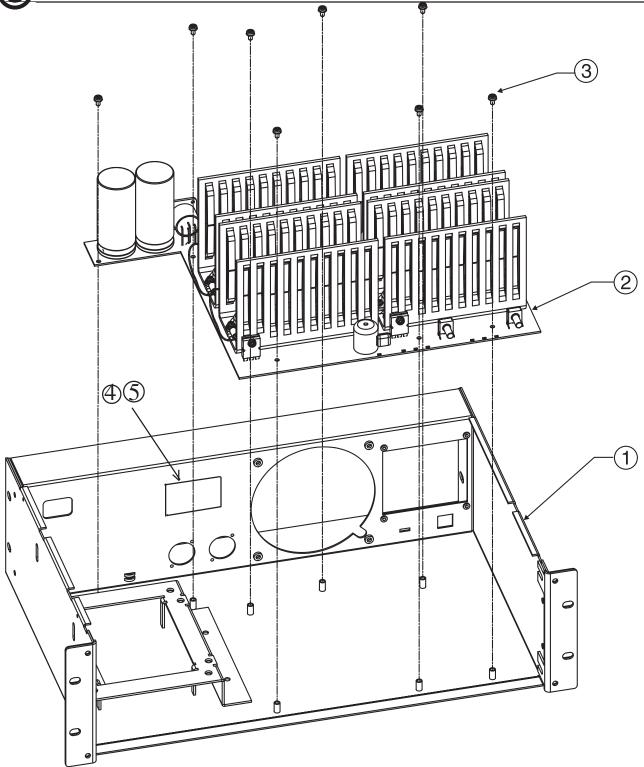




#### Assy. CE 1000 Domestic

<u>Item</u>	<u>Qty.</u>	<u>Description</u>		<u>CPN</u>
1	1	Chassis, CE 1000/CE 2000 WELD		133817-1
2	8	6-32 x .312 PNHD TORX TFS SEM BZ		102884-1
3 3	1 1	Fan, 120 x 120 x 38mm 24VDC NMB Fan, 120 x 120 x 38mm 24VDC 140CFM	old new	125400-2 133551-1
4	1	Guard, Fan		102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL		103281-1
6	1	Input Assembly, CE1000 Standard		126773-4
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB		103175-1
8	1	IEC Snap IN 15A UL/10A VDE		102650-1
9	1	#10 INT Tooth Lockwasher Zinc		A10094-8
10	1	Wire, 14 GRN #10 Ring x 5 x FLAG		A12119- K050M
11	2	10-32 Hex Nut w/Belle		A10056-3
12	1	35A 400V Bridge Rectifier		C 8752-2
13	4	#10 NYL SHLDR Washer #10-375-A		A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR		125105-1
15	1	Cover, CE 1000/CE 2000 Top PC		133824-1
16	1	XFMR, CE 1000 120V 60HZ		101180-2
17	1	BRKR, 1 Pole 12A Snap-in		102640-1
18	1	Overlay, CE 1000 Bottom Front		102651-5
19	1	Switch, Rocker SPST 22A CHAS MT		126459-1
20	1	Overlay, CE 1000/CE 2000 Top Front		128284-1
21	2	Knob, CE 1000/CE 2000 Gain Rubberized		102657-1
22	Χ	Permalock MM-115		S 2217-8





Note: Item 1 is shown with front face plate removed in order to provide clarity.

#### Assy. CE 1000 PWA & Chassis

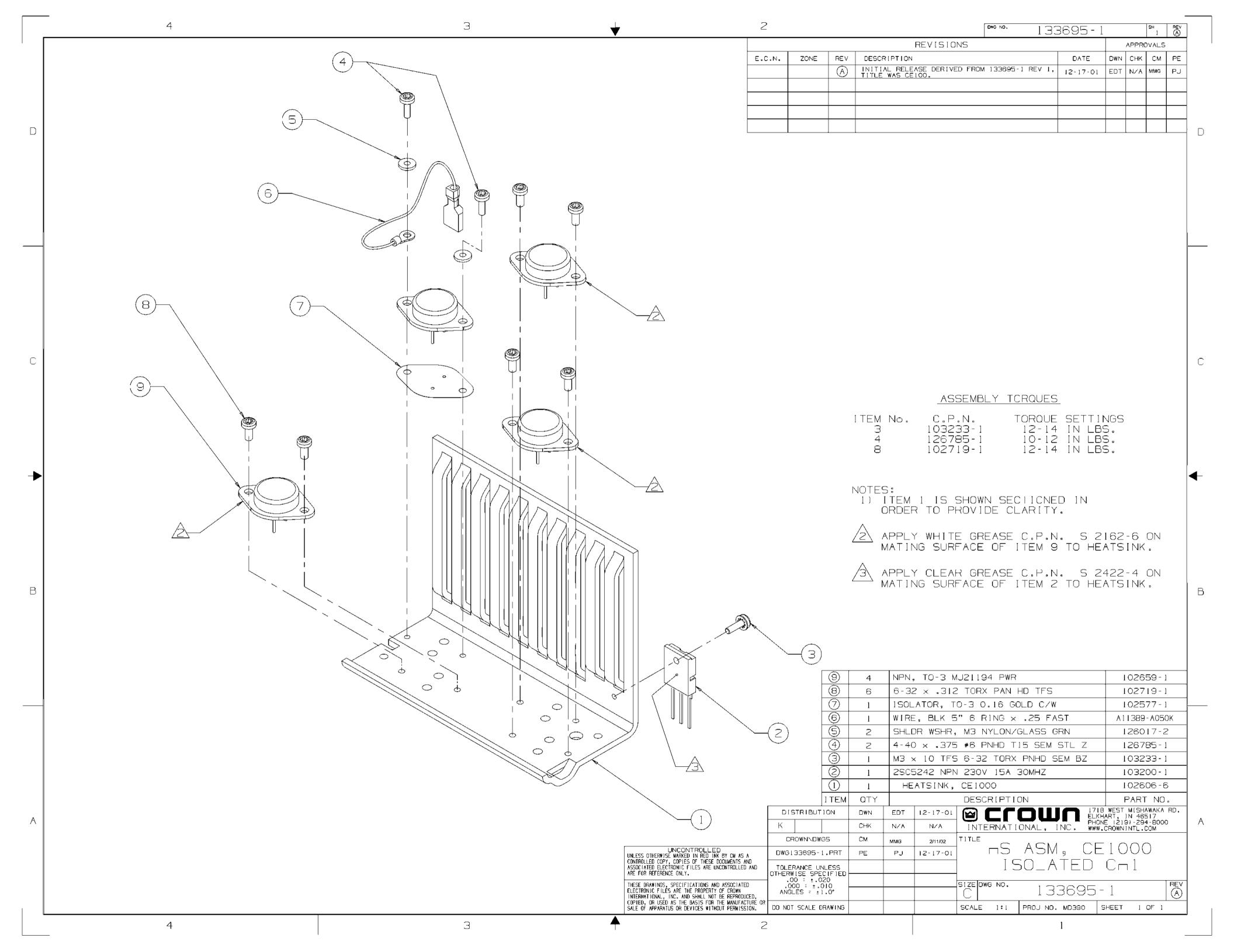


#### Assy. CE 1000 PWA & Chassis

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Chassis, CE 1000/CE 2000 WELD/AP/PC/SP	133817-1
2	1	PWA, CE1000 MAIN	127451-4
3	8	6-32 X .25 Torx Pnhd Nylon	132240-10604
4	1	Blank Plate	126730-1
5	2	Screws	126979-1



## See illustration on next page (133695-1).

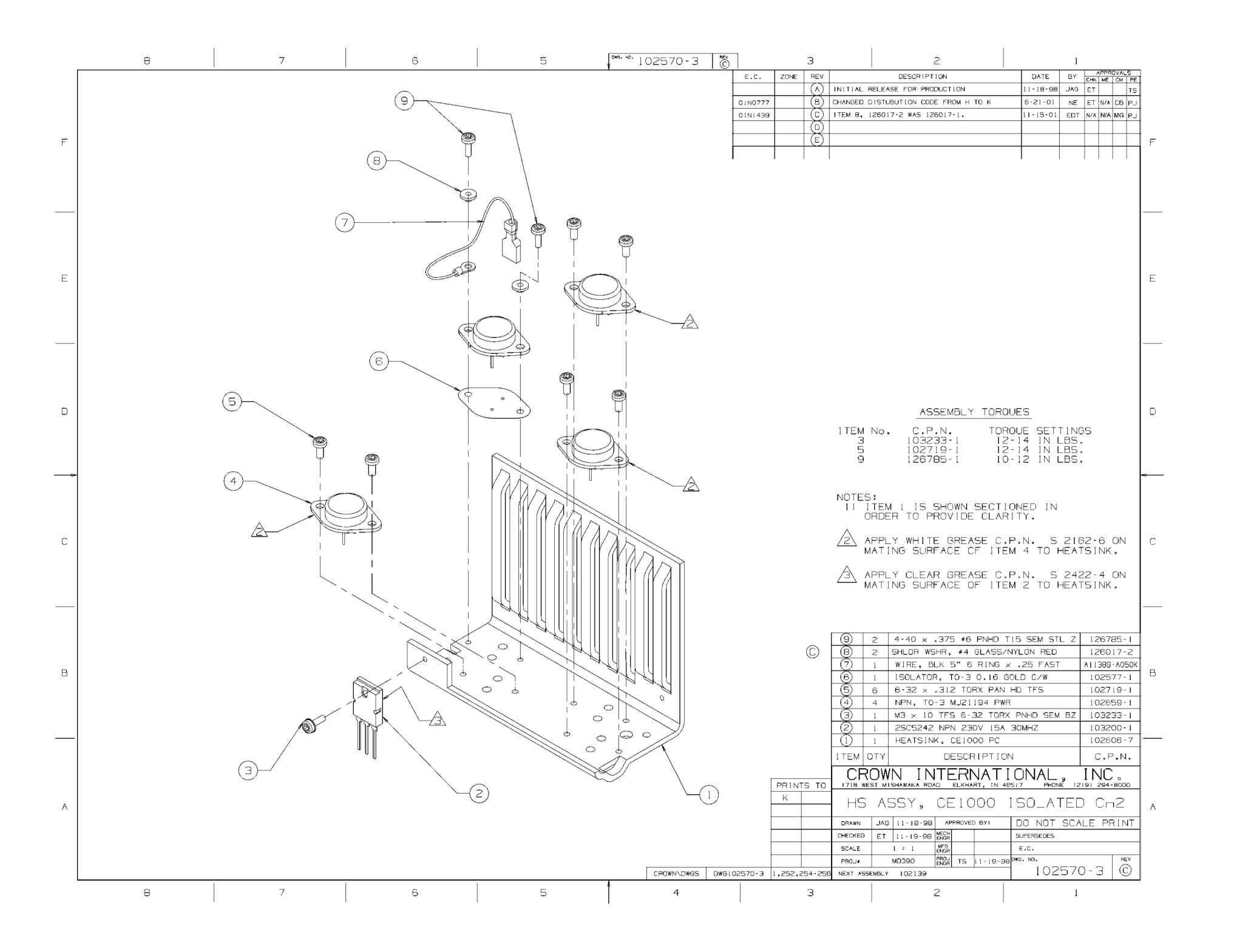




<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE1000	102606-6
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1
5	2	NYL .115 SHLDR WSHR	126017-2
6	1	Wire, BLK 5" 6 RING x .25 FAST	A11389-A050K
7	1	Isolator, TO-3 0.16 GOLD C/W	102577-1
8	6	6-32 x .312 TORX PAN HD TFS	102719-1
9	4	NPN, TO-3 MJ21194 PWR	102659-1



## See illustration on next page (102570-3).

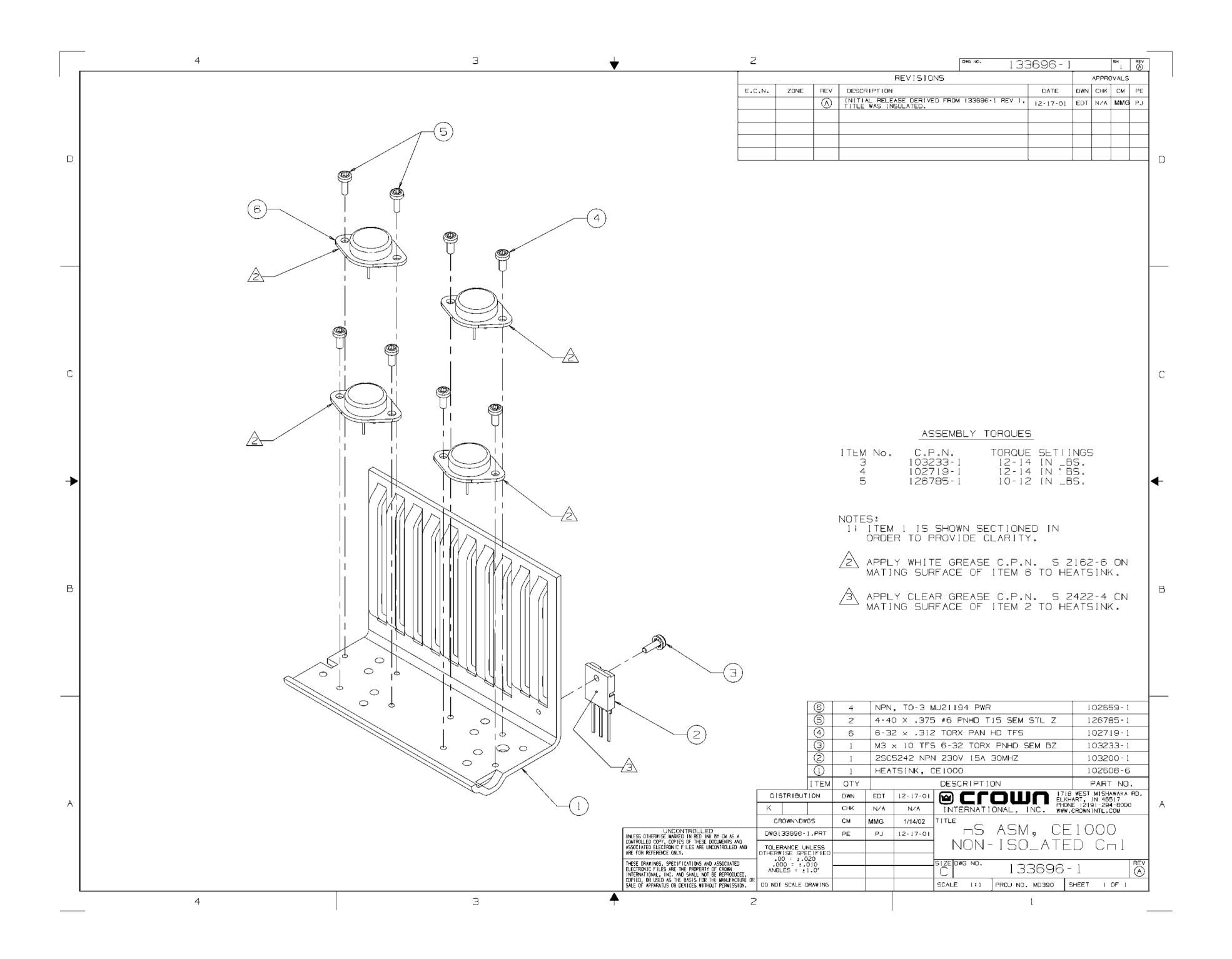




<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE1000	102606-7
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	4	NPN, TO-3 MJ21194 PWR	102659-1
5	6	6-32 x .312 TORX PAN HD TFS	102719-1
6	1	Isolator, TO-3 0.16 GOLD C/W	102577-1
7	1	Wire, BLK 5" 6 RING x .25 FAST	A11389-A050K
8	2	NYL .115 SHLDR WSHR	126017-2
9	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1



## See illustration on next page (133696-1).

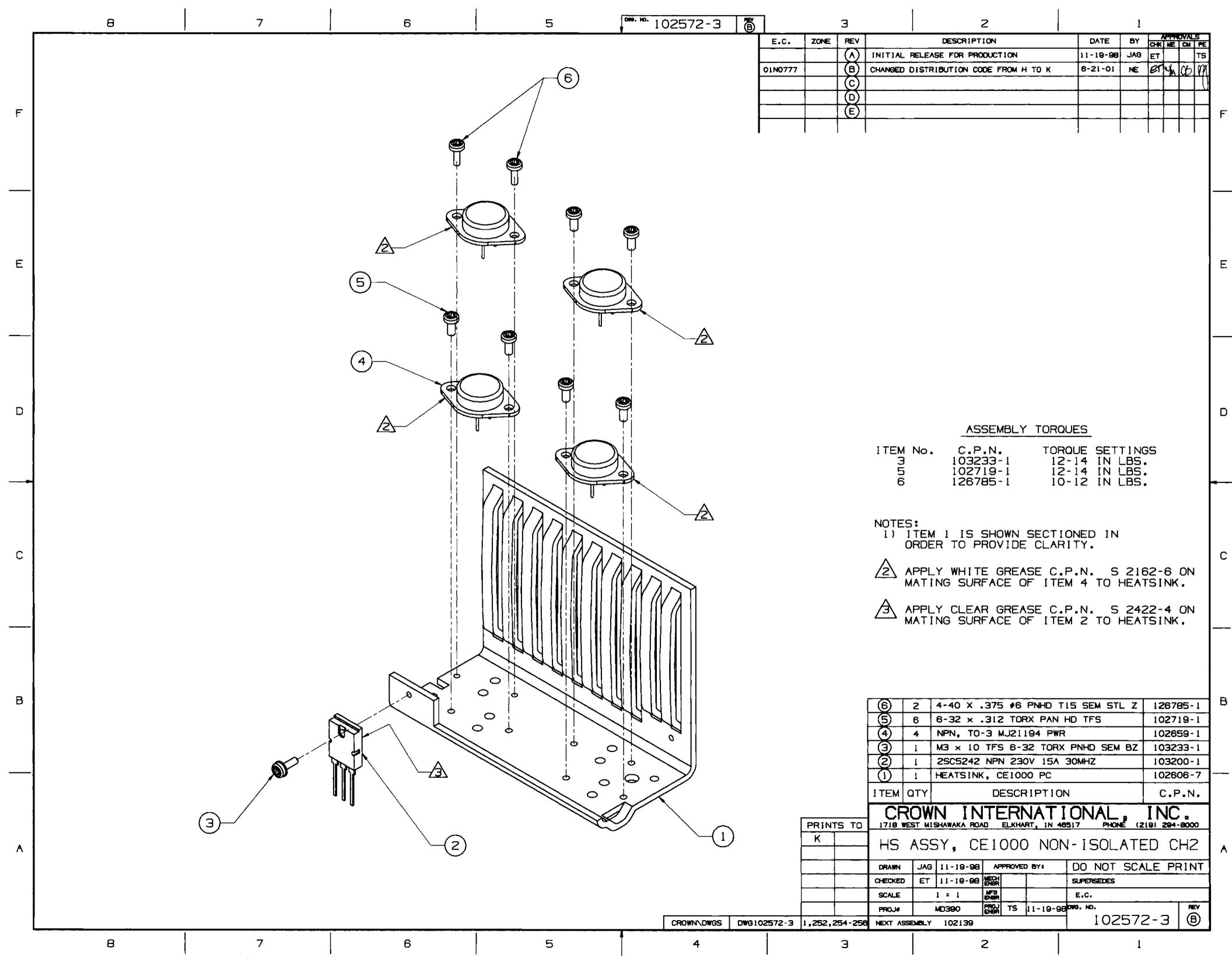




<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE1000	102606-6
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	6	6-32 x .312 TORX PAN HD TFS	102719-1
5	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1
6	4	NPN, TO-3 MJ21194 PWR	102659-1



## See illustration on next page (102572-3).





<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE1000	102606-7
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	4	NPN, TO-3 MJ21194 PWR	102659-1
5	6	6-32 x .312 TORX PAN HD TFS	102719-1
6	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1

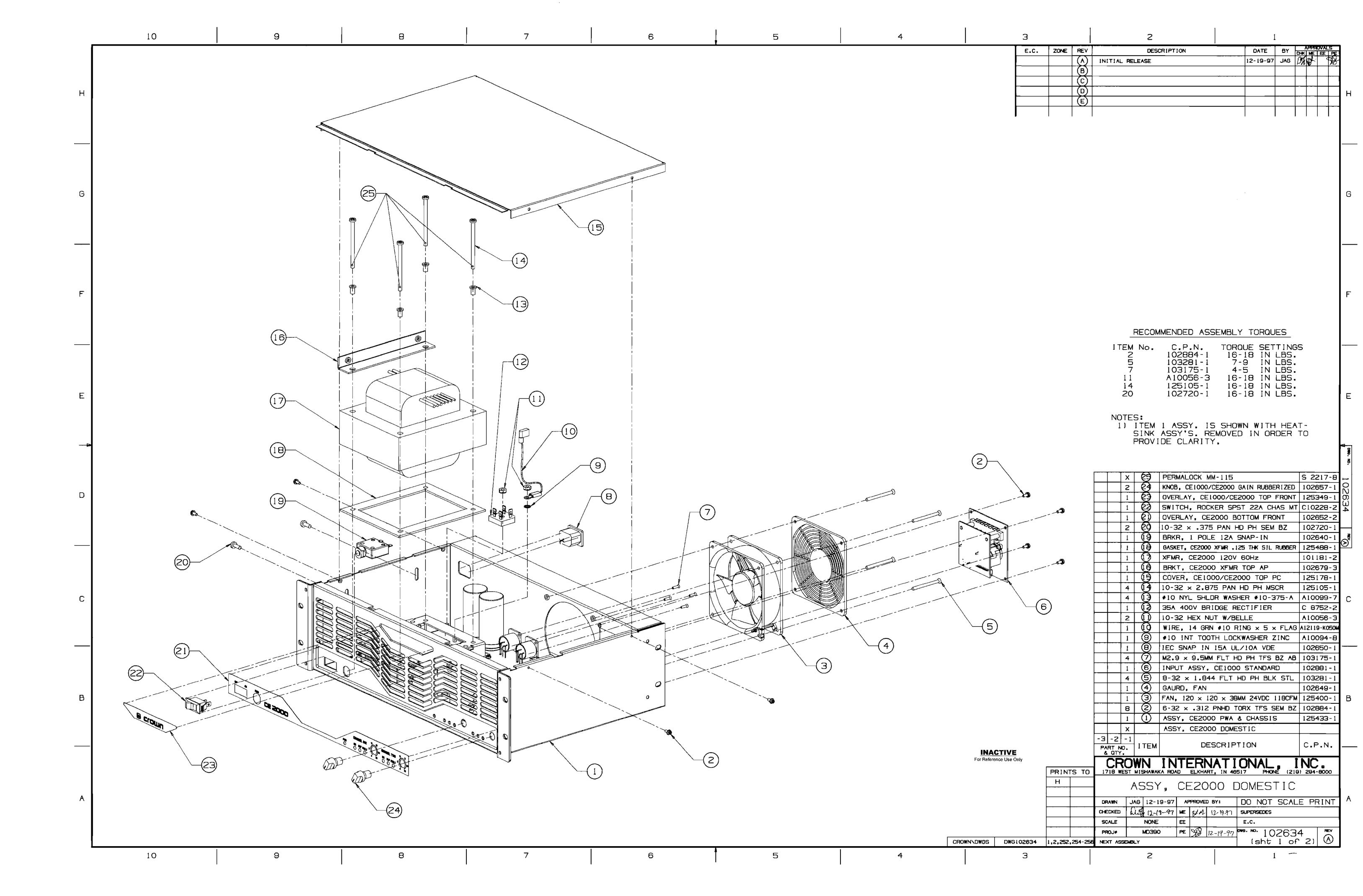


See illustration on next page (102634).

Obtain CPNs (Crown Part Numbers) from the bill of material following the illustration. The CPNs on the illustration may not be up-to-date.

Notes: 1) Item 1 assy. is shown with heatsink assys. removed in order to provide clarity.

Assy. CE 2000 Domestic

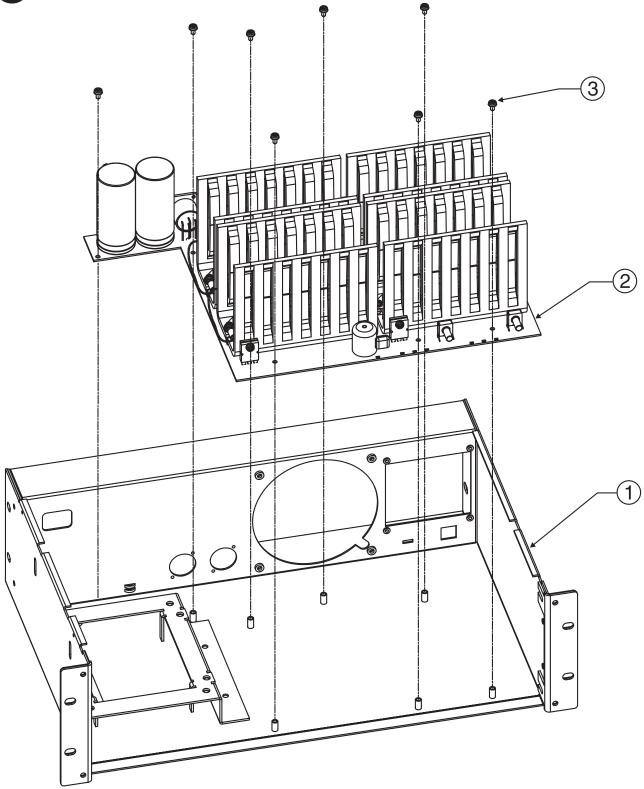




#### Assy. CE 2000 Domestic

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Chassis, CE1000/CE2000 WELD	133817-1
2	8	6-32 x .312 PNHD TORX TFS SEM BZ	102884-1
3	1	Fan, 120 x 120 x 38mm 24VDC 118CFM	133551-1
4	1	Guard, Fan	102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL	103281-1
6	1	Input Assembly, CE1000 Standard	126773-4
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB	103175-1
8	1	IEC Snap In 15A UL/10A VDE	102650-1
9	1	#10 INT Tooth Lockwasher Zinc	A10094-8
10	1	Wire, 14 GRN #10 Ring x 5 x FLAG	A12119- K050M
11	2	10-32 Hex Nut w/Belle	A10056-3
12	1	35A 400V Bridge Rectifier	C 8752-5
13	4	#10 NYL SHLDR Washer #10-375-A	A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR	125105-1
15	1	Cover, CE 1000/CE 2000 Top PC	133824-1
16	1	BRKT, CE 2000 XFMR TOP AP	133820-1
17	1	XFMR, CE 2000 120V 60HZ	101181-3
18	1	Gasket, CE 2000 XFMR .125 THK SIL Rubber	125488-1
19	1	BRKR, 1 Pole 18A Snap-in	102641-1
20	2	10-32 x .375 PAN HD PH SEM BZ	102720-1
21	1	Overlay, CE 2000 Bottom Front	102652-5
22	1	Switch, Rocker SPST 22A CHAS MT	126459-1
23	1	Overlay, CE 1000/CE 2000 Top Front	128284-1
24	2	Knob, CE 1000/CE 2000 Gain Rubberized	102657-1
25	Χ	Permalock MM-115	S 2217-8





Note: Item 1 is shown with front face plate removed in order to provide clarity.

#### Assy. CE 2000 PWA & Chassis

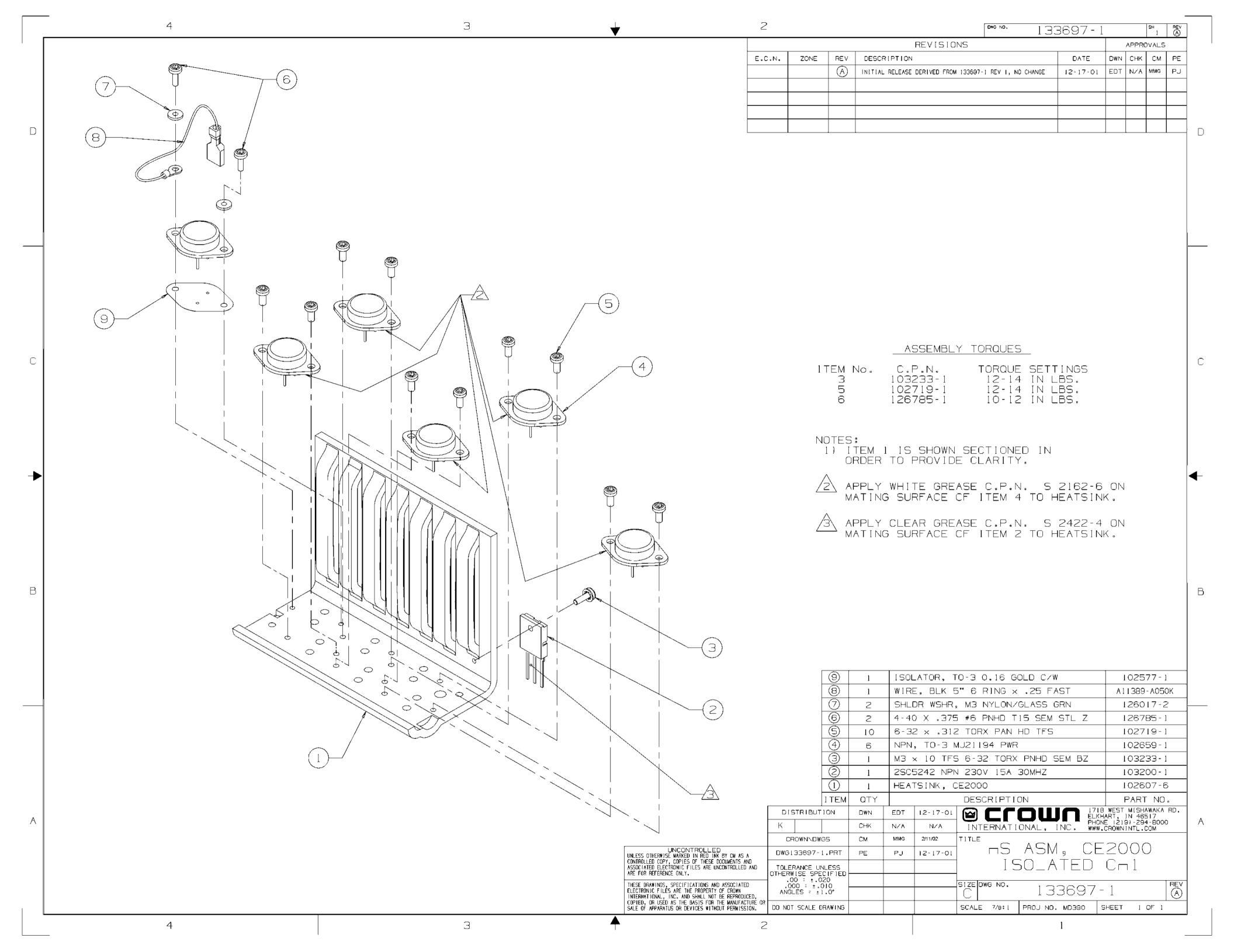


#### Assy. CE 2000 PWA & Chassis

<u>Item</u>	<u> Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Chassis, CE 1000/CE 2000 WELD/AP/PC/SP	125612-2
2	1	PWA, CE 2000 Main	102140-6
3	8	MSCR, 6-32X.25 TORX PNHD NYLON	132240-10604



## See illustration on next page (133697-1).

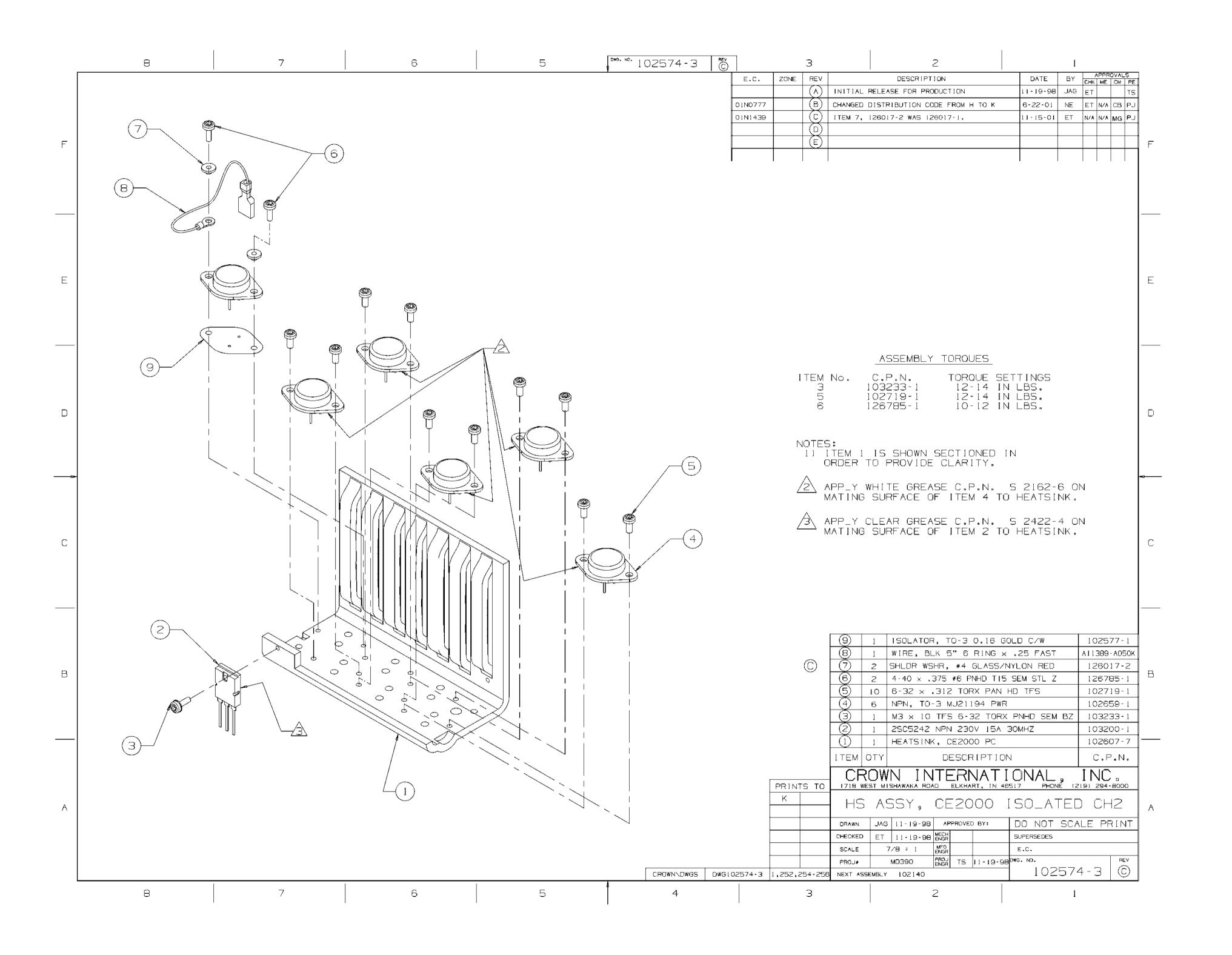




<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE 2000	102607-6
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	6	NPN, TO-3 MJ21194 PWR	102659-1
5	10	6-32 x .312 TORX PAN HD TFS	102719-1
6	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1
7	2	NYL .115 SHLDR WSHR	126017-2
8	1	Wire, BLK 5" 6 RING x .25 FAST	A11389-A050K
9	1	Isolator, TO-3 0.16 GOLD C/W	102577-1



## See illustration on next page (102574-3).

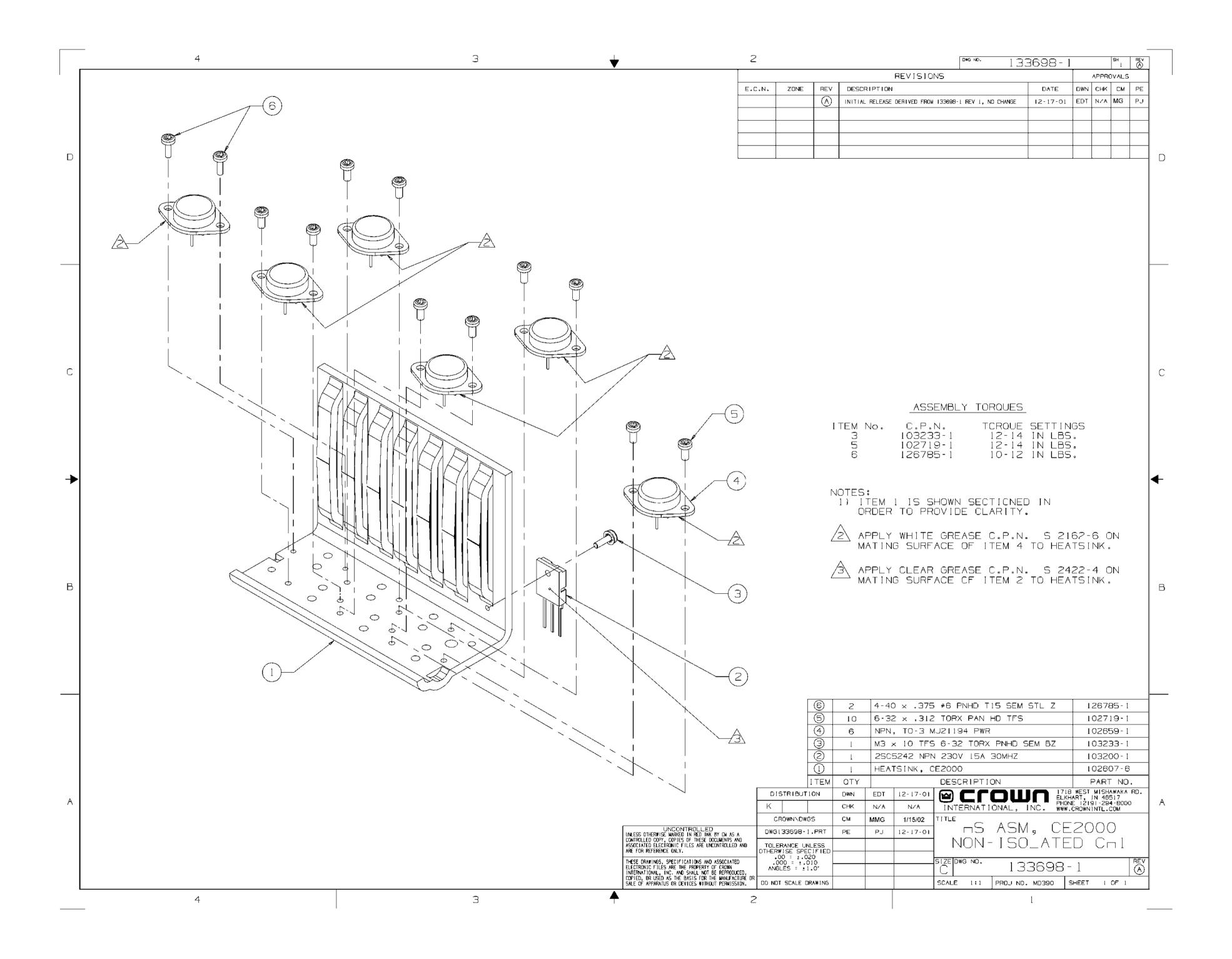




<u>ltem</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE 2000	102607-7
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	6	NPN, TO-3 MJ21194 PWR	102659-1
5	10	6-32 x .312 TORX PAN HD TFS	102719-1
6	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1
7	2	NYL .115 SHLDR WASHER	126017-2
8	1	Wire, BLK 5" 6 RING x .25 FAST	A11389-A050K
9	1	Isolator, TO-3 0.16 GOLD C/W	102577-1



### See illustration on next page (133698-1).

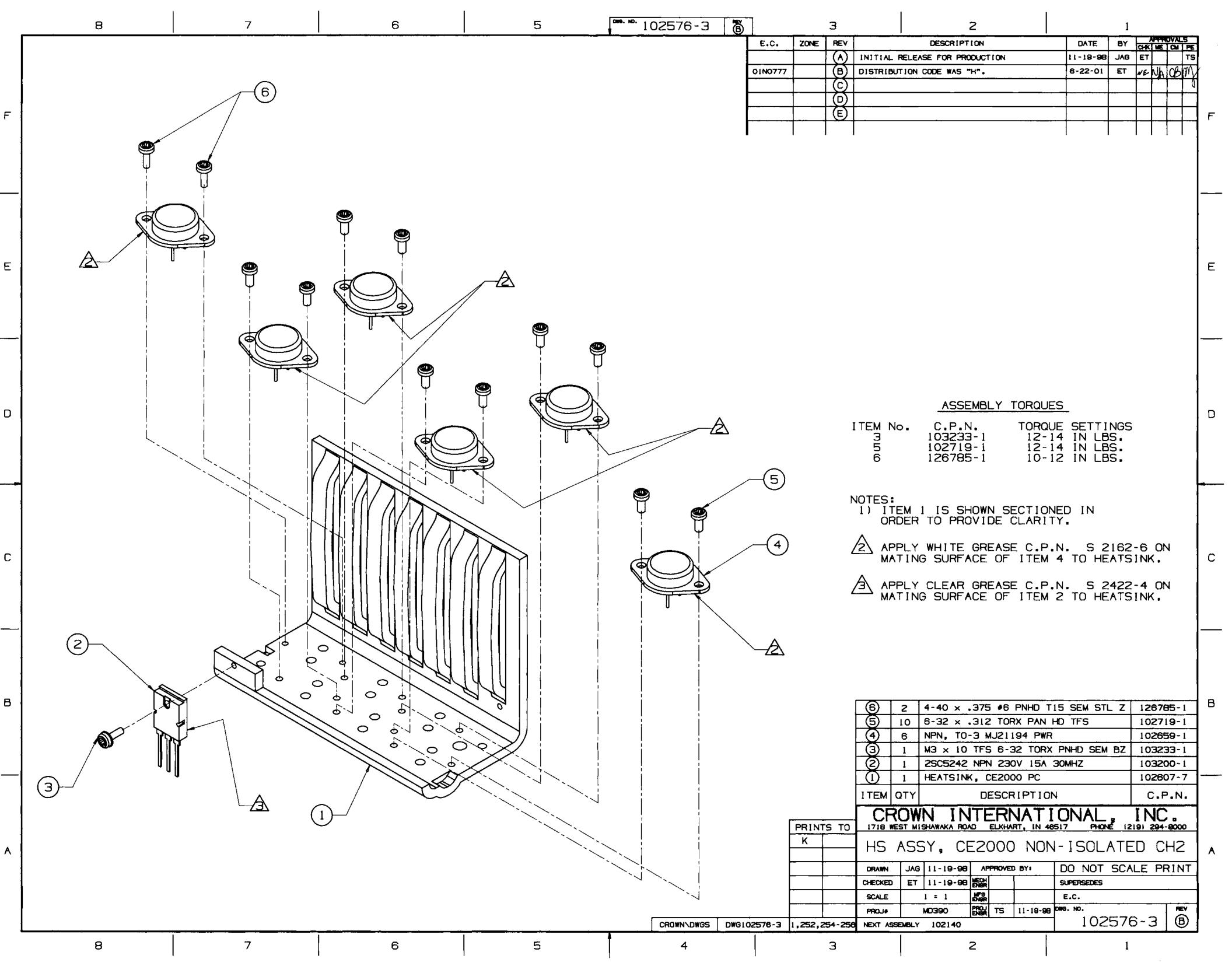




<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE 2000	102607-6
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	6	NPN, TO-3 MJ21194 PWR	102659-1
5	10	6-32 x .312 TORX PAN HD TFS	102719-1
6	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1



## See illustration on next page (102576-3).





<u>ltem</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1	Heatsink, CE 2000	102607-7
2	1	2SC5242 NPN 230V 15A 30MHZ	103200-1
3	1	M3 x 10 TFS 6-32 TORX PNHD SEM BZ	103233-1
4	6	NPN, TO-3 MJ21194 PWR	102659-1
5	10	6-32 x .312 TORX PAN HD TFS	102719-1
6	2	4-40 x .437 TORX PAN HD TFS SEM	126785-1



# Assy. CE 1000 Domestic (using PWA 102139-8) Refer to drawing on page 6-2.

<u>Item</u>	<u>Qty.</u>	Description	<u>CPN</u>
1	1 1 1	Assy, CE1000 PWA & Chassis PWA, CE1000 Main/Input Chassis, CE1000/CE2000 125612-3	102139-8 [NOW 133817-1]
2	8	Screw, 6-32X.312 Torx Pnhd Sem	103433-70605
3	1	Fan, 120 x 120 x 38mm 24VDC 140CFM	133551-1
4	1	Guard, Fan	102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL	103281-1
6	1	Asm, CE1000/CE2000 Input	126773-3
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB	103175-1
8	1	IEC Snap IN 15A UL/10A VDE	102650-1
9	1	[was #10 INT Tooth Lockwasher Zinc	[ was A10094-8]
10	1	Wire, 14 GRN Flagx5xring	A12119-M050N
11	2	8-32 Hex Nut w/Belle	A11056-2
12	1	35A 400V Bridge Rectifier	C 8752-2
13	4	#10 NYL SHLDR Washer #10-375-A	A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR	125105-1
15	1	[was Cover, CE 1000/CE 2000 Top PC]	[was 125178-1]
16	1	XFMR, CE 1000 120V 60HZ	101180-2
17	1	BRKR, 1 Pole 12A Snap-in	102640-1
18	1	[was Overlay, CE 1000 Bottom Front]	[was 102651-2]
19	1	Switch, Rocker SPST 22A CHAS MT	C10228-2
20	1	[was Overlay, CE 1000/CE 2000 Top Front]	[was 125349-1]
21	2	[was Knob, CE 1000/CE 2000 Gain Rubberized]	[was 102657-1]
22	Χ	[was Permalock MM-115]	[was S 2217-8]



## Assy. CE 1000 Domestic (using PWA 102139-8) continued Parts NOT shown in drawing on page 6-2:

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
	1	Wire, 14 blk fast fast x 4.0 x flag	A11384-C040M
	1	Wire, 14 blk fast x 14 x tab	A11384-C140N
	1	Wire, 14 blk flag x 14 x flag	A11384M140M
	1	Wire, 14 grn #8ring x 5 x flag	A12119-N050M
	3	Tie, cable 4" or more 18 lb	C 1811-6
	Χ	Threadlocker, Titan 7242 50 ML	S 2217-8
	4	Screw, 6-32X.312 Torx Pnhd Sem	103415-70605
	8	Mscr, 6-32x.25 Torx Pn Hd Sem	103435-70604
	1	Serffan 120x120x38mm24VDC118CFM	125400-1
	1	Chas, CE1000 PWA &	125432-4
	1	Clip, D390 Breaker Mounting	125476-2
	1	Switch, rocker SPST 22A Chas Mt	126459-1



## Assy. CE 1000A Domestic (using PWA 102139-8) Refer to drawing on page 6-2.

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1 1 1	Assy, CE1000 PWA & Chassis PWA, Main/input CE1000A Chas, CE1000A/CE2000A Charcoal	127451-4 126729-5
2	8	[was Screw, 6-32X.312 Torx Pnhd Sem]	[was103433-70605]
3	1	Fan, 120 x 120 x 38mm 24VDC 140CFM	133551-1
4	1	Guard, Fan	102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL	103281-1
6	1	Asm, CE1000/2000A Input	126773-4
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB	103175-1
8	1	IEC Snap IN 15A UL/10A VDE	102650-1
9	1	[was #10 INT Tooth Lockwasher Zinc	[ was A10094-8]
10	1	Wire, 14 GRN Flagx5xring	A12119-M050N
11	2	8-32 Hex Nut w/Belle	A11056-2
12	1	35A 400V Bridge Rectifier	C 8752-2
13	4	#10 NYL SHLDR Washer #10-375-A	A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR	125105-1
15	1	[was Cover, CE 1000/CE 2000 Top PC]	[was 125178-1]
16	1	XFMR, CE 1000 120V 60HZ	101180-2
17	1	BRKR, 1 Pole 12A Snap-in	102640-1
18	1	[was Overlay, CE 1000 Bottom Front]	[was 102651-2]
19	1	Switch, Rocker SPST 22A Chas Mt	126459-1
20	1	[was Overlay, CE 1000/CE 2000 Top Front]	[was 125349-1]
21	2	[was Knob, CE 1000/CE 2000 Gain Rubberized	] [was 102657-1]
22	X	[was Permalock MM-115]	[was S 2217-8]



## Assy. CE 1000A Domestic (using PWA 102139-8) continued Parts NOT shown in drawing on page 6-2:

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
	1	Wire, 14 blk fast fast x 4.0 x flag	A11384-C040M
	1	Wire, 14 blk fast x 14 x tab	A11384-C140N
	1	Wire, 14 blk flag x 14 x flag	A11384M140M
	1	Wire, 14 grn #8ring x 5 x flag	A12119-N050M
	3	Tie, cable 4" or more 18 lb	C 1811-6
	Χ	Threadlocker, Titan 7242 50 ML	S 2217-8
	8	Mscr, 6-32x.25 Torx Pn Hd Sem	103435-70604
	1	Pnl, CD output blank	126730-1
	1	Clip, D390 Breaker Mounting	125476-2
	1	.250D x .18ID x 1.062 AL SPCR	A10100-50
	1	8-32x3/8 pnhd T15 Thdrol sem b	126979-1
	1	6-32x.31 pnhd acr ph tr isem b	127436-1
	1	Serf PWA, CE1000 Main/input	02129-11



# Assy. CE 2000 Domestic (Using PWA 102140-8) Refer to diagram on page 6-14.

<u>Item</u>	Qty.	<u>Description</u>	<u>CPN</u>
1	1 1 1	Assy, CE 2000 PWA & Chassis PWA, CE2000 Main/input Chassis, CE1000/CE2000	102140-8 125612-3
2	8	[was 6-32 x .312 PNHD TORX TFS SEM BZ]	[was 102884-1]
3	1	Fan, 120 x 120 x 38mm 24VDC 140CFM	133551-1
4	1	Guard, Fan	102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL	103281-1
6	1	Asm, CE1000/CE2000 input	126773-3
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB	103175-1
8	1	IEC Snap In 15A UL/10A VDE	102650-1
9	1	[was #10 INT Tooth Lockwasher Zinc]	[was A10094-8]
10	1	[was Wire, 14 GRN #10 Ring x 5 x FLAG]	[was A12119-K050M]
11	2	8-32 Hex Nut w/Belle	A11056-2
12	1	35A 400V Bridge Rectifier	C 8752-2
13	4	#10 NYL SHLDR Washer #10-375-A	A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR	125105-1
15	1	[was Cover, CE 1000/CE 2000 Top PC]	[was 125178-1]
16	1	BRKT, CE 2000 XFMR TOP AP	102679-3
17	1	XFMR, CE2K 120V 60Hz w/bellybnd	101181-3
18	1	Gasket, CE 2000 XFMR .125 THK SIL Rubber	125488-1
19	1	BRKR, 1 Pole 18A Snap-in	102641-1
20	2	10-32 x .375 PAN HD PH SEM BZ	102720-1
21	1	[was Overlay, CE 2000 Bottom Front]	[was 102652-2]
22	1	Switch, Rocker SPST 22A CHAS MT	126459-1
23	1	[was Overlay, CE 1000/CE 2000 Top Front]	[was 125349-1]
24	2	[was Knob, CE 1000/CE 2000 Gain Rubberized]	[was 102657-1]
25	Χ	Permalock MM-115	S 2217-8



# Assy. CE 2000 Domestic (using PWA 102140-8) continued Parts NOT shown in drawing on page 6-14:

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
	1	Wire, 14 blk fast fast x 4.0 x flag	A11384-C040M
	1	Wire, 14 blk fast x 14 x tab	A11384-C140N
	1	Wire, 14 blk flag x 14 x flag	A11384M140M
	1	Wire, 14 grn #8ring x 5 x flag	A12119-N050M
	3	Tie, cable 4" or more 18 lb	C 1811-6
	Χ	Threadlocker, Titan 7242 50 ML	S 2217-8
	8	Mscr, 6-32x.25 Torx Pn Hd Sem	103435-70604
	1	Clip, D390 Breaker Mounting	125476-2
	1	375 x 205 x 250 nylon spacer	A10101-18
	1	Wire, 14 grn flagx5xring	A12119-M050N
	4	Screw, 6-32x.312 torx pnhd sem	103415-70605
	4	Sems, 6-32x.31 torx pnhd star	103433-70605
	1	Serffan120x120x38mm24VDC118CFM	125400-1
	1	Chas, CE2000 PWA &	125433-4



# Assy. CE 2000A Domestic (Using PWA 127452-4) Refer to diagram on page 6-14.

<u>Item</u>	<u>Qty.</u>	<u>Description</u>	<u>CPN</u>
1	1 1 1	Assy, CE 2000A PWA & Chassis PWA, Main/input CE2000 Chas, CE1000A/CE20000A charcoal	127452-4 126729-5
2	8	[was 6-32 x .312 PNHD TORX TFS SEM BZ]	[was 102884-1]
3	1	Fan, 120 x 120 x 38mm 24VDC 140CFM	133551-1
4	1	Guard, Fan	102649-1
5	4	8-32 x 1.844 FLT HD PH BLK STL	103281-1
6	1	Asm, CE1000/2000A input	126773-4
7	4	M2.9 x 9.5mm FLT HD PH TFS BZ AB	103175-1
8	1	IEC Snap In 15A UL/10A VDE	102650-1
9	1	[was #10 INT Tooth Lockwasher Zinc]	[was A10094-8]
10	1	[was Wire, 14 GRN #10 Ring x 5 x FLAG]	[was A12119-K050M]
11	2	8-32 Hex Nut w/Belle	A11056-2
12	1	35A 400V Bridge Rectifier	C 8752-2
13	4	#10 NYL SHLDR Washer #10-375-A	A10099-7
14	4	10-32 x 2.875 PAN HD PH MSCR	125105-1
15	1	[was Cover, CE 1000/CE 2000 Top PC]	[was 125178-1]
16	1	BRKT, CE 2000 XFMR TOP AP	102679-3
17	1	XFMR, CE2K 120V 60Hz w/bellybnd	101181-3
18	1	Gasket, CE 2000 XFMR .125 THK SIL Rubber	125488-1
19	1	BRKR, 1 Pole 18A Snap-in	102641-1
20	2	10-32 x .375 PAN HD PH SEM BZ	102720-1
21	1	[was Overlay, CE 2000 Bottom Front]	[was 102652-2]
22	1	Switch, Rocker SPST 22A CHAS MT	126459-1
23	1	[was Overlay, CE 1000/CE 2000 Top Front]	[was 125349-1]
24	2	[was Knob, CE 1000/CE 2000 Gain Rubberized]	[was 102657-1]
25	X	Permalock MM-115	S 2217-8



# Assy. CE 2000A Domestic (using PWA 127452-4) continued Parts NOT shown in drawing on page 6-14:

<u>Item</u>	Qty.	<u>Description</u>	<u>CPN</u>
	1	Wire, 14 blk fast fast x 4.0 x flag	A11384-C040M
	1	Wire, 14 blk fast x 14 x tab	A11384-C140N
	1	Wire, 14 blk flag x 14 x flag	A11384M140M
	1	Wire, 14 grn #8ring x 5 x flag	A12119-N050M
	3	Tie, cable 4" or more 18 lb	C 1811-6
	Χ	Threadlocker, Titan 7242 50 ML	S 2217-8
	8	Mscr, 6-32x.25 Torx Pn Hd Sem	103435-70604
	1	Clip, D390 Breaker Mounting	125476-2
	1	375 x 205 x 250 nylon spacer	A10101-18
	1	Wire, 14 grn flagx5xring	A12119-M050N
	1	.250D x .18ID x 1.062 AL spcr	A10100-50
	1	Pnl, CD output blank	126730-1
	2	8-32x3/8 pnhd T15 thdrol sem b	126979-1
	4	6-32x.31 pnhd acr ph tr isem b	127436-1
	1	7.5: cable tie&clamp	C 1813-2
	1	Serf PWA, CE2000 Main/input	102140-11



# 7 Module and Schematic Information

#### 7.1 General Information

Since the introduction of the CE series family of amplifiers there have been several updates and revisions. Many of these changes called for new modules. The following pages list all modules used as of the printing of this manual, along with suggested service replacements for obsolete modules where applicable. Call the Crown Technical Support Group if you require a parts list or schematic for a module not included in this manual.

The schematics referenced and provided are representative only. There may be slight variations between amplifier to amplifier. These schematics are intended to be used for troubleshooting purposes only.

Note on circuit board designations: Crown circuit boards are referenced with a PWA and/or PWB part number. PWA stands for <u>Printed Wire Assembly</u>. This is the completed circuit board with all components assembled. PWB stands for <u>Printed Wire Board</u>. This is the circuit board only, without components.

#### 7.2 CE-1000, UT-1010, M-120, S2

#### 7.2.1 Main PWAs:

#### 102139-5

Main PWA built on 102138-5 PWB. Used only in early CE-1000. Use 127451-4 as service replacement.

#### 102139-6

Main PWA built on 102138-6 PWB. Replaced 102139-5. Use 127451-4 as service replacement.

#### 102139-8

Main PWA built on 102138-8 PWB. Replaced 102138-6. First main module with sensitivity switch. Use 127451-4 as service replacement.

#### <u>102139-9</u>

Main PWA built on 102138-9 PWB. Used only in export models. Added 0.775V sensitivity. Use 127451-4 as service replacement.

#### 102139-11

Main PWA built on 102138-9 PWB. Used only in export models. Includes bootstrap update. Use 127451-4 as service replacement.

#### 127451-4

Special service replacement PWA. Used as replacement for all PWAs. Comes with other assortment of parts which may need to be replaced in the amplifier depending on version of original main PWA. (refer to instruction sheet shipped with PWA).

#### 127353-1

Main PWA built on 102138-9 PWB. Added 0.775V sensitivity. Use 127451-4 as service replacement.

#### 127353-2

Main PWA built on 102138-9 PWB. Includes bootstrap update. Use 127451-4 as service replacement.

#### 7.2.2 Input PWA:

#### 102689

Original input PWA built on 102688 PWB. Included sensitivity switch.

#### 126883

Input PWA built on 127004 PWB. Used with main PWAs starting with 102139-8. Sensitivity switch was removed, and moved to the main PWA. Use 127049-1 as service replacement, which is PWA 126883 with new faceplate.

### 7.2.3 Schematic Diagrams Main PWA

For main PWAs 102139-5 or 102139-6 refer to schematic 102141 F.

For main PWA 102139-8 refer to schematic 102141 J.

For main PWA 102139-9 refer to schematic 102141 L.

For main PWA 127321-1 refer to schematic 102141 M.

For main PWAs 127353-1 or 127353-2 refer to schematic  $\underline{102141\,\mathrm{M}}$ .

#### **Input Module**

For input PWA 102689 refer to schematic 102567.

For input PWA 126883 refer to schematic 127014.

#### 7.3 CE-1000A

#### 7.3.1 Main/Input PWA:

#### 127451-4

Main/input PWA built on 127450-1 PWB.



#### 7.3.2 Schematic Diagrams

#### **Main PWA**

For main PWA 127451-4 refer to schematic 127451-4.

#### 7.4 CE-2000, UT-2020, M-240, S3

#### 7.4.1 Main PWA:

#### 102140-5

Main PWA built on 102138-5 PWB. Used only in early CE-2000. Use 127452-4 as service replacement. 102140-6

Main PWA built on 102138-6 PWB. Replaced 102139-5. Use 127452-4 as service replacement.

#### 102140-8

Main PWA built on 102138-8 PWB. Replaced 102138-6. First main PWA with sensitivity switch. Use 127452-4 as service replacement.

#### 102140-9

Main PWA built on 102138-9 PWB. Added 0.775V sensitivity. Used only in export models. Use 127452-4 as service replacement.

#### 102140-11

Main PWA built on 102138-9 PWB. Used only in export models. Includes bootstrap update. Use 127452-4 as service replacement.

#### 127452-4

Special service replacement PWA. Used as replacement for all PWA. Comes with other assortment of parts which may need to be replaced in the amplifier depending on version of original main PWA. (refer to instruction sheet shipped with PWA).

#### 127354-1

Main PWA built on 102138-9 PWB. Added 0.775V sensitivity. Use 127452-4 as service replacement.

#### 127354-2

Main PWA built on 102138-9 PWB. Includes bootstrap update. Use 127452-4 as service replacement.

#### 7.4.2 Input Module:

#### 102690

Original input PWA built on 102688 PWB. Included sensitivity switch.

#### 126883

Input PWA built on 127004 PWB. Used with main PWAs starting with 102139-8. Sensitivity switch was removed, and moved to the main PWA. Use 127049-1 as service replacement, which is PWA 126883 with new faceplate.

### 7.4.3 Schematic Diagrams Main PWA

For main PWAs 102140-5 or 102140-6 refer to schematic 102141 F.

For main PWA 102140-8 refer to schematic 102142 J.

For main PWA 102140-9 refer to schematic 102142 L.

For main PWA 127354-1 or 127354-2 refer to schematic 102142 M.

#### **Input PWA**

For input PWA 102690 refer to schematic 102568.

For input PWA 126883 refer to schematic 127014.

#### 7.5 CE-2000A

#### 7.5.1 Main/Input PWA:

127452-4

Main/input PWA built on 127450-1 PWB.

#### 7.5.2 Schematic Diagrams

#### Main/Input PWA

For main/input PWA 127452-4 refer to schematic 127452-4.



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### **8 Module Parts Lists**

The following pages provide parts lists for modules used in the CE Series amplifiers, along with component maps to help locate individual parts. Schematics are located in the back of the manual.



# **102139** rev H **PWA, Main CE1000**

PWB part number 102138-6 PWA part number 102139-6 Schematic Drawing number 102141 rev F

E.C.N.	70015	F-44	ACCCC 101			T A	PPA	OVAL	<u>.\$</u>
D.C.N.	ZONS REV. DESCRIPTION		DATE	B	CHK	ME	EE	PE	
		E	NOTE 2 WAS 182130-4, NOTE 3 WAS 182139-4.					1	TS
DCN# 97 D4883	<u></u>	F	A15 WAS 2.2K. ADDED NOTES 13 & 14. ADDED ITEM 8 CABLE TIE. WP1 WAS A11378-ABSBS. WP2 WAS 183331- NBSBP, WP3 WAS A11378-CBSBS. ADDED C28 \$11.KSCREEN LEGEND TO SHT 18 COMPONENT MAP. COMMECTED C26 CPN ON SHTEET 8. MOVED ITEM 2 ON SHEET 18 COMPONENT MAP. R258 IS NOW A "BO NOT INSTALL".	12/12/97	TLM	KW			TS
DCN# 982 <b>498</b> 2		۱ ـ	NOTE 2 WAS 182136-6, NOTE 3 WAS 182138-5. RI WAS A11371-1825, R2 WAS A11371-2223, R5 WAS A11362-88711, RII WAS A11371-5141, ADDED R7.	61-00-35	KLW	TLN			79
DCN# 90D9066		н	WP1 WAS A11378-3858A. WP2 WAS A11588- 3859N. WP3 WAS A11378-3858C. #188 AND #288 WEME 192585-2.	91-16-98	TLN	Κw			K

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 182141.
- PWS PART NUMBER 192139-6.
- PWA PARY NUMBER 182139-8.
- 4. THE PWA SHALL MEET THE IPC-A-BIBL CLASS Z STANDARDS.
- S. ALL LEADS SHALL BE TRIMMED TO B.883" OR LESS.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- 7. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE GOTTOM SIDE OF THE PRINTED CIRCUIT GOARD.
- 8. REMOVE BOLDER OR PREVENT BOLDER FROM ACCUMULATING IN HOLES.
- 9. THE VENT HOLE ON TOP OF THE RELAYS KING AND KING MAIST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING DEF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMALAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 18. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP6 RESPECTFULLY.
- 11. THE FWA PART NUMBER AND DRAWING REVISION FOR THIS MODULE SHALL BE MARKED ON THE P.C. SQUARD AND SHALL DE PERMANENT.
- 12. INSTALLATION OF USES AND USES IS AS FOLLOWS:
  - 12A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42802-8
  - 128. BEND TRANSISTOR AT 98 DEG. PLAT SIDE DOWN
  - 12C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 120. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE THANSISTOR AND HEATSINK. THE MIXTURE MART FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. INOTE: NO VISIBLE AIR BAPE AROUND THE TRANSIETOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 12E. HOLD THE TRANSISTOR AGAINST THE HEATSING UNTIL EPOXY SETS-UP
- 13. TORQUE 8-32 HER NUTS (CPN A11988-1) AS FOLLOWS:
  13A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  13B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
  TEMPERATURE TORQUE OF 13-15 INCH LGS.
  14. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP



#### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PAIN	TS TO	1718 WEST		VN II			TANF		L. PHQVE	IN(	]. 894-8800
K		PW	Α,	MAI	N	כ	CE 10		×	LESS SM X.XX = .XXX = ILLS = :	± 8:010
		DRAWN	TUM	89-89-87	A	PPRO	VED BY:	DO NO	T SCA	LE PAI	INT
		CHECKED	KW	49-09-97	*			SUPERSED			EV.G
		SCALE	-	NONE	€E	PW	09-09-97	E.C. DC	NE 98:	D9866	
		PAOJ #	MI	)396D0	PE	TS	89-89-97	DWG. NO.		EHEET	, NEV
		FILENAME	: 10713	9-5H81. PCB	NE)	(T A	SM:	10213	39		<u> </u>

	PARTS LIS	T	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
101016-1	LBL. BARCODE	1	2
101031-1	0.250 FASTON, AUTO INSERTABL	2	WP4, WP5
101571-1	HDR. 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR. 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK. 6P4 COND MODULAR R/A	1	JS
102138-6	PWB, CE1000/CE2000 MAIN		1
102438-101K2	100PF 200V NPO 0805 T/R	- 6	C104.C120.C135.C204.C220.
			C235
02438-221K2	220PF 200V 10% NPO 0805 T/R	2	C111,C211
102438-560K2	56PF 200V 10% NPO T/R	2	C196.C296
102438-820K2	02PF 200V 10% NPO 0805 T/R		C108, C208, C138, C238
102465-1	.47UF 58V 28% RADIAL T/R	2	C101,C201
182466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22UF 25V 20% RADIAL T/R	2	C193.C293
102460-1	47UF 18V 28% NP RAD T/R		C113.C114.C213.C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102472-3	12POS . 100CTR ASSY SGL ROW		J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J190.J200
102476-1	LED. SMT R/A GREEN	3	E1.E101,E201
102477-1	LED, SMT R/A RED	4	E100.E102.E200.E202
102478~1	TRIAC DRIVER, SBS BY THRESH	2	0132,0232
102479-1	PWR NPN DARLINGTON 100V 2A	2	01.02
102480-1	MM8F4856LT1 FET 25V SQT-23		0133.0233
102481-1	NPN 25V LOW NOISE SOT-23	_	0168.0288
102483-1	PNP 300V 500MA SOT-23	2	0103.0203
102486-1	OPTO BUT NPN SOIC-8 CTR-180%	1	นว
102488-1	SPDT HORIZ SLIDE	1	5100
102569-1	HS ASM, TI ISOLATED CHI	1	HS3
192570-1	HS ASM. T1 ISOLATED CH2	1	HS4
102571-1	HS ASM, TI NON-ISOLATED CHI.	1	HS1
102572-1	HS ASM, TI NON-ISOLATED CH2.	1	H52
102595-2	SK LIN 21 DETENT 12MM HORIZ	2	R180.R200
102608-1	SPACER, 6X.187 LONG AL	a	HW1, HWZ, HW3, HW4, HW5, HW6,
, , , ,			HW7.HW8
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0,47UF 50V Z5U 1210 T/R		C121, C124, C221, C224
103192-1	SOT-223 NPN 300V 500MA 50MHZ	4	0107.0110.0207.0210
103193-1	SOT-223 PNP 300V 500MA 50MHZ		0105.0120.0205.0220
103199-1	0.4 DHM 1W 5% 2512 T/R		R152.R153,R156.R157.R159.
			R167, R168, R171, R172, R252,
		· · · · · · · · · · · · · · · · · · ·	R253.R256.R257.R259.R267.
	· · · · · · · · · · · · · · · · · · ·		R267, R268, R271, R272, R300.
· ·			R301,R302.R305.R306.R307.
·			R308, R311, R312, R400, R401.
	· · · · · · · · · · · · · · · · · · ·	<del></del>	R492,R405.R406.R407.R408.
	· · · · · · · · · · · · · · · · · · ·		R411,R412
103210-1	2.2UF 160V RADIAL T/R	1	
103331-N050R	WIRE, 14 BLK/WHT 3/16X5.0XT	1	WP2
125106-1	MACSD 8 AMP 400V TRIAC	2	0131.0231
	CAP625ID X 1" VINYL		3
1 25242-1 1 25478-1	3.83KOHM 0.5W 1% 2010 T/R	<del>'</del>	R142.R242
	NACTIVE		1 11 12 11 12 7 2

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DRAWN TLM 92-98-97 DWG. NO.
FROJ. MD398DR 1 2 1 3 9

SHEET 2 CONT. ON SHEET 3

(219) 294-1688



	PARTS LIS	T	
C.P.N.	DESCRIPTION		REFERENCE DESIGNATION
125482-1	ADHESIVE LOCTITE 384 OUTPUT	Ø	5
125483-1	ACTIVATOR LOCTITE "DUTPUT"	2	5
125508-1	18UF 50V 20% SMT AL ELEC T/R		СЗ
A10020-7	6-32 X .625 PC8 CAPTIVE STUD	a	HW10, HW11, HW12, HW13, HW14.
			HW15.HW16.HW9
A10266-2R74	2.7 OHM 2W 5% CF T/R	1	R158
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17.HW18.HW19.HW20.HW21.
····			HW22, HW23, HW24
A11358-10011	1.KOHM .1W 1% CHIP 0805	4	R106.R118.R206.R210
A11368-10021	10K 1/10W 1% 5MD 0805 T/R		R101.R104.R107.R108.R:11.
ATTOOC TOOL!	10K 17 18W 17K SWD 0003 17W		R176.R177,R182.R185.
<del></del>			R193.R201,R204.R211.R276.
			· · · · · · · · · · · · · · · · · · ·
			R277,R282,R285,R293,R313.
444000 45004	400 1000 400 400 400 400		R316.R413.R416.R9.R27
ALIBER-INNBI	100.KOHM .1W 1% CHIP 0805	13	R123.R125.R179.R289.
			R103.R106.R109.R223.
			R225.R25.R279.R283.R286.
	12.1KOHM . 1W 1% 0805 T/R	1	R21
	137 OHM . 25W 1% 1210 T/R	2	R139.R238
<u> </u>	158KOHM .1W 1% 8885 T/R	- 6	R122.R124.R222.R224.R187.
			R188,R287.R288
A11368-19122	19.1 KOHM .125W 1% CHIP RES	4	R112.R109.R212.R209
A11368-20023	20.0KOHM . 25W 1% 1210 T/R	3	R19.R184.R284
A11368-22601	226 OHM 0.1W 1% 0905 T/R	4	R116,R216,R191,R291
A11368-39231	392 KOHM .1W 1% 0805 T/R	Ð	R126.R180.R22.R226.R280.R23
			R102,R202
A11368-49901	499 OHM .1W 1% 0805 T/R	4	R103.R203,R137,R237
A11368-51111	5.11KOHM .1W 1% 0805 T/R	6	A113, A213, R175, A275, R315,
			R415
A11368-57621	57.6K, 0.10W, 1%, CF	4	R198. R290, R20. R24
A11368-68121	68.1KOHM Ø.1W 1% CHIP 0805	3	R12, R115, R215
A11368-82511	8.25KOHM .1W 1% CHIP 0805	5	R5, R18, R114, R214, R17
A11368-88711	8.87KOHM .1W 1% CHIP 0805	1	R6
A11368-90921	90.9K, 0.10W 1% MF 0805	4	R120.R220.R178.R278.
A11369-102J2	1	Ž	
	27PF 50V 10% NPO 0805 T/R	2	
A11369-471K2	<del></del>	2	C118.C218
A11371-0R02	0. DHM .125W 5% CHIP RES T/R		R323.R423
			<del> </del>
A11371-0R21	.20HM .1W 5% 0805 T/R	2	R(4,R15
A11371-1011	100 DHM .1W 5% 0805 T/R	3	R13.R147.R247
<u> </u>	1.KOHM .125W 5% CHIP RES T/R	1	R8
	120 D <u>HM</u> .25W 5% 1210 T/R	6	R138,R144,R145,R238,R244,R24
A11371-1213			R146.R161.R246.R261
A11371-1331	13KOHM . 1W 5% 0805 T/R	4	······································
A11371-1331 A11371-1501	15 DHM . 1W 5% 0805 T/R	2	F160.R260
A11371-1331	15 DHM .1W 5% 0805 T/R 180 CHM .1W 5% 0805 T/R	_	······································
A11371-1331 A11371-1501	15 DHM . 1W 5% 0805 T/R	2	F160.R260
A11371-1331 A11371-1501 A11371-1811	15 DHM .1W 5% 0805 T/R 180 CHM .1W 5% 0805 T/R	2	R160.R260 R148.R163.R248.R263
A11371-1331 A11371-1501 A11371-1811 A11371-2223	15 OHM .1W 5% 0805 T/R 180 OHM .1W 5% 0805 T/R 2.2K 0.25W 5% 1210 T/R	2 4 2	R160.R260 R148.R163.R248.R263 R132.R232
A11371-1331 A11371-1501 A11371-1611 A11371-2223 A11371-2225	15 OHM .1W 5% 0805 T/R 180 OHM .1W 5% 0805 T/R 2.2K 0.25W 5% 1210 T/R 2.2K OHM 1W 5% 2512 T/R	2 4 2 3	R160.R260 R148.R163.R248.R263 R132.R232 R1.R2.R7

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1718 WEST	MISHAWA	KA ROAD 1	ELKHART, INDIANA 46617
DRAWN	TLM	09-99-97	DMG. NO.
PROJ.	MED	390D <b>0</b>	1102139

PHONE (219) 284-8888

SHEET 3 REV
CONT. ON CHEET 4

	PARTS LIS	Τ	
C.P.N.	DESCRIPTION		REFERENCE DESIGNATION
A11371~3341	330 KOHM .1W 5% 0805 T/R	7	
			R414
A11371-3923	3.9K .25W 5% 1210 T/R	Э	R16,R135,R235
A11371-3934	39K .5W 5% 2010 SMT T/R	4	R317, R318, R417, R418
A11371~4701	RES. 47 DHM .1W 5% CHIP 0805	2	R162.R262
A11371-4751	4.7MEGOHM. 9.10W 5% MF 9805	5	R29.R174.R192.R274.R292
A11371-5R63	5.5 OHM . 25W 5% 1210 T/R	4	R150.R165.R250.R265
A11371-5R65	5.6 OHM 1W 5% 2512 T/R	2	R420.R421
A11371-6814	680 OHM .5W 5% 2010 T/R	6	R105,R128,R181,R205,R228,
			R281
A11371-6821	6. BKOHM . 1W 5% CHIP 0605	2	R127.R227
A11371-7511	750 CHM .1W 5% 0805 T/R	3	R2B. R133. R233
A11371-8201	82 DHM .1W 5% 0805 T/R	4	R194.R294.R136.R236
A11371-8211	820 CHM .1W 5% 0805 T/R	6	R195,R295,R129,R141,R229.
			R241
A11378-A050U	WIRE, 16 RED 3/15" X 5 X FAS	1	WP1
A113 <u>79-C</u> 050U	WIRE, 16 BLU 3/16" X 5 X FLA	1	WP3
A11427-103K2	.01 UF 50V 10% X7R MLC 0605	6	C102.C109.C115.C202.C209.C215
A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X	28	C12.C139.C122.C126.C127.
			C128.C129.C130.C131.C132.
			C133.C239.C222.C226.C227.
<u></u>			C228,C229,C230,C231,C232,
			C233.C24.C25.C6.C7.C2.C28.C29
A11427-123K2		2	C112.C212
A11427-272K2		2	C117.C217
A11427-472K2	4700PF 50V 10% X7R 0805 T/R	4	C115,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	RECTIFIER, 1N4004 SILICON T/	7	D1, D10, D2, D3, D4, D6, D7
C 3510-2	CHOKE. 10% AXIAL 470 UH TR	4	L100,L101,L200,L201
C 3549-0	DIODE, ZENER 10V 1N5240B T/R	1	D8
C 4477-3	470 UF 35V VERT	2	C4, C5
C 5095-2	MC7815CT +15V. REG		UI
C 5096-0	MC7915CT -15V. REG	1	U2 C27
C 5362-6	2.2UF 50V VERT ELECT T/A	1	
C 7091-9 C 7448-1	.33 UF 50V Z5U CHIP CAP MMBT3904 CHIP NPN		C22,C140,C240 Q100,Q101,Q129,Q200,Q201.
L /440-1	MMD13987 CHIF NEN		0229
C 7816-9	VARTER WILERS ORTO-CELL		U100.U200
	B" CABLE TIE RED		
C 7947-Z		1	111.05 112.05 84 115
C 8262-5	MC33078D LOW NOISE DUAL OP A	4	U105.U205.U4.U5 C118.C218
C 8426-6 C 8576-8	.1UF 250V 10% MET POLY RADIA 100UF 35V 10% ALUM ELECT T/A	2	C26
C 9012-3	OP AMP, QUAD LO NOISE MC3307	2	U101,U201
C 9030-8	COMPARATOR, OLAU CAUD COTARAGMOD	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
W 313/70	ZN3904 40V NPN TRANSISTOR T/		
C 0252-5	THESET FOR INCH THANSISIUM  /	2	Q184.Q284
C 9252-5	DIODE 18014/184149 ECT-22 C	E A	l ከነወነ ከ107 ከ103 ከ104 ከ106
C 9252-5 C 9283-0	DIODE, 1N914/1N4148 50T-23 S	54	D101,D102,D103,D104,D105.
	DIODE, 1N914/1N4148 50T-23 S	54	D101.D102.D103.D104.D105. D106.D107.D108.D109.D110.

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#### INC. CROWN INTERNATIONAL ELKHART, INDIANA 48517

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TLM 99-89-87 DWG. NO.
MD398D8 1 2 1 DRAWN PROJ.

718 WEST MISHAWAKA ROAD

(219) 294-0088 HEST 4 REV SHEET 4 CONT. ON SHEET 5



	PARTS LIS	T	
E.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
			D111.D112.D113.D116.D117.
			D118.D119.D120.D121.D122.
			D123, D124, D125, D13, D281.
		1	D202, D203, D204, D205, D206.
			D207. D208. D209. D218. D211.
			D212.D213.D216.D217.D218.
			D221.D222.D223.D224.D225.
<del>-</del>			D9.D126.D127.D128.D129.
			D226, D227, D228, D229.
C 9896-9	TEST POINT PCB .1" CTR LOOP	2	· · · · · · · · · · · · · · · · · · ·
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102.0111.0202.0211.0109.
		<del> </del>	0209
C10208-4	100 UF 25V 20% RAD ELECT T/R	2	C105,C205
C10335-5	RELAY 30A 24V T90 SEALED CE	2	K100,K200
C10422-1	DIODE. 3A 400V IN5404 AXIAL	4	D114.D115.D214.D215
C10613-5	1 KOHM TOP ADJUST TRIMMER T/	2	R134.R234
D 8917-3	6200UF 110VDC ELECTROLYTIC	2	
H42902-9	ASM. THERMAL SENSE	+	U106.U206
5 5700-0	732 RTV RUBBER 18.3 OZ CLEAR	-	4
3 37 00 0	702 THE HOUSER TO G OF EFFAN	<del>                                     </del>	
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### CROWN INTERNATIONAL INC. (218) 254-8968 HEET 5 REV ONT. ON HEET 6

SHEET S CONT. ON SHEET 6

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1718 WEST			ELKHART, INDIANA 46517	PHONE
<b>PWARD</b>	TLM	09-09-97	DWG. NO.	S
PROJ.	MD	39#D#	1102139	5

-	<del> </del>	PARTS LIST	· *
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1	102138-6	PWB. CE1000/CE2000 MAIN	
2	101016-1	LBL, BARCODE, , ,	
3	125242-1	CAP625ID X 1" VINYL	
C1	102465-1	10UF 250V 20% RADIAL T/R	J 1 *
C2		.1UF 50V CHIP CAP 10% 0805 X7R	F 10 *
C3	125508-1	10UF 50V 20% SMT AL ELEC T/R	I 8
C4	C 4477-3	470 UF 35V VERT	G 10
C5	C 4477-3	470 UF 35V VERT	G 10
C6		.1UF 50V CHIP CAP 10% 0805 X7R	H 10 *
C7		.1UF 50V CHIP CAP 10% 0805 X7R	H 10 *
C12		.1UF 50V CHIP CAP 10% 0805 X7R	I 9 *
C20	D 8917-3	B200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	A 9
C22	C 7091-9	0.33 UF 50V Z5U CHIP CAP	N 9 *
C24		.1UF 50V CHIP CAP 10% 0805 X7R	N 10 *
C25	A11427-104K2		0.8 *
C26	C 8578-8	180UF 35V 18% ALUM ELECT T/A	1 8
C27	C 5362-6	2.2UF 50V VERT ELECT T/A	H 18
C28		.1UF 50V CHIP CAP 10% 0805 X7R	J 9 *
C29		.1UF 50V CHIP CAP 10% 0805 X7R	I 8 *
C101	102465-1	0.47UF 50V 20% RADIAL T/R	м 9
C102		.01 UF 50V 10% X78 MLC 0805	M 9 *
C103	102467-1	22UF 25V 20% RADIAL T/R	<del>Т м э</del>
C104		100PF, 200V 0805	M S *
C1 05	C10208-4	180.UF 25V 20% RAD ELECT T/R	L 9
C186		56PF 200V 10% NPO 0805 T/R	L. 9 *
C107		27PF 50V 10% NPO 0805 T/R	L 9 *
C108		82PF 200V 10% NPO 0805 T/R	L 10 *
C109		.01 UF 50V 10% X7R MLC 0805	H 6 *
C110		470PF 50V 10% NPO 0805 T/R	M 7 *
C111		220PF 200V 10% NPD 0805 T/R	N 8 *
C112		.012 50V 10% X7R 0805 T/R	D 8 *
C113	102458-1	47UF 10V 20% NF RAD T/R	N 8
	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114 C115	· -		N 8 ×
C116		.01 LIF 50V 10% X7R MLC 0805 4700PF 50V 10% X7R 0805 T/R	N 7 *
C117		2700PF 50V 10% X7R 0805 1/R	<del></del>
C118		.1UF Z50V 10% MET POLY RADIAL	I B *
C119		4700PF 50V 10% MET POLT HADIAL	1 8 *
		190PF 200V NPO 8885 T/R	1 7 *
C120 C121	103191-1	0.47 UF 50V Z5U 1210 T/R	68*
C122	,	.1UF 50V CHIP CAP 10% 0805 X7R	F 8 *
C123		100UF 16V 20% NP ELEC RAD T/R	G g
C124	103191-1	· · · · · · · · · · · · · · · · · · ·	F 8 *
		0.47UF 50V Z5U 1210 T/R	
C125		.1UF 50V CHIP CAP 10% 0805 X7R	N 10 *
C127		.1UF 50V CHIP CAP 10% 0805 X7R	м 9 *
C128		.1UF 50V CHIP CAP 10% 0805 X7R	M 10 *
C128		.1UF 50V CHIP CAP 10% 0805 X7R	м 9 *
D130	A11427-184K2	.1UF 50V CHIP CAP 10% 0805 X7R	H 8 *

CROWN INTERNATIONAL INC. 718 WEST MISHAWAKA ROAD

NAL 1140.

PHONE (219) 294-8888

SHEET 6

CONT. ON H ELKHAMY. INDIANA 48517

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TLM 89-89-97 DMG. NO. MD398D9 1 2 2 DRAWN 39 PROJ.

SHEET 6 CONT, ON SHEET 7



	T=	PARTS LIST	T
	C.P.N.	DESCRIPTION	MAP LOC.
C131		.1UF 50V CHIP CAP 10% 0805 X7R	<u> </u>
C132		.1UF 50V CHIP CAP 10% 0805 X7R	F 7 *
2133		.1UF 50V CHIP CAP 10% 0805 X7R	. B *
2134		.001UF 50V 5% NPO MLC 0805 T/R	M 7 *
C135		100PF 200V NPO 0805 T/R	N.7 *
C136	103210-1	2.2UF 160V RADIAL T/R	1 7
C137	103210-1	2. ZUF 160V RADIAL T/R	I 7
C138	1	82PF 200V 10% NPO 0605 T/R	M 7 *
C139	<del>•                                      </del>	.1UF 50V CHIP CAP 10% 0805 X7R	N B *
C148	C 7091-9	.33 UF 50V ZSU CHIP CAP	L 9
C201	102465-1	0.47UF 50V 20% RADIAL T/R	J 9
CZ02		.01 UF 50V 10% X7R MLC 0805	K 9 *
C203	102467-1	22UF 25V 20% RADIAL T/R	K S
C204	<del></del>	100PF 200V NPO 0805 T/R	J 9 *
C205	C10208-4	100.UF 25V 20% RAD ELECT T/R	J 9
C206		56PF 200V 10% NPO 0805 T/R	J 9 *
C207		27PF 50V 10% NPO 0805 T/R	J 9 *
C208	- <del></del>	82PF 200V 10% NPO 0805 T/R	J 10
C209	<del>-</del>	.01 UF 50V 10% X7R MLC 0805	H 3 *
C210		470PF 50V 10% NPO 0805 T/R	K 7 *
C211	102438-221K2	220PF 200V 10% NPO 0805 T/R	K B *
C212	A11427-123K2	-012 50V 10% X7H 0805 T/R	L 8 *
C213	102468-1	47UF 10V 20% NP RAD T/R	K B
C214	102468-1	47UF 10V 20% NP RAD T/R	KB
C215		.01 UF 50V 10% X7R MLC 0805	K 8 *
C215	A11427-472K2	4700PF 50V 10% X7R 0805 T/R	J 2 *
C217	A11427-272K2	2700PF 50V 10% X7R 0805 T/R	D 1 *
C218	C 6426-6	.1UF 250V 10% MET POLY RADIAL	<u>I</u> 1
C215	A11427-472K2	470@PF 50V 10% X7R 0805 T/R	E 1 *
C220	102438-101K2	100PF 200V NPO 0805 T/R	D 2 *
C221	103191-1	0.47 UF 50V Z5U 1210 T/R	E 8 *
C222	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	€8 *
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	103191-1	0.47UF 50V Z5U 1210 T/R	j 9 *
C226	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	L 10 1
CZ27	A11427-104K2	.1UF 50V CHIP CAP 10% 0905 X7R	K S *
C228	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X78	J 12 1
C229		.1UF 50V CHIP CAP 10% 0005 X7R	J 8 *
C23Ø		.1UF 50V CHIP CAP 10% 0805 X7R	E 8 *
C231		.1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
C232		1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
233		.1UF 50V CHIP CAP 10% 0805 X7R	DB*
C2 <b>34</b>		.001UF 50V 5% NPO MLC 0005 T/R	J 7 *
235	102438-101K2	100PF 200V NPO 0805 T/R	J 2 *
2236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
0238	******	82PF 200V 10% NPO 0805 T/R	17*
2239		.1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
240	C 7091-9	.33 UF 50V ZSU CHIP CAP	J 9
D1		RECTIFIER, 1N4004 SILICON T/R	G 10

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DRAWN	TLM	89-89-97	DWG. NO.	SHEE	7 0N	REV
PROJ.	MD	39 <b>0</b> 0\$	<u> </u>	SHEE	8	<u> </u>

BEE DE	S C.P.N.	DESCRIPTION	MAP LOC
D2	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	
D3	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	G 18 G 18
D4	C 2851-1	RECTIFIER, IN4804 SILICON T/R	G 10
D6	C 2851-1	RECTIFIER, IN4004 SILICON T/R	J 8
D7	C 2851-1	RECTIFIER. 1N4004 SILICON T/A	J B
D8	C 3549-0		
D9	C 9283-0	DIODE, ZENER 10V 1N5240B T/R	I 9 *
D10		DIODE, 1N914/1N4148 SOT-23 SMT	
	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	I 10
D13	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9 *
D101	C 9283-0	DIODE, INSIA/IN4148 SOT-23 SMT	N 9 *
D102	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	M 9 *
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9 *
D104	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	L9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10 *
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8 *
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8 *
D108	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	NB*
D109	£ 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	NB*
D110	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B *
D111	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8 *
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B *
D113	C 9293-0	DIODE, 1N914/1N4148 SOT-23 SMT	N8 *
D114	C10422-1	DIODE, 3A 400V IN5404 AXIAL	<u> </u>
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G B *
D117	C 9283-0_	DIODE, 1N914/1N4148 SOT-23 SMT	M 10 *
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 103 *
D115	C 9283~0	DIODE, 1N914/1N4148 SOT-23 SMT	<u> 19*</u>
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-29 SMT	19*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9 *
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10 *
D123	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9 *
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7 *
D1 25	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7 *
D126	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 7
D127	C 9283-0	DIGDE, 1N914/1N4148 SCT-23 SMT	N 7
D12B	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	Н7 *
D1 29	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7 *
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9 *
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9 *
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT_	J 9 *
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9 *
D205	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 10 *
D236	C 9283-0	DIQDE. 1N914/1N4148 SQT-23 SMT	K B *
D207	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8 *
D200	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	K 8 *
D2Ø9	€ 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8 *
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К В *
D211	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	к ө *
D212	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 8 *
D213	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L B *

1718 WEST MISHAWAKA ROAD

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DRAWN TLM 89-89-97 DWG. NO. SHEET 8 CONT. ON SHEET 9

ELXHART. INDIANA 48517

(219) 294-868E

REV

REF DES	C.P.N.	DESCRIPTION PARTS LIST	MAP LOC.
D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I Z
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8 *
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10 *
D218	C 9283~0	DIODE, 1N914/1N4148 50T-23 SMT	L 10 *
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9 *
D222	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	K 10 *
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9 *
D224	C 9283-0	DIQDE, 1N914/1N4148 50T-23 SMT	E 7 *
D225	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	<u> </u>
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D228	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 7 *
D229	C 9293-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	F 7 *
£1	102476-1	LED. SMT R/A GREEN	I 1
E182	102477-1	LED. SMT R/A RED	J 1
E181	102476-1	LED. SMT R/A GREEN	<del>- j j</del>
E182	102477-1	LED. SMT R/A RED	K i
E280	102477-1	LED. SMT R/A RED	M 1
E201	102476-1	LED. SMT R/A GREEN	<u> </u>
E202	102477-1	LED. SMT R/A RED	M 1
HS 1	102571-1	HS ASM. TI NON-ISOLATED CHI.	L 6
HS2	102572-1	HS ASM, TI NON-ISOLATED CH2,	L 3
HS3	102569-1	HS ASM, TI ISOLATED CHI	G 6
HS4	102570-1	HS ASM, T1 ISOLATED CH2,	G 3
HW1	102508-1	SPACER, 6 X 0.187 LONG, AL	N 6
HW2	102508-1	SPACER, 8 X 2.187 LONG, AL	J 5
HW3	102608-1	SPACER, 5 X 8.187 LONG, AL	N 3
HW4	102608-1	SPACER, 6 X 0.187 LONG, AL	<del>) 3</del>
HW5	102600-1	SPACER, 6 X 8.187 LONG, AL	1 6
HW6	102608-1	SPACER, 5 X 0.187 LONG, AL	D 5
HW7	102608-1	SPACER, S X 0.187 LONG, AL	13
HWB	102508-1	SPACER, 6 X 0.187 LONG, AL	1 - 1 3 D 3
HW9	A10020-7	6-32 X Ø.625 PCB CAPTIVE STUD	N B
HW10	A18828-7	6-32 X 0.625 PCB CAPTIVE STUD	J 5
	A18828-7	6-32 X Ø.625 PCB CAPTIVE STUD	N 3
HW1 1		and the second s	
HW1 2	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	J 3
HW13	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	I 6
HW1 4	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	D 5
HW15	A10020-7	6-32 X Ø.625 PCB CAPTIVE STUD	1 3
HW1 6	A10020-7	6-32 X 9.625 PCB CAPTIVE STUD	D 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	J 5
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	<del></del>
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	N 3
HW2Ø	A11956-1	6-32 HEX NUT W/BELLEVILLE	13
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	1 6
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	D 5
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	I 3
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	D 3
12	101573-1	HDR. 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	12POS 100CTR ASSY SGL ROW	M B

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1718 WEST	MISHAWA	KA ROAD	ELKHART, INDIANA 46517	PHONE (219) 294-8888
DRAWN	TLM	99-99-97	DWG. NO.	SHEET 9 REV
PROJ.	MÐ	390D0	<u> 1102139</u>	CONT. ON H

ore week	C D N	PARTS LIST	
REF DES	-	DESCRIPTION	MAP LOC.
<u> </u>	101571-1	HDR. 2POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	N 10
J <u>100</u>	102473-1	SPEAKON. 4 POLE PCB HORZ	D 18
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
K100	C10335-5	RELAY 30A 24V T90 SEALED CE	<u> </u>
K200	C10335-5	RELAY 30A 24V T90 SEALED CE	E 8
L100	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	N 7
L101	C 3510-2	CHOKE. 10% AXIAL 470 UH TR	17
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H B
L200	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	J 1
L201	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
01	102479-1	PWR NPN DARLINGTON 100V ZA	H 10
02	102479-1	PWR NPN DARLINGTON 100V 2A	I 10
0100	C 7449-1	MMBT3984 CHIP NPN	M 9 *
0101	C 7448-1	MMBT3904 CHIP NPN	<u>* e M</u>
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9 *
0103	102483-1	PNP 300V 500MA SOT-23	L 10 *
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR T/A	16
0185	103193-1	SOT-223 PNP 388V 588MA 58MHZ	# B M
0107	103192-1	SOT-223 NPN 300V 500MA 50MHZ	* B M
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8 *
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B *
0118	103192-1	SOT-223 NPN 380V 500MA 50MHZ	N 7 *
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT~23	N 7 *
0112		INSTALLED ON THE PREVIOUS ASSEMBLY	N 7
0114		INSTALLED ON THE PREVIOUS ASSEMBLY	3 6
Q115		INSTALLED ON THE PREVIOUS ASSEMBLY	K 5
Q116		OMITTED FOR THIS ASSEMBLY	L 6
D117		OMITTED FOR THIS ASSEMBLY	L 5
0118		INSTALLED ON THE PREVIOUS ASSEMBLY	м 6
Q119		INSTALLED ON THE PREVIOUS ASSEMBLY	N 5
0120	103193-1	SOT-223 PNP 300V 500MA 50MHZ	17*
Q121		INSTALLED ON THE PREVIOUS ASSEMBLY	1 7
0123		INSTALLED ON THE PREVIOUS ASSEMBLY	E 6
0124		INSTALLED ON THE PREVIOUS ASSEMBLY	E 5
0125		DMITTED FOR THIS ASSEMBLY	F 5
0126		OMITTED FOR THIS ASSEMBLY	G 5
D127		INSTALLED ON THE PREVIOUS ASSEMBLY	Н 6
0128		INSTALLED ON THE PREVIOUS ASSEMBLY	H 5
0129	C 744B-1	MMBT3904 CHIP NPN	69*
0131	125196-1	MACSD 8 AMP 400V TRIAC	F 9
<b>0132</b>	102478-1	TRIAC DRIVER. SBS BV THRESH	G 8
Q133	102480-1	MMBF4856LT1 FET 25V SOT-23	M 9 *
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Document Has Been Replaced with a Newer Version with a Newer Version of the second with a Newer Version of the second with a Newer Version of the second of

TLM 99-99-97 DWG. NO. MD396D6 1 2 DRAWN PROJ.

(219) 254-8886 HEET 10 REV SHEET 18 CONT. ON SHEET 11

0201	C 7448-1 C 7448-1 C 9931-4 102483-1 C 9252-5 103193-1 103192-1 102481-1 C 9931-4	DESCRIPTION  MM8T3904 CHIP NPN  MM8T3904 CHIP NPN  MM8T5087LT1 PNP X5ISTOR SQT-23  PNP 300V 500MA 50T-23  2N3904 40V NPN TRANSISTOR T/A  SQT-223 PNP 300V 500MA 50MHZ  SQT-223 NPN 300V 500MA 50MHZ  NPN 25V LQW NQISE SQT-23	MAP LOC.  K 9 *  K 9 *  L 9 *  J 10 *  I 3  J 8 *
0201	C 7448-1 C 9931-4 102483-1 C 9252-5 103193-1 103192-1 102481-1 C 9931-4	MM8T3904 CHIP NPN MM8T5087LT1 PNP X5ISTOR SOT-23 PNP 300V 500MA 50T-23 2N3904 40V NPN TRANSISTOR T/A SOT-223 PNP 300V 500MA 50MHZ SOT-223 NPN 300V 500MA 50MHZ	7 10 * F 3 *
0202 0 0203 1 0204 0 0205 1 0207 1 0208 1 0209 0	C 9931-4 102483-1 C 9252-5 103193-1 103192-1 102481-1 C 9931-4	MMBT5087LT1 PNP X5ISTOR SOT-23 PNP 300V 500MA SOT-23 2N3904 40V NPN TRANSISTOR T/A SOT-223 PNP 300V 500MA 50MHZ SOT-223 NPN 300V 500MA 50MHZ	<u>L9*</u> J10* I3
0203 1 0204 0 0205 1 0207 1 0208 1 0209 0	102483-1 C 9252-5 103193-1 103192-1 102481-1 C 9931-4	PNP 300V 500MA 50T-23 2N3904 40V NPN TRANSISTOR T/A S0T-223 PNP 300V 500MA 50MHZ S0T-223 NPN 300V 500MA 50MHZ	I 3
0204 0 0205 1 0207 1 0208 1 0208 0 0210 1	C 9252-5 103193-1 103192-1 102481-1 C 9931-4	2N3904 40V NPN TRANSISTOR T/A SOT-223 PNP 300V 500MA 50MHZ SOT-223 NPN 300V 500MA 50MHZ	I 3
0205 1 0207 1 0208 1 0209 0	103193-1 103192-1 102481-1 C 9931-4	SOT-223 PNP 300V 500MA 50MHZ SOT-223 NPN 300V 500MA 50MHZ	·
Q207 1 Q208 1 Q209 ( Q210 1	103192-1 102481-1 C 9931-4	SOT-223 NPN 300V 500MA 50MHZ	
0208 1 0209 0	102481-1 C 9931-4		
0209 ( 0210 1	C 9931-4	NPN 25V LOW NOISE SOT-23	K 8 *
0210 1			K B *
	103107-1	MMBT5087LT1 PNP XSISTOR 50T-23	K 8 M
	103192-1	SOT-223 NPN 300V 500MA 50MHZ	J 2 *
0211 [0	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2 *
0212		INSTALLED ON THE PREVIOUS ASSEMBLY	J 2
0214		INSTALLED ON THE PREVIOUS ASSEMBLY	J 3
Q215	<u>.                                </u>	INSTALLED ON THE PREVIOUS ASSEMBLY	K 3
0216		OMITTED FOR THIS ASSEMBLY	L 3
0217		OMITTED FOR THIS ASSEMBLY	L 3
0218		INSTALLED ON THE PREVIOUS ASSEMBLY	м з
0219		INSTALLED ON THE PREVIOUS ASSEMBLY	N 3
0220 1	103193-1	SOT-223 PNP 300V 500MA 50MHZ	D 2 *
0221		INSTALLED ON THE PREVIOUS ASSEMBLY	D 2
0223		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
G224		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
0225		OMITTED FOR THIS ASSEMBLY	F 3
0226		OMITTED FOR THIS ASSEMBLY	G 3
0227		INSTALLED ON THE PREVIOUS ASSEMBLY	Н 3
0228		INSTALLED ON THE PREVIOUS ASSEMBLY	н 3
	E 7448-1	MMBT3904 CHIP NPN	E 9 *
	125106-1	MACOD B AMP 400V TRIAC	€ 9
0232 1	102478~1	TRIAC DRIVER, SBS BV THRESH	F B
Q233 1	102480-1	MMBF4856LT1 FET 25V 50T-23	# E L
R1 /	A11371-2225	2.2K OHM 1W 5% 2512 T/R	J 8 ★
R2 /	A11371-2225	2.2K DHM 1W 5% 2512 T/R	J 8 *
R3 /	A11371-3341	330 KDHM .1W 5% 0805 T/R	* 8 1
R4 /	A11371-3313	330 DHM . 25W 5% 1210 T/R	<u>I : *</u>
R5 /	A11368-82511	8.25K OHM 0.1W 1% CHIP 0805	D8 *
R6 /	A11368-88711	8.87KOHM .1W 1% CHIP 0805	D 8 *
R7 /	A11371-2225	2.2K DHM 1W 5% 2512 T/R	J 8 *
RÐ /	A11371-1022	1K .125W 5% CHIP RES T/R	H 9 *
R9 /	A11368-10021	10K 1/10W 1% SMD 0805 T/R	H 9 *
R10 /	A11368~20023	20_KOHM . 25W 1% 1210 T/R	. н в ж
	A11371-3341	330K OHM 0.1W 5% CHIP 0805	I 9*
		68.1KDHM 0.1W 1% CHIP 0805	19*
	<del></del>	100 OHM .1W 5% 0805 T/R	I 10 *
	A11371-0R21	.20HM .1W 5% 0805 T/R	I 10 *
	A11371-0R21	.20HM .1W 5% 0805 T/R	I 10 *
	A11371-3923	3.9K 0.25W 5% 1210 T/R	N 9 *
		8.25KOHM .1W 1% CHIP 0605	F 18 *
	A11368-82511		D 8 *
	A11371~3313	330 OHM . 25W 5% 1210 T/R	I 1 *

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DRAWN TLM 89-89-97 DWG. NO. PROJ. MD398D8 102139

PHONE (218) 294-8948
SHEET 11 REV
CONT. ON
SHEET 12

REF DES	C.P.N.	PARTS LIST DESCRIPTION	MAP LOC.
R20	·	57.5K, 0.10W 1% MF 0805	I 9 *
R21	-	12.1K .1W 1% 0805 T/R	1 9 *
R22	A11368-39231	392 KOHM .1W 1% Ø805 T/R	I 9 *
R23		392 KOHM .1W 1% 0805 T/R	I 9 *
R24	A11368-57621	57.6K, 0.10W 1% MF 0805	1 9 *
R25	-	100.KOHM .1W 1% CHIP 0805	N 9 *
R26	A11371-3341	330 KOHM .1W 5% 0805 T/R	A 18 *
R27_	<del></del>	10K 1/10W 1% SMD 0805 T/R	L 9 *
R28	A11371-7511	750 DHM .1W 5% 0805 T/R	L 9 *
R29	A11371-4751	4.7MEGOHM, 0.10W 5% MF 0805	19*
R100	102595-2	5K. , DETENT	L 1
R101	A11368-10021	10K 1/10W 1% SMD 0805 T/R	M 10 *
R102	<del>+</del>	392 KOHM .1W 1% CHIP 0805	N 9 *
R103		499 OHM .1W 1% 0805 T/R	ж е и
R184	A11368-19021	<del></del>	N 9 *
R105	A11371-6814	680 OHM .5W 5% 2010 T/R	
R186		1.KOHM .1W 1% CHIP 0805	* e M
R187		10K 1/10W 1% SMD 0805 T/R	L 10 *
R100		10K 1/10W 1% SMD 0805 T/R	L 10 *
R129		19.1KOHM .125W 1% CHIP RES	M 9 *
RIID		1.KDHM .1W 1% CHIP 8885	L 9 *
R111	<del>-</del>	10K 1/10W 1% SMD 0805 T/R	L 3 *
R112		19.1KOHM .125W 1% CHIP RES	LB*
R113		5.11KOHM .1W 1% 0805 T/R	L 10 *
R114	A11368-82511		L 10 *
R115	A11368-68121		L 10 *
R116	A11368-22501		м 9 *
R117	A11371-3341	330 KOHM .1W 5% 0805 T/R	M 9 *
R115	A11371~3333	33 KOHM . 25W 5% 1210 T/R	M 9 *
R120	A11368-90821		M S *
R122		158KOHM . 1W 1% 0805 T/R	N 9 *
R123		100.KOHM .1W 1% CHIP 0805	M 9 *
R124	<del></del>	158KOHM .1W 1% 0805 T/R   100.KOHM .1W 1% CHIP 0805	* e M
R125	<del></del>		* E M
R126 R127	A11371-6821	392 KOHM .1W 1% 0605 T/R 6.8KOHM .1W 5% CHIP 0805	N 9 *
R128		680 OHM .5W 5% 2018 T/A	J 1 *
R128	A11371-6814 A11371-8211	820 OHM .1W 5% 0805 T/R	N 7 *
	A113/1"0211		
R130 R131	<del>-</del> -	DO NOT INSTALL DO NOT INSTALL	08*
R132	1411271-2222		
	A11371-2223	2.2K 0.25W 5% 1210 T/R	H 6 *
R133	A11371~7511	750 OHM .1W 5% 0805 T/R 1 KOHM TOP ADJUST TRIMMER T/R	H 6 *
R134	C10613-5		M B
R135	A11371-3923	3.9K .25W 5% 1210 T/R	M 7 *
R136	A11371-8201	82 OHM . 1 W 5% 0805 T/R	M 7 *
R137		499 OHM .1W 1% 0805 T/R	N 0 *
R138	A11371-1213	120 OHM ,25W 5% 1210 T/R	N 8 *
R139	<del></del>	137 OHM .25W 1% 1210 T/R	N 8 *
R14Ø	A11371-3333	33 KOHM .25W 5% 1210 T/R	N 8 *

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TCM 89-89-97 DWG. NO.
MD399D8 1 0 2 1 3 9 DRAWN PROJ.

1718 WEST MISHAWAKA ROAD

SHEET 12 CONT. ON SHEET 13



REF DES	C.P.N.	PARTS LIST DESCRIPTION	MAP LOC.
R141	A11371-8211	820 DHM .1W 5% 0805 T/A	0.8*
R142	125478-1	3.83KOHM 0.5W 1% 2010 T/R	08 *
R143	A11371-3333	33 KOHM . 25W 5% 1210 T/R	N 8 *
R144	A11371-1213	128 DHM , 25W 5% 1210 T/R	N 8 *
R1 45	A11371-1213	120 OHM .25W 5% 1210 T/A	N 8 *
R146	A11371-1331	13KOHM .1W 5% 0805 T/R	N 7 *
R147	A11371-1011	180 OHM .1W 5% 0805 T/R	N 7 *
R148	A11371-1911	182 OHM .1W 5% 0885 T/R	M 7 *
R15Ø	A11371~5R63	5.8 DHM 25W 5% 1218 T/R	N 7 *
R152	103199-1	Ø. 4. 1W, 5%, 2512	K 7 *
R153	103199-1	0.4. 1W, 5%, 2512	K 5 *
R154		OMITTED FOR THIS ASSEMBLY	L 7 *
R155		OMITTED FOR THIS ASSEMBLY	м Б *
R156	103199-1	Ø.4, 1W, 5%, 2512	M 7 *
R157	103199-1	0.4. 1W, 5%, 2512	N 6 *
R156	A10266-2R74	2.7 OHM 2W 5% CF T/R	1 8
R159	103199-1	Ø.4. 1W. 5%. 2512	D 7 *
R160	A11371-1581	15 DHM .1W 5% 0805 T/R	I 9 *
R161	A11371-1331	13KDHM .1W 5% 0805 T/R	H 7 *
R162	A11371-4701	RES, 47 OHM .1W 5% CHIP 0805	H 7 *
R153	A11371-1811	180 CHM .1W 5% 0805 T/R	17*
R165	A11371-5R63	5.6 DHM .25W 5% 1210 T/R	15*
R167	103199-1	0.4, 1W, 5%, 2512	E 7 *
R168	103199-1	Ø. 4, 1W, 5%, 2512	F 6 *
R169	***************************************	OMITTED FOR THIS ASSEMBLY	F 7 *
F170		OMITTED FOR THIS ASSEMBLY	G 5 *
R171	103199-1	Ø.4, 1W, 5%, 2512	G 7 *
R172	103199-1	0.4. 1W, 5%, 2512	Н Б +
R174	A11371-4751	4.7MEGOHM, 8.10W 5% MF 0805	G 8 *
R175	A11368-51111	5.11KOHM .1W 1% 0805 T/R	G B *
R176	A11368-10021	10K 1/10W 1% SMD 0805 T/R	G 8 *
R177	A11368-10021		H B *
R178		98.9K. 0.10W 1% MF 0805	N 9 *
R179	A11368-10031		F 7 *
R180	A11368-39231		G 8 *
R181	A11371-5814	680 QHM ,5W 5% 2010 T/R	J 1 *
R182	A11368-10021	10K 1/10W 1% SMD 0805 T/R	F 8 *
R183		100.KOHM .1W 1% CHIP 0805	F B *
R184		20.0KOHM .25W 1% 1210 T/R	F 9 *
		10K 1/10W 1% SMD 0805 T/R	G 8 *
R185 R186		100.KOHM .1W 1% CHIP 0005	N 10 *
R187			
		158KOHM .1W 1% 0805 T/R	M 18 *
R188		158KOHM .1W 1% 0905 T/R 100.KOHM .1W 1% CHIP 0805	M 10 *
R189			
R190		57.6K, .1W, 1%, CHIP	N 6 *
R191	A11368-22601 A11371-4751		N 6 *
R192	A113/1-4/51	4.7MEGOHM. Ø.10W 5% MF Ø805	L 9 *
	<u> </u>	<del></del>	<del></del>

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#### CROWN INTERNATIONAL INC. 718 WEST MISHAWAKA ROAD ELKMART, INDIANA 46517

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TLM 89-89-97 DWG. NO. MD399D9 1 2 DRAWN PAGJ.

SHEET 13 REV CONT. ON SHEET 14 SHEET 13 CONT. ON SHEET 14



DOE BOO	C B N	PARTS LIST	[MAD : OC
REF DES		DESCRIPTION	MAP LOC.
R193	A11358-10021	10K 1/10W 1% SMD 0805 T/R	N 9 *
R194	A11371-8201	82 DHM . 1W 5% 0805 T/R	₩ 7 *
R195	A11371-8211	820 OHM .1W 5% 0805 T/R	M 7 *
R200	102595+Z	5K, . DETENT	N 1
R201		10K 1/10W 1% SMD 0805 T/R	K 18 *
R <u>202</u>		392.KOHM .1W 1% CHIP 0805	L 9 *
R203		499 DHM .1W 1% 0805 T/R	L 9 *
R204		10K 1/10W 1% SMD 0805 T/R	<u> </u>
R205	A11371-6814	680 OHM .5W 5% 2010 T/R	M 1 *
R206		1.KOHM . 1 W 1% CHIP 0805	
R209		19.1KOHM .125W 1% CHIP RES	K 9 *
R210		1.KOHM .1W 1% CHIP 0805	J 9 *
R211		10K 1/10W 1% SMD 0805 T/R	J 9 *
R212		19.1KOHM .125W 1% CHIP RES	J 9 *
R213		5.11KDHM .1W 1% 0805 T/R	J 10 *
R214		8.25KDHM .1W 1% CHIP 0805	J 10 *
R215		68.1KDHM 9.1W 1% CHIP 9895	J 18 *
R216		226 OHM 0.1W 1% 0805 T/R	K 9 *
R217	A11371-3341	330 KOHM .1W 5% 0805 T/R	19 *
R219	A11371-3333	33 KOHM .25W 5% 1210 T/R	
R220		90.9K, 0.10W 1% MF 2805	K 9 *
R222		158KOHM .1W 1% BB05 T/R	K 9 *
R223		100.KOHM .1W 1% CHIP 0005	<u> </u>
R224		159KOHM .1W 1% 0805 T/R	K 9 *
R225		100.KOHM .1W 1% CHIP 0B05	L 9 *
R226	· · · · · · · · · · · · · · · · · · ·	392 KOHM .1W 1% 0805 T/R	K 9 *
R227	A11371~6B21	6.8KOHM .1W 5% CHIP 0805	<u> </u>
R228	A11371-6814	680 DHM .5W 5% 2010 T/R	M 1 *
RZ29	A11371-8211	820 OHM .1W 5% 0805 T/R	K 7 *
R230		DO NOT INSTALL	<u>L B *</u>
R231	44.074 0000	DO NOT INSTALL	L 8 *
R232	A11371-2223	2.2K 0.25W 5% 1210 T/R	H 3 *
R233	A11371-7511	750 OHM .1W 5% 0805 T/R	<u> </u>
R234	C12613-5	1 KOHM TOP ADJUST TRIMMER T/R	J 8
R235	A11371-3923	3.9K .25W 5% 1210 T/R	J 7 *
R236	A11371-8201	82 DHM .1W 5% 0805 T/R	J_7_*
R237	A11368-49901	499 DHM .1W 1% 0805 T/R	K 8 *
R238	A11371-1213	128 DHM . 25W 5% 1210 T/R	K 8 *
R239		137 DHM .25W 1% 1210 T/R	K 8 *
R240		33 KOHM , 25W 5% 1210 T/R	K 8 *
R241	A11371-8211	820 OHM .1W 5% 0805 T/A	L 8 *
R242	125478-1	3.83KDHM 0.5W 1% 2010 T/R	L B *
R243	A11371-3333	33 KOHM , 25W 5% 1210 T/R	K B *
R244	A11371-1213	120 DHM . 25W 5% 1210 T/R	K B *
R245	A11371-1213	120 OHM . 25W 5% 1210 T/R	<u>K8*</u>
R246	A11371-1331	13KOHM .1W 5% 0805 T/R	J 2 *
R247	A11371-1011	100 OHM .1W 5% 0805 T/R	<u> </u>

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PADJ.	MD	398D <b>9</b>	<u> </u>	<u>0</u> .	<u> </u>	<u>1</u>	<u>ਤ</u>	<u>y</u>

PHONE 1219) 294-8888

SHEET 14
CONT. ON
SHEET 15 SHEET 14 CONT. ON SHEET 15

	C.P.N.	DESCRIPTION	MAP LOC.
R24B	A11371-1811	180 OHM .1W 5% 0805 T/R	K 2 *
R25Ø	A11371-5863	5.6 OHM .25W 5% 1210 T/R	<u>J</u> <u>2 *</u>
R252	103199-1	0.4, 1W, 5%, 2512	K 4 *
R253	103199-1	0.4. 1W. 5%. 2512	<u> </u>
R254		OMITTED FOR THIS ASSEMBLY	1, 4 4
R255	<del></del>	OMITTED FOR THIS ASSEMBLY	М 3 *
R256	103199-1	0.4. 1W. 5%. 2512	N 4 *
R257	103199-1	Ø.4. 1W. 5%, 2512	N 3 *
R258		DO NOT INSTALL	HI
R259	103199-1	Ø.4, 1V. 5%, 2512	D 4 *
R260	A11371-1501	15 OHM . 1W 5% 0885 T/R	D 1 *
R261	A11371-1331	13KOHM .1W 5% 0805 T/R	E 2 *
R262	A11371-4701	RES. 47 OHM .1W 5% CHIP 0805	E 2 *
R263	A11371-1811	180 OHM .1W 5% 8805 T/R	E 2 *
R265	A11371-5R63	5.6 DHM . 25W 5% 1210 T/R	E 2 *
R267	103199-1	0.4. 1W. 5%. 2512	E 4 #
R268	103199-1	Ø.4, 1W. 5%, 2512	F 3 *
R269		OMITTED FOR THIS ASSEMBLY	F 4 +
R270		OMITTED FOR THIS ASSEMBLY	G 3 *
R271	103199-1	0.4. 1W. 5%. 2512	H 4 *
R272	103199-1	0.4. 1W. 5%, 2512	_ нэ *
R274	A11371-4751	4.7MEGDHM. 0.10W 5% MF 0805	E 8 *
R275	A11368-51111	5.11KOHM .1W 1% 0805 T/R	E8 *
R276	A11368-10021	10K 1/10W 1% SMD 0005 T/R	E
R277	A11368-10021	10K 1/10W 1% SMD 0805 T/R	EB*
R278	A11368-90921	90.9K, 0.10W 1% MF 0805	L9*
R279	A11368-10031	100.KOHM .1W 1% CHIP 0805	E 7 *
R280	A11368-39231	392 KOHM .1W 1% 0805 T/R	E8 *
R281	A11371-6814	680 DHM .5W 5% 2010 T/R	M 1 *
R282	A11368-10021	10K 1/10W 1% 5MD 0805 T/R	D 8 *
R283	A11368-10031		D 8 *
R284	A11368-20023	20.0KOHM . 25W 1% 1210 T/R	F 9 *
R285	A11368-10021	10K 1/10W 1% SMD 0605 T/R	F 8 *
R286	A11368-10031	100.KOHM .1W 1% CHIP 0805	L 10 +
R287	A11368-15831	158KDHM .1W 1% 0805 T/R	K 18 *
R288	A11368-15831	158KOHM .1W 1% 0805 T/R	K 10 *
R289	A11369-10031	100.KOHM .1W 1% CHIP 0805	K 10 *
R290	A11368-57621	57.6K, .1W. 1%, CHIP	N 3 *
R291	A11368-22601	226 DHM 0.1W 1% 0805 T/R	* E N
R292	A11371-4751	4.7MEGOHM, 0.10W 5% MF 0805	J 9 *
R293	A11368-10021	10K 1/10W 1% SMD 0805 T/R	K 9 *
R294	A11371-8201	82 CHM . 1 W 5% 0805 T/R	J 7 *
R295	A11371-8211	820 OHM .1W 5% 0805 T/R	J 7 *
R300	103199-1	Ø.4. 1W, 5%, 2512	D 7 *
R3Ø1	103199-1	Ø. 4. 1W. 5%. 2512	J 7 *
R3Ø2	103199-1	Ø.4. 1W. 5%, 2512	K 6 *
R3Ø3		OMITTED FOR THIS ASSEMBLY	L 7 *
			<u> </u>

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### CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

DRAWN TLM 89-89-97 DWG, NO.

PROJ. MD399D8 1 2 1 3 9

SHEET 15 HEY CONT. DN SHEET 16

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R304		OMITTED FOR THIS ASSEMBLY	м 6 *
R305	103199-1	Ø.4. 1W. 5%, 2512	М 7 *
R305	103199-1	0.4. 1W. 5%, 2512	N6 *
R3Ø7	103199-1	Ø.4. 1W. 5%, 2512	E_7 *
R308	103199-1	Ø. 4. 1W. 5%, 2512	F 6 *
R309		OMITTED FOR THIS ASSEMBLY	G 7 *
R310		OMITTED FOR THIS ASSEMBLY	<u> 56 *</u>
R311	103199-1	0.4. 1W. 5%, 2512	<u> </u>
R312	103199-1	Ø.4. 1W. 5%, 2512	16 *
R313	A11369-10021	10K 1/10W 1% SMD 0805 T/R	G 7 *
R314	A11371-3341	330 KOHM .1W 5% 0005 T/R	G 7 *
R315	A11368-5111 <u>1</u>	5.11KOHM .1W 1% 0805 T/R	H 7 *
R316	A11368-10021	18K 1/18W 1% SMD 8885 T/R	M 10 *
R317	A11371-3934	39K .5W 5% Z010 SMT T/R	N 7
R318	A11371-3934	39K .5W 5% 2010 SMT T/R	NB
R319		DO NOT INSTALL	M 10 *
R322	A11371-2713	270 DHM . 25W 5% 1210 T/R	L 9
R323	A11371-ØRØ2	Ø_OHM .125W 5% CHIP RES T/R	G 7
R400	103199-1	0.4. 1W, 5%, 2512	D 4 *
R401	103199-1	0.4. 1W, 5%, 2512	J 4 *
R402	103159-1	0.4, 1W, 5%, 2512	кз*
R403		OMITTED FOR THIS ASSEMBLY	L 4 *
R404	<del> </del>	OMITTED FOR THIS ASSEMBLY	мз*
R405	103199-1	0.4. 1W. 5%, 2512	M 4 *
R406	103199-1	0.4. 1W, 5%, 2512	N 3 *
R487	103199-1	Ø.4, 1W, 5%, 2512	E 4 *
R408	103199-1	0.4, 1W, 5%, 2512	F 3 *
R409		OMITTED FOR THIS ASSEMBLY	54*
R410		OMITTED FOR THIS ASSEMBLY	G 3 *
R411	103199-1	0.4, 1W, 5%, 2512	H 4 *
R412	103199-1	Ø. 4. 1W, 5%, 2512	I 3 *
R413	A11368-10021		E 7 *
R414	A11371-3341	330 KOHM .1W 5% 0865 T/A	E7 *
R415	A11368-51111	5.11KDHM .1W 1% 0805 T/A	E 7 *
R416	A11368-10021	10K 1/10W 1% SMD 0605 T/R	K 10 *
R417	A11371-3934	39K .5W 5% 2010 SMT T/R	K 7
R41B	A11371-3934	39K .5W 5% 2010 SMT T/A	K B
R419		DO NOT INSTALL	K 10 *
R420	A11371-5R65	5.6 OHM 1W 5% 2512 T/R	H 2 *
R421	A11371-5R65	5.6 OHM 1W 5% 2512 T/R	H 2 *
R422	A11371-2713	270 OHM . 25W 5% 1210 T/R	J 9
R423	A11371-0802	0 OHM .125W 5% CHIP RES T/R	F 7
5100	102488-1	SPDT HORIZ SLIDE	L 10
	C 9896-9		
TP38		TEST POINT PCB .1" CTR LOOP TEST POINT PCB .1" CTR LOOP	K 2
TP39	C 9896-9		
U1	C 5095-2	MC781SCT +15V. REG	H 10
U2	C 5096-0	MC791SCT -15V. REG	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTA-100%	N 10
U4	C 8262~5	MC33078D LOW NOISE DUAL OF AMP	I 9

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TLM 89-89-97 DWG. NO. DRAWN 02 PAOJ. MD390D0

SHEET 18 CONT. ON SHEET 17



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
U5	C B262-5	MC33078D LOW NOISE DUAL OF AMP	N 9
ЦIX	<u>C 9</u> 918-1	TO228 VERT CLIP-ON HEATSINK	P 10
U2X	<u>C</u> 9918-1	TO220 VERT CLIP-ON HEATSINK	H S
U100	C 7816-9	VACTEC VTL5C2 OPTO-CELL	M 5
U101	C 9012-3	OP AMP, QUAD LO NOISE MC33079D	M 10
U102	C 9038-8 _	COMPARATOR, QUAD LM339D 30-14	NS
U1 <b>04</b>	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U1 <b>0</b> 5	C 8262-5	MC33878D LOW NOISE DUAL OF AMP	F 7
U106	H42902-9	ASM. THERMAL SENSE	N 5
U200	C 7816-9	VACTEC VILSC2 OPTO-CELL	Х 9
U2Ø1	C 9012-3	OP AMP, QUAD LO NOISE MC33078D	J 10
⊔2 <b>0</b> 2	C 9038-8	COMPARATOR, CUAD LM339D SC-14	K 9
<b>⊔204</b>	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D LOW NOISE DUAL OF AMP	E 7
U2Ø6	H42902-9	ASM, THERMAL SENSE	N 3
WP1		WIRE, 16 RED 3/16" X 5 X FAST	A 10
WPZ	103331-N050R		A 18
ESW		WIRE, 16 BLU 3/16" X 5 X FLAG	A 19
WP4	101031-1	0.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	0.250 FASTON, AUTO INSERTABLE	D 4
WP6	· - · · · · · · · · · · · · · · · · · ·	WIRE, 22 WHT 3/16X14 X FAST	J B
Z1		REFERENCE FOR SOLDER PAD LOCATION	E 9
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DRAWN PROJ.

18HAWAKA RDAD ELKHART. INDIANA 48517
TLM 98-89-97 DWG. NO.
MD398D8 102139

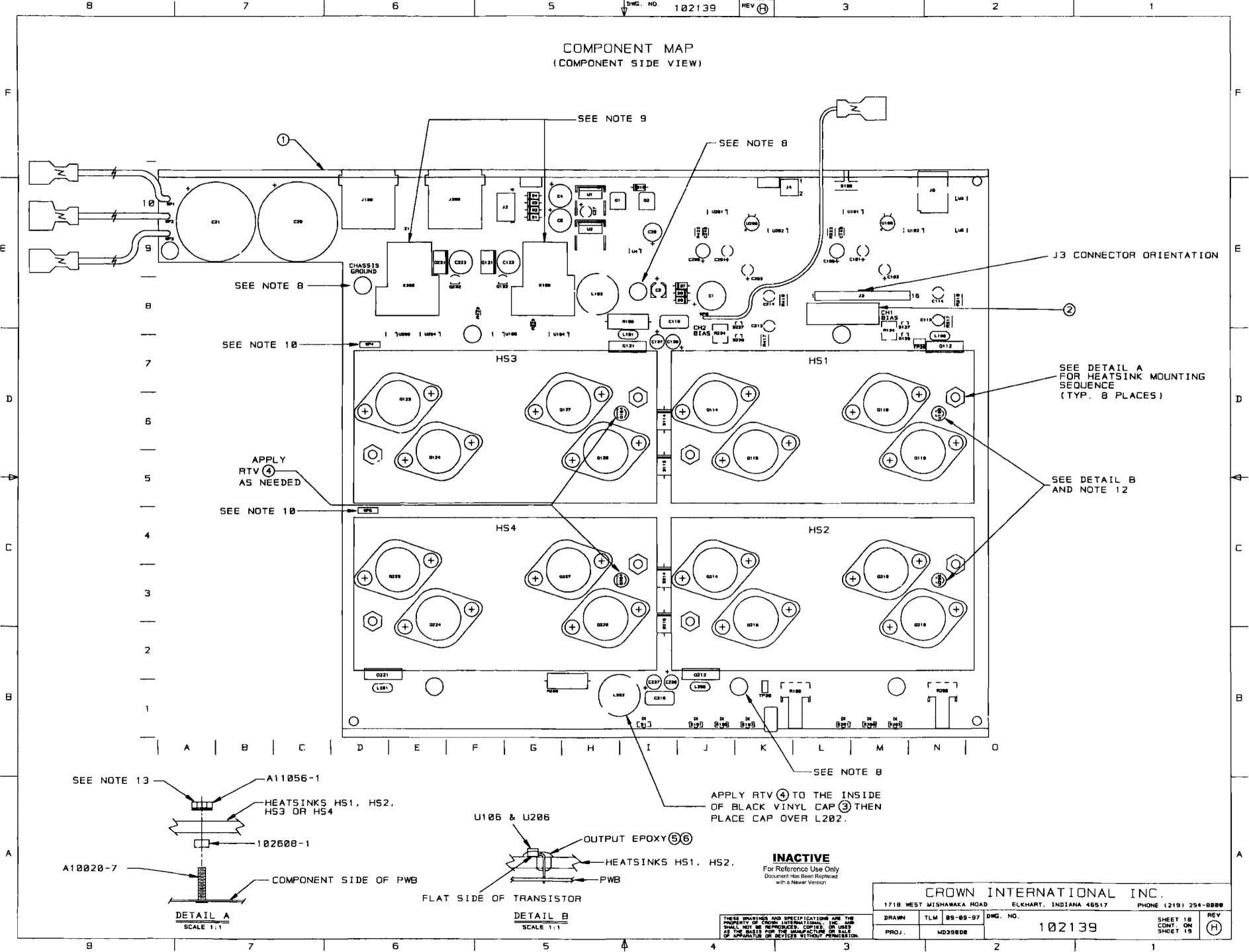
(219) 294-8898 HEET 17 REV SHEET 17 CONT. ON SHEET 18

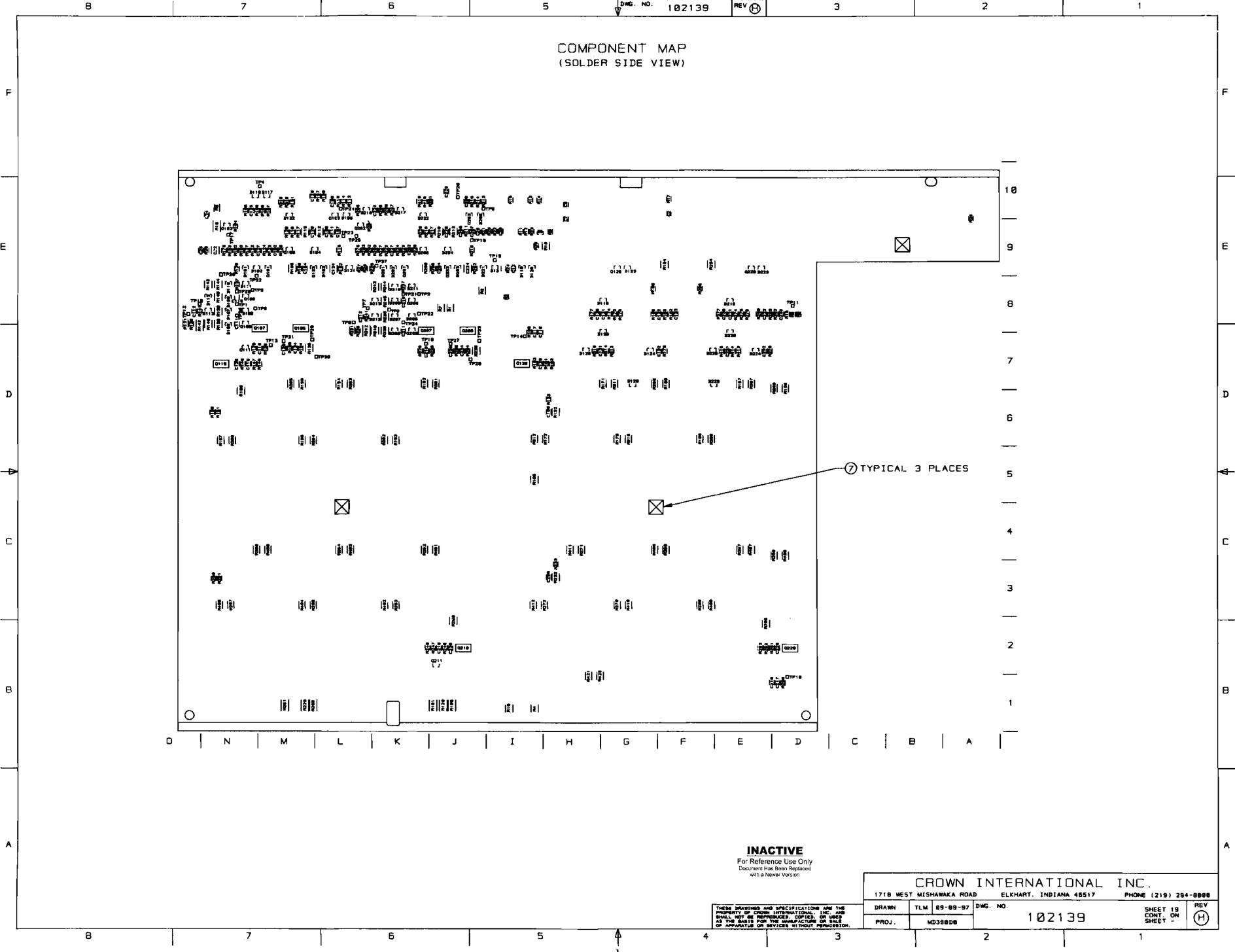




### **Component Map**

for use with Main PWA #102139-6





٦ ـ ـ ـ	701-	95.4	PÉCCRIPTION .	2175		A:	PPRO	DVAL	S	1
E.C.	ZONE	HEV.	DESCRIPTION	DATE	Ð	CHK	ME	EE	PE	]
			PRODUCTION RELEASE (LEVEL I)	9-23-98	JFL	TLM			TS	
9860780		В	C606.C607 WERE 0.1MF. R1.R7.R32.R34 WERE 270. R6 WAS 8.87K. R18 WAS 7.68K. R29 WAS 4.7M. U100.U200 WERE 102723-1. J500.J600 WERE 125365-1. 102488-1 WAS DPDT. C 3510-2 WAS C 3510-7.	11-04-98	JAW	24			<b>B</b>	Ot.

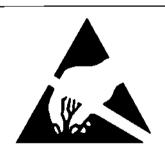
#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102141.
- 2. PWB PART NUMBER 102138-8.
- 3. THE PWA SHALL MEET THE IPC+A-610. CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
  - COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT,
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL 8.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE THANSISTOM AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 5-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-1 ON COMPONENT SIDE.
- 15. APPLY GENEROUS COAT OF 127023-1 OVERCOAT TO PARTS C121.C124.C221.C224. COVER ADJACENT PARTS.



#### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

#### INACTIVE

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PRIN	TS TO	1718 WEST	MISHAWA	KA MOAD	ELKH	ART.	INDIANA 48	517	PHONE (219) 29	4~8000
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		DRAWN	JFL	9-23-98	A	PPAO	VED BY:	DO NO	T SCALE PRINT	·
		CHECKED	TLM	09-24-96	MÉ			SUPERSEDE	5	_
		SCALE	N	IONE	EE			E.C.		
		PROJ #	MD	39000	PE	TS	09-23-98	DWG. NO.	SHEET 1 OF 20	REV
		FILENAME:	102135	9-8_A.PCB	NE>	(T A5	SM:	102	139-8	ៈ

PARTS LIST						
C.P.N.	DESCRIPTION	ΩTY	REFERENCE DESIGNATION			
A10020-7	6-32 X . 625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,			
.,,,			HW15, HW16			
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212			
A10266~2R74	2.7 OHM 2W 5% CF	1	R158			
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218			
A11056~1	6-32 HEX NUT W/BELLEVILLE	8	HW17. HW18, HW19, HW20, HW21,			
(****			HW22, HW23, HW24			
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101.R106,R110.R201.R206,			
1,7,500 - 700,57			R210, R316, R416			
A11368~10021	10K 1/10W 1% CHIP 0805	34	R9.R27.R104.R107.R108.R111.			
711/200 (000)			R121,R176,R177,R182,R185.			
			R193.R204.R211.R221.R276.			
			R277, R282, R285, R293, R313,			
			R413.R500,R501,R502,R503,			
			R504.R506.R600.R601.R602.			
	-		R603, R604, R606			
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25.R30,R31,R123,R125,R179,			
ATTENDE TENDE	TOOK D. C.	1 .	R183, R186, R189, R223, R225,			
			R279.R283,R286.R289			
A11358~12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21			
A11368-13703	137 OHM Ø.25W 1% CHIP	2	R139.R239			
A11368~15831	158K Ø.10W 1% CHIP Ø8Ø5	8	R122, R124, R187, R188, R222,			
A11300 13031	1358 6.144 12 6111 6655		R224, R287, R288			
A11368-19122	19.1K Ø.125W 1% CHIP 1206	2	R109, R209			
A11368~20023	20K 0.25W 1% CHIP 1210	3	R10.R184.R284			
A11368-22601	226 DHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291			
A11368-39231	392K Ø.10W 1% CHIP 0805	8	R22.R23,R102.R126.R180,R202.			
X11300 33231	4328 5. 140 171 6.111 6865		R226, R280			
A11368~499Ø1	499 OHM 0.10W 1% CHIP 0805	4	R103, R137, R203, R237			
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113.R175,R213.R275,R315,R415			
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290			
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118.R218			
A11368-68121	68.1K 0.10W 1% CHIP	3	R12.R115.R215			
A11368~71511	7.15KOHM Ø.10W 1% Ø8Ø5 T/R	1	R18			
A11368~76811	7.68KOHM Ø.10W 1% SMT Ø8Ø5	1	R5			
A11368-82511	8.25K Ø.1W 1% CHIP Ø8Ø5	3	R17, R114, R214			
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6			
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278			
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134.C234			
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602			
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207			
A11369~330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242			
A11369-33032	470PF 50V 10% NPC 0805 T/R	4	C110, C141, C210, C241			
A11371~0R02	0.0 OHM JUMPER CHIP 1206	2	R323.R423			
	0.2 OHM 0.10W 5% CHIP 0805	2				
A11371-0R21	<del></del>	_	R14, R15			
A11371~1011	100 OHM 0.10W 5% CHIP 0805	3	R13.R147.R247			
A11371-1013	100 OHM .25W 5% 1210 SMT T/R		R322, R422			
A11371-1022	1K 0.125W 5% CHIP 1205	1	RB			
A11371-1213	120 OHM 0.25W 5% CHIP	6_	R138, R144, R145, R238, R244, R245			
A11371-13 <u>31</u>	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R245,R261			

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ELKHART, INDIANA 46517 1718 WEST MISHAWAKA ROAD JFL 9-23-98 DRAWN PROJ. MD39@D@

SHEET 2 OF 20 DWG. NO. 102139-8

PHONE (219) 294-8000 REV (B

	PARTS LIST					
C.P.N	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A11371-1501	15 OHM Ø.10W 5% CHIP	4	C606.C607.R160.R260			
A11371-1811	180 CHM 0.10W 5% CHIP	4	R148, R163, R248, R263			
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232			
A11371~2225	2.2K 1W 5% CHIP 2512	3	R1,R2,R7			
A11371-3313	330 OHM 0.25W 5% CHIP	2	84, R19			
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243			
A11371~3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314.			
			R414			
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235			
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418			
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162.R262			
A11371-4751	4.7M 0.10W 5% CHIP 0805	4	R174,R192,R274,R292			
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265			
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420.R421			
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281			
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227			
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233			
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294			
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607			
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295			
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1			
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3			
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C102,C109,C115,C202,C209,C215			
A11427-104K2	0.1 MF 50V 10% 0805	32	C2,C6,C7,C12,C24,C25,C28,C29,			
			C122.C126.C127.C128.C129.			
			C130,C131,C132,C133,C139,			
			C222,C226.C227.C228.C229.			
			C230, C231, C232, C233, C239,			
			C505, C506, C605, C608			
	0.012 MF 50V 10% CHIP	2	C112,C212			
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C1_17,C217			
A11427-472K2		4	C116,C119,C216,C219			
A12125-3140K	WIRE. 22 WHT 3/16X14 X FAST	1	WP6			
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10			
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100.L101.L200.L201			
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8			
C 3679-5	33UF 50V 20% VERT ELECT	1	C31			
C 4477-3	470 MF 35V VERT	2	C4,C5			
□ 5095-2	POS. 15 VOLT REG.	1	U1			
C 5096-0	NEG. 15 VOLT REG.	1	U2			
C 5362-6	2.2 MF 50V VERT	1	C27			
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240			
€ 7448-1	MMBT3904 CHIP NPN	6	0100,0101,0129,0200,0201,0229			
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4.U5.U105.U205			
C 8576-8	100 MF 35V 10% ELEC	1	C26			
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500			
C 9038-8	COMPARATOR, QUAD LM339D 50-1	4	U102, U104, U202, U204			
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C1 23, C223			

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517

DRAWN JFL 9-23-98 DWG. NO.

PROJ. MD39@D@ 1 2 1

o. SHEET 3 OF 20 102139-8

B

PHONE (219) 294-8000

	PARTS LIS	T	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104.Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	54	D9, D13, D101, D102, D103, D104,
			D105.D106.D107.D108.D109.
			D110, D111, D112, D113, D116,
			D117.D118.D119.D120.D121.
			D122, D123, D124, D125, D126,
_			D127, D128, D129, D201, D202,
			D203.D204.D205.D206.D207.
			D208.D209.D210.D211.D212.
			D213, D216, D217, D218, D221.
_			D222.D223.D224.D225.D226.
_			D227, D228, D229
C 9896-9	TEST POINT LOOP	2	TP38.TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1 X, U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102.0109.0111.0202.0209.0211
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21
H42902-9	ASM, THERMAL SENSE	2	U106,U206
5 5700-0	732 RTV RUBBER 10.3 OZ CLEAR	Ø	4
101015-1	LBL, BARCODE,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 5P4 COND MODULAR R/A	1	15
102138-8	PWB. CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438~221K2	220PF 200V 10% NPO 0805	2	C111.C211
102438-560K2	56PF 200V 10% NPO 0805	4	C106.C206.C504.C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108.C138.C208.C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101.C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103.C203.C503.C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR. 16POS .100 CTR SGL ROW	1	EL
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED. SMT R/A GREEN	3	E1.E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	2	01,02
102480-1	FET, N-CH 25V 50MA SOT-23	2	0133,0233
102481-1	NPN 25V LOW NOISE SOT-23	2	0108,0208
102483-1	PNP 300V 500MA SOT-23	2	0103,0203
102486-1	OPTO BJT NPN SOIC-B CTR -100	1	U3
102488-1	SPDT VERT SLIDE 12MM SHAFT	1	5100
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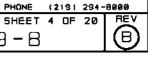
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CROWN	INTE	RNATIO	JNAL	INC.
WEST MISHAWAKA HOA	D ELKHART,	INDIANA 46517	PHONE	(2191 294-88

DWG. NO.

1718 WEST MISHAWAKA ROAD JFL 9-23-98 DRAWN PROJ. MD390D0

SHEET 4 OF 20 <u> 10</u>2139-8



C.P.N. DESCRIPTION OTY REFERENCE DESIGNATION   102559-3		PARTS LIS	T	
102570-3	C. P. N.	DESCRIPTION	άΤΥ	REFERENCE DESIGNATION
102570-3	102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	H53
102571-3			1	HS4
102572-3			1	HS1
102579-1   STAND. 1/4 RD SWAGE AL   2   HW25.HW26     102595-3   POT. 5K LIN 21 DNT 12MM HORI   2   R100.R200     102608-1   SPACER. 6X.187 LONG ALUMINUM   8   HW1.HW2.HW3.HW4.HW5.HW6.HW7.     HWB			1	
102595-3			2	Hw25. Hw26
102608-1   SPACER, 6X.187 LONG ALUMINUM   8				
HWB     102723-2				
102723-2	102000 1	#*************************************		
103180-1	102723-2	OPTO CELL ON=500 OHM	2	
103191-1				
103192-1				C121, C124, C221, C224
103193-1			4	
103199-1				
R167,R168,R171,R172,R252, R253,R256,R257,R259,R267, R268,R271,R272,R300,R301, R302,R305,R306,R307,R308, R311,R312,R400,R401,R402, R405,R406,R407,R408,R411,R412  103210-1 2.2UF 160V RADIAL T/R 4 C136,C137,C236,C237  103331-N050R WIRE, 16 BLK/WHT TAB X S X T 1 WP2  103415-7060B SCREW.6-32 X.5 TORX PNHD SEM 2 HW27,HW28  125106-1 MAC9D B AMP 400V TRIAC 2 0131,0231  125242-1 CAP, 625ID X 1" VINYL 1 3  125242-1 CAP, 625ID X 1" VINYL 1 3  125482-1 ADHESIVE LOCTITE 304 OUTPUT 0 5  125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6  125470-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142,R242  125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3,C30  126317-1 REL, 30A 24V SPST PCB W/FAST 2 K100,K200  126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1				
R253,R256.R257.R259.R267. R268,R271.R272,R300,R301, R302.R305,R306,R307,R308, R311.R312,R400,R401,R402, R405.R406.R407,R408,R411,R412  103210-1 2.2UF 160V RADIAL T/R 4 C136,C137,C236,C237  103331-N050R WIRE, 16 BLK/WHT TAB X S X T 1 WP2  103415-7060B SCREW.6-32 X.5 TORX PNHD SEM 2 HW27.HW28  125106-1 MAC9D B AMP 400V TRIAC 2 0131,Q231  125242-1 CAP, 625ID X 1" VINYL 1 3  126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600  125482-1 ADHESIVE LOCTITE 304 OUTPUT 0 5  125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6  125470-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142,R242  125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3,C30  126317-1 REL, 30A 24V SPST PCB W/FAST 2 K100,K200  126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1	162123 1	2. 4 G(W) 1W 3% 2512 1711	30	
R268.R271.R272.R300.R301. R302.R305.R306.R307,R308. R311.R312.R400.R401.R402. R405.R406.R407.R408.R411.R412  103210-1 2.2UF 160V RADIAL T/R 4 C136.C137,C236.C237  103331-N050R WIRE. 16 BLK/WHT TAB X S X T 1 WP2  103415-70608 SCREW.6-32 X.5 TORX PNHD SEM 2 HW27.HW28  125106-1 MAC9D 8 AMP 400V TRIAC 2 O131.O231  125242-1 CAP625ID X 1" VINYL 1 3  126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600  125482-1 ADHESIVE LOCTITE 394 OUTPUT 0 5  125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6  125470-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142.R242  125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30  126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200  126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1				
R302.R305,R306.R307,R308, R311.R312.R400,R401.R402, R405.R406.R407,R408,R411,R412  103210-1				
### ##################################				
R405.R406.R407,R40B,R411,R412     103210-1			i	
103210-1 2.2UF 160V RADIAL T/R 4 C136,C137,C236,C237  103331-N050R WIRE, 16 BLK/WHT TAB X 5 X T 1 WP2  103415-7060B SCREW.6-32 X.5 TORX PNHD SEM 2 HW27.HW2B  125106-1 MAC9D B AMP 400V TRIAC 2 0131,Q231  125242-1 CAP, .625ID X 1" VINYL 1 3  126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600  125482-1 ADHESIVE LOCTITE 384 OUTPUT 0 5  125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6  125478-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142.R242  125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30  126317-1 REL, 30A 24V SPST PCB W/FAST 2 K100.K200  126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1			_	
103331-N050R WIRE, 16 BLK/WHT TAB X S X T 1 WP2 103415-7060B SCREW.6-32 X.5 TORX PNHD SEM 2 HW27.HW2B 125106-1 MAC9D B AMP 400V TRIAC 2 0131.Q231 125242-1 CAP, .625ID X 1" VINYL 1 3 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600 125482-1 ADHESIVE LOCTITE 384 OUTPUT 0 5 125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6 125470-1 3.B3KOHM 0.50W 1% 2010 T/R 2 R142.R242 12550B-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30 126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1	100010			
103415-7060B SCREW.6-32 X.5 TORX PNHD SEM 2 HW27.HW2B 125106-1 MAC9D 8 AMP 400V TRIAC 2 0131,0231 125242-1 CAP625ID X 1" VINYL 1 3 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600 125482-1 ADHESIVE LOCTITE 384 OUTPUT 0 5 125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6 125478-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142.R242 125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30 126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1				
125106-1 MAC9D 8 AMP 400V TRIAC 2 0131,0231 125242-1 CAP, .625ID X 1" VINYL 1 3 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600 125482-1 ADHESIVE LOCTITE 384 OUTPUT 0 5 125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6 125478-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142,R242 125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3,C30 126317-1 REL, 30A 24V SPST PCB W/FAST 2 K100,K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1				· · · =
125242-1				
126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600  125482-1 ADHESIVE LOCTITE 384 OUTPUT 0 5  125483-1 ACTIVATOR LOCTITE "OUTPUT" 0 6  125478-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142.R242  125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30  126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200  126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1			2	0131,0231
125482-1 ADHESIVE LOCTITE 384 OUTPUT Ø 5 125483-1 ACTIVATOR LOCTITE "OUTPUT" Ø 6 125478-1 3.83KOHM Ø.5ØW 1% 2010 T/R 2 R142.R242 1255ØB-1 10UF 5ØVDC ELECTROLYTIC SMD 2 C3.C3Ø 126317-1 REL. 3ØA 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1			1	_
125483-1 ACTIVATOR LOCTITE "OUTPUT" Ø 6 125478-1 3.83KOHM Ø.5ØW 1% 2010 T/R 2 R142.R242 1255Ø8-1 10UF 5ØVDC ELECTROLYTIC SMD 2 C3.C3Ø 126317-1 REL. 3ØA 24V SPST PCB W/FAST 2 K100.K200 128325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1			2	
125478-1 3.83KOHM 0.50W 1% 2010 T/R 2 R142.R242 125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30 126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1			0	5
125508-1 10UF 50VDC ELECTROLYTIC SMD 2 C3.C30 126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1	125483-1			
126317-1 REL. 30A 24V SPST PCB W/FAST 2 K100.K200 126325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1	125478-1			
128325-1 DPDT MINI SLIDE NON-SHORT PC 1 S1	125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30
	126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100.K200
127023-1 OVERCOAT PEN	128325-1	DPDT MINI SLIDE NON-SHORT PC	1	S1
	127023-1	OVERCOAT PEN	Ø	8
		_		
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				-

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1718 WEST MISHAWAKA ROAD DRAWN JFL 9-23-98 PROJ. MD390D0

SHEET 5 OF 20 REV DWG. NO. 102139-8



PHONE (219) 294-8888

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J B
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
СЗ	125508-1	10UF 50VDC ELECTROLYTIC SMD	1 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-1Ø4K2		H 10*
C7	A11427-104K2		н 5*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	СЭ
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	**	0.1 MF 50V 10% 0805	N 9*
C25		0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		0.1 MF 50V 10% 0805	J 9*
C29		0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	мв
C102		0.01MF 50V 10% CHIP 0805	M 9*
C103	102467-1	22MF 25V 20% RAD T/R	м в
C104		100PF 200V 10% NPO 0805	м 9*
C105		100 MF 25V 20% VERT ELEC	L 9
C106		56PF 200V 10% NPO 0805	į 9*
C107		27PF 50V 10% NPO 0805 T/R	L 9*
C108		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0805	н 6*
C110	<del></del>	470PF 50V 10% NPO 0805 T/R	M 7*
C111		220PF 200V 10% NPO 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C11B		Ø.1 MF 25ØV 5% MTL POLY	I 8
C1 ( 9		4700PF 50V 10% X7R 0805	I 7*
C12Ø	_	100PF 200V 10% NPO 0805	I 7*
C121	103191-1	Ø.47UF Z5U 121Ø 20% 50V	G 8*
C122		Ø.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F B
C124	103191-1	0.47UF Z5U 1210 20% 50V	L 9*
C126		0.1 MF 50V 10% 0805	N 10*
C127		Ø.1 MF 50V 10% 0805	N 9*
C128		Ø.1 MF 50V 10% 0805	M 10*
C1 29		0.1 MF 50V 10% 0805	м 9*
		<del>-</del>	
L	·	<u> </u>	<u> </u>

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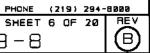
#### INC. CROWN INTERNATIONAL ELKHART. INDIANA 48517

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DWG. NO. JFL 9-23-98 DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 6 OF 20 102139-8



<u> </u>		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	н 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
□134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	_	82PF 200V 10% NPO 0805	м 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C14Ø	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	М 10
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C2Ø2	_	0.01MF 50V 10% CHIP 0805	K 9*
C2Ø3	102467-1	22MF 25V 20% RAD T/R	к 9
C204		100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C2Ø6		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	19*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	н э*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
£211		220PF 200V 10% NPO 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C213	102458-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	KΒ
C215		0.01MF 50V 10% CHIP 0805	к 8*
C216		4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1*
C218	·	0.1 MF 250V 5% MTL POLY	I 1
C219		4700PF 50V 10% X7R 0805	E 1*
C220		100PF 200V 10% NPO 0805	D 2*
C221	103191-1	0.47UF Z5U 1210 20% 50V	E 8*
C222		0.1 MF 50V 10% 0805	E 8*
C223		100UF 16V 20% NP ELEC RAD T/R	F 9
C224	103191-1	0.47UF Z5U 1210 20% 50V	J 9*
C226		0.1 MF 50V 10% 0805	K 10*
C227		Ø.1 MF 50V 10% 0805	K 9*
C228		0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C230		0.1 MF 50V 10% 0805	E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232		0.1 MF 50V 10% 0805	E 7*
C233	-	0.1 MF 50V 10% 0805	D 8*
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235		100PF 200V 10% NPO 0805	J 2*
2432	TOZTOU TOTAZ		J 2 "

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ELKHAHT. INDIANA 46517 JFL 9-23-98 DRAWN PAGJ. WD39@D@

1718 WEST MISHAWAKA ROAD

PHONE (218) 294-8998 SHEET 7 OF 20 RE DWG, NO. 102139-8



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238		82PF 200V 10% NPO 0805	J 7*
C239	<del> </del>	0.1 MF 50V 10% 0805	E 7*
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241		470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C500		12PF 50V 10% NPO 0805 T/R	A 2
C501		12PF 50V 10% NPO 0805 T/R	A 2
C502		12PF 50V 10% NPO 0805 T/R	8 2
C503	102467-1	22MF 25V 20% RAD T/R	8 2
C504		56PF 200V 10% NPO 0805	A 2
C505	f	0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C503	ATTTE TOTAL	OPEN	8 2
C600	411369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	<del></del>	12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604		56PF 200V 10% NPO 0805	B 2
C605		0.1 MF 50V 10% 0805	A 1
C806	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
C607	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
C808		0.1 MF 50V 10% 2805	B 1
C809	A11427-184NZ	OPEN	B 2
Di	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J B
D7	C 2851-1	1N4004 SILICON RECT.	J B
DB	C 3549-0	DIODE ZENER, 10V, 1N52408	J B
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D1 Ø 1	C 9283-Ø	DIDDE, 1N914/1N414B SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D109	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIDDE. 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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1718 WEST	MISHAWA	KA ROAD	ELKHART, INDIANA 46517
DRAWN	JFL	9-23-98	DWG. NO.
PROJ.	MΩ	390D0	1021

PHONE (219) 294-8868 SHEET 8 OF 20 RE



PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D113	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	мв
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D2Ø1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	к 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9#
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к в∗
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D2Ø8	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К В*
D21Ø	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к в*
D212	C 9283~Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 9*
D223	C 9203-0	DIODE, 1N914/1N4148 \$OT-23 \$MT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 92 <b>03-0</b>	DIODE, 1N914/1N4148 SOT-23 SMT	ΚВ
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	F 6*
E1	102476-1	LED. SMT R/A GREEN	Ī 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
	j		
-			

For Reference Use Only

#### CROWN INTERNATIONAL INC.

JFL 9-23-98 DRAWN PAOJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 9 OF 20 RE ELKHART, INDIANA 46517 DWG. NO.



C.P.N. 102477-1 102477-1 102476-1 102477-1 102571-3	DESCRIPTION LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A GREEN	MAP LOC. K 1 M 1
1 0 2 4 7 7 - 1 1 0 2 4 7 6 - 1 1 0 2 4 7 7 - 1	LED, SMT R/A RED	
102476-1		M 1
102477-1	LED. SMT B/A GREEN	
		L 1
	LED, SMT R/A RED	M 1
1023/1-3	HS ASM, T1 NON-ISOLATED CH1,	L 6
102572-3	HS ASM, T1 NON-ISOLATED CH2.	L 3
102569-3	HS ASM, T1 ISOLATED CH1. , ,	G 6
· • • • • • • • • • • • • • • • • • • •		G 3
		A 4
		A 4
		A 4
		A 4
		A 4
+		B 4
· •		B 4
		B 4
_		D 5
		I 6
		D 2
		I 3
<del></del>		J 5
	· · · · · · · · · · · · · · · · · · ·	N 6
		J 2
		N 3
<del></del>		A 4
_		A 4
<del></del>		A 4
<del></del>		A 4
		A 4
<del></del>		B 4
		B 4
<del></del>		B 4
		A 1
		A 2
		A 4
<del>_</del>		A 4
101573-1		G 10
· · · · · · · · · · · · · · · · · · ·	HDR, 16POS .100 CTR SGL ROW	м 8
		L 10
	JACK, 6P4 COND MODULAR R/A	N 10
102473-1		D 10
<del></del>		F 10
		B 3
<del>_</del>		C 1
		B 1
†		G 9
· • • • • • • • • • • • • • • • • • • •		E 9
		N 7
		13 /
[1	02570-3 02608-1 02608-1 02608-1 02608-1 02608-1 02608-1 02608-1 02608-1 02608-1 02608-1 02608-7 10020-7 10020-7 10020-7 10020-7 11056-1 11056-1 11056-1 11056-1 11056-1 11056-1 11056-1 11056-1 11056-1 02579-1 02579-1 03415-70608 03415-70608 01573-1 01993-1	## ## ## ## ## ## ## ## ## ## ## ## ##

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PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 PHONE (219) 294-8000 DWG, NO. SHEET 10 OF 20 RE





		PARTS LIST	
REF DES	C.P.N	DESCRIPTION	MAP LOC.
L1@1	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
	C 3510-2	CHOKE, 470LH 10% AXIAL	J 1
L.201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L2Ø2	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I i
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 744B-1	MMBT3904 CHIP NPN	M 9*
Q1Ø1	C 7448-1	MMBT3904 CHIP NPN	м 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q1Ø3	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	€ 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q1Ø5	103193-1	PNP 300V 500MA 50MHZ SDT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ 50T-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112		INSTALLED ON THE PREVIOUS ASSEMBLY	N 7
Q114		INSTALLED ON THE PREVIOUS ASSEMBLY	J 6
0115		INSTALLED ON THE PREVIOUS ASSEMBLY	K 5
Q118	_	INSTALLED ON THE PREVIOUS ASSEMBLY	м 6
0119		INSTALLED ON THE PREVIOUS ASSEMBLY	N 5
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
0121	1	INSTALLED ON THE PREVIOUS ASSEMBLY	I 7
Q123	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	E 6
0124	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	E 5
0127	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	H 6
Q128		INSTALLED ON THE PREVIOUS ASSEMBLY	H 5
0129	C 7448-1	MMBT3904 CHIP NPN	G 9*
0131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER SAS BY THRESH	F 9
0133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
0201	C 744B-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252-5	ZN3904 40V VPN TRANSISTOR	I 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0212	<del>                                 </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	J 2
Q214	<del>-</del>	INSTALLED ON THE PREVIOUS ASSEMBLY	J 3
0215	-	INSTALLED ON THE PREVIOUS ASSEMBLY	K 3
3213	+	THE THE TOUR ACCEPTED	
	<del>-</del>	<del>-</del>	

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DWG. NO. JFL 9-23-98 мрээара

SHEET 11 OF 20 REV 102139-8

PHONE (219) 294-8000

(B

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
0218		INSTALLED ON THE PREVIOUS ASSEMBLY	м 3
0219	<del>-</del>	INSTALLED ON THE PREVIOUS ASSEMBLY	N 3
0220	103193-1	PNP 300V 500MA 50MHZ SDT-223	D 2*
0221		INSTALLED ON THE PREVIOUS ASSEMBLY	D 2
0223		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
Q224		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
0227	· · · · · · · · · · · · · · · · · · ·	INSTALLED ON THE PREVIOUS ASSEMBLY	Н 3
0228	<u> </u>	INSTALLED ON THE PREVIOUS ASSEMBLY	Н 3
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MACSD 8 AMP 400V TRIAC	£ 9
0232	102478-1	TRIAC DRIVER SBS BV THRESH	F B
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	1 8 ×
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
RS		7.68KOHM 0.10W 1% SMT 0805	D 8*
R6		9.31K 0.1W 1% CHIP 0805	D 8*
R7	A11371-2225	2.2K 1W 5% CHIP 2512	J B*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	н 9*
R10		20K 0.25W 1% CHIP 1210	Н 9*
R11	A11371~3341	330K 0.10W 5% CHIP 0805	I 9*
R12		58.1K 0.10W 1% CHIP	I 9*
R13	A11371~1Ø11	100 OHM 0.10W 5% CHIP 0805	I 10*
R1 4	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17		B.25K 0.1W 1% CHIP 0805	F 10*
R18		7.15K 0.1W 1% CHIP 0805	D 8*
R19	A11371~3313	330 OHM 0.25W 5% CHIP	I 1*
R20		57.6K 0.10W 1% CHIP 0805	I 9*
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23		392K 0.10W 1% CHIP 0805	1 9*
R24		57.6K 0.10W 1% CHIP 0805	I 9*
R25		100K 0.1W 1% CHIP 0805	и 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	
R30	A11368-10031	100K 0.1W 1% CHIP 0005	I B*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
F100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1
R101		1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*

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1719 WEST MISHAWAKA ROAD DRAWN JFL 9-23-98 PROJ.

MD39@D0

| DWG. NO. | SHEET 12 OF 20 | REV



	PARTS LIST			
HEF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*	
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R126	A11368-10011	1K 0.10W 1% CHIP 0805	м 9*	
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*	
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*	
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	м 9*	
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*	
R111		10K 1/10W 1% CHIP 0805	L 9*	
R112		19.1K 0.25W 1% MF	L 9	
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*	
R114		8.25K 0.1W 1% CHIP 0805	L 10*	
R115		88.1K 0.10W 1% CHIP	L 10*	
R118		226 OHM 0.10W 1% CHIP 0805	M 9*	
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м 9*	
R118		6.81K OHM Ø.10W 1% CHIP Ø805	M 10	
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*	
R120		90.9K 0.10W 1% CHIP 0805	M 9*	
R121	_	10K 1/10W 1% CHIP 0805	M 10	
R122		158K Ø.10W 1% CHIP 0805	N 9*	
R123		100K 0.1W 1% CHIP 0805	м 9*	
R124		158K 0.10W 1% CHIP 0805	M 9*	
R1 25		100K 0.1W 1% CHIP 0805	N 9*	
R1 26	-	392K 0.10W 1% CHIP 0805	M 9*	
R1 27	A11371-6821	8.8K 0.10W 5% CHIP 0805	N 9*	
R1 28	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R1 29	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*	
R130	ATTO/T OZIT	OPEN	0.8*	
R131		OPEN	0 8*	
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*	
R133	A11371 -7511	750 DHM 0.10W 5% CHIP	H 6*	
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7	
R135	A11371~3923	3.9K 0.25W 5% CHIP	M 7*	
R136	A11371-3323	82 OHM 0.10W 5% CHIP	M 7*	
R137	A11368~499Ø1		N B*	
			N 8*	
R138	A11371-1213	120 OHM 0.25W 5% CHIP 137 OHM 0.25W 1% CHIP	N 8*	
R139			N 8*	
R140	A11371-3333	33K 0.25W 5% CHIP 1210	+	
R141	A11371~8211	820 OHM 0.10W 5% CHIP	0.8*	
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0 8*	
R143	A11371~3333	33K 0.25W 5% CHIP 1210	N B*	
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
F145	A11371~1213	120 OHM 0.25W 5% CHIP	N 8*	
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*	
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*	
R148	A11371~1811	180 OHM 0.10W 5% CHIP	M 7*	
P150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*	
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*	
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For Reference Use Only

CROWN INTERNATIONAL INC.

DRAWN PROJ.

1718 WEST MISHAWAKA ROAD JFL 9-23-98

MD390D0

| DWG. NO. | SHEET 13 OF 20 | REV 102139-8



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R158	103199~1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R157	10/3199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	р 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	AI 1371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*
R167	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	Ø.4 OHM 1W 5% 2512 T/R	н в*
R174	A11371-4751	4.7M 0.10W 5% CHIP 0805	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176		10K 1/10W 1% CHIP 0805	G 8*
B177		10K 1/10W 1% CHIP 0805	H 8*
H178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180		392K Ø.10W 1% CHIP Ø805	G B*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F B*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185		10K 1/10W 1% CHIP 0805	G 8*
R186		100K 0.1W 1% CHIP 0805	N 10*
R187		158K 0.10W 1% CHIP 0805	M 10*
R188		158K 0.10W 1% CHIP 0805	N 10*
R189	<del></del>	100K 0.1W 1% CHIP 0805	M 10*
R190		57.6K Ø.1ØW 1% CHIP Ø8Ø5	N 6*
R191		226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11371-4751	4.7M 0.10W 5% CHIP 0805	L 9*
R193		10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 DHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201		1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209		19.1K 0.125W 1% CHIP 1206	K 9*
R210		1K 0.10W 1% CHIP 0805	J 9*
R211		10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121		7 8
11212	VIA703-12171	I COLIN B. ZOTI TA ME	7.3
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DRAWN	JFL	9-23-98	I
PRCI	MD	39000	1

1718 WEST MISHAWAKA ROAD

 
 ELKHART. INDIANA 46517
 PHONE (219) 294-8688

 DWG. NO.
 SHEET 14 OF 20 REV
 102139-8



	<del></del>	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K 0.1W 1% CHIP 0805	J 10;*
R215		68.1K 0.10W 1% CHIP	J 1Ø*
R215		226 OHM 0.10W 1% CHIP 0805	к 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218		6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	<del></del>	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921		K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K 0.10W 1% CHIP 0805	к 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226		392K 0.10W 1% CHIP 0805	K 9*
R227	A11371-6821	8.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371~6B14	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-B211	820 DHM 0.10W 5% CHIP	K 7*
R230		OPEN	L. 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K Ø.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	Н 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237		499 OHM 0.10W 1% CHIP 0805	К 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239		137 OHM 0.25W 1% CHIP	К В*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244		120 OHM 0.25W 5% CHIP	к 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	к в*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
FI247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
F124B	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R25@	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	Ø. 4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103198-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	21.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K DHM 0.10W 5% CHIP 0605	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
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1718 WEST MISHAWAKA ROAD JFL 9-23-98 DRAWN

MD390D0

PROJ.

DWG. NO. PHONE (219) 294-8000 SHEET 15 OF 20 RE 102139-8



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	€ 4*	
R268	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*	
<b>A271</b>	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*	
R272	103199~1	0.4 OHM 1W 5% 2512 T/R	н э*	
R274	A11371-4751	4.7M 0.10W 5% CHIP 0805	E 8*	
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*	
R276		10K 1/10W 1% CHIP 0805	E 8*	
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*	
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*	
R279		100K 0.1W 1% CHIP 0805	E 7*	
R280		392K 0.10W 1% CHIP 0805	E 8*	
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R282		10K 1/10W 1% CHIP 0805	D 8*	
R283		100K 0.1W 1% CHIP 0805	E 8*	
R284		20K 0.25W 1% CHIP 1210	F 9*	
R285		10K 1/10W 1% CHIP 0805	F 8*	
R286		100K 0.1W 1% CHIP 0805	L 10*	
R287		158K 0.10W 1% CHIP 0805	K 10*	
R288		158K 0.10W 1% CHIP 0805	K 10*	
R289		100K 0.1W 1% CHIP 0805	K 10*	
R290		57.6K 0.10W 1% CHIP 0805	N 3*	
R291	A11368-37621	228 OHM 0.10W 1% CHIP 0805	N 3*	
R292	A11308-22001	4.7M 0.10W 5% CHIP 0805	J 9*	
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*	
	A11366-10021	B2 OHM Ø.10W 5% CHIP	J 7*	
R294 R295			J 7*	
R300	A11371-B211 103199-1	820 OHM 0.10W 5% CHIP 0.4 OHM 1W 5% 25:2 T/R	D 6*	
			J 6*	
R301 R302	103199-1	0.4 OHM 1W 5% 2512 T/R 0.4 OHM 1W 5% 2512 T/R	K 5*	
	103199-1		M 6*	
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	<del> </del>	
R307	103199-1	0.4 OHM 1W 5% 2512 T/R 0.4 OHM 1W 5% 2512 T/R	E 6*	
R308	103199-1		F 6*	
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	16*	
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	G 7*	
R313		10K 1/10W 1% CHIP 0805		
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*	
R315	A11368~51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*	
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*	
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	<u>8                                    </u>	
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8	
R319	114074 4047	OPEN	M 10*	
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9	
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8	
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*	
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*	
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	К 3*	
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## CROWN INTERNATIONAL INC.

DRAWN LFE 9-23-98 DWG. NO.

PHONE (219) 294-8000 SHEET 16 OF 20 RE

DRAWN JFL 9-23-98
PROJ. MD390D0



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*	
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*	
R407	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*	
R4Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*	
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*	
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*	
R413		10K 1/10W 1% CHIP 0805	E 7*	
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*	
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*	
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*	
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7	
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8	
R419	A(13/1 35 <del>31</del>	OPEN	K 10*	
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1 *	
<del></del>		5.6 OHM 1W 5% CHIP 2512	<del></del>	
H421	A11371-5R65 A11371-1013	100 OHM .25W 5% 1210 SMT T/R	H 1*	
Ĥ422			J 9	
R423	A11371-0R02 A11368-10021	0.0 OHM JUMPER CHIP 1206	F 8	
R500		10K 1/10W 1% CHIP 0805	A 3	
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2	
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2	
R503	A11368-10021		B 2	
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2	
R506	A11388-10021	10K 1/10W 1% CHIP 0805	A 2	
R508		OPEN DEPARTMENT OF THE PROPERTY OF THE PROPERT	C 2	
R600		10K 1/10W 1% CHIP 0805	A 1	
R601		10K 1/10W 1% CHIP 0805	A 1	
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2	
R603		10K 1/10W 1% CHIP 0805	A 2	
R604	A11368-10021		A 1	
R606	_	10K 1/10W 1% CHIP 0805	B 2	
R607	A11371-B205	82 OHM 1W 5% CHIP 2512	A 1	
R608		OPEN	<u>C 1</u>	
<u>S1</u>	126325-1	DPDT MINI SLIDE NON-SHORT PC	L 10	
5100	102488-1	SPDT VERT SLIDE 12MM SHAFT	L 10	
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2	
TP38	C 9896-9	TEST POINT LOOP	K 1	
TP39	C 9896-9	TEST POINT LOOP	N 7	
U1	E 5095-2	POS. 15 VOLT REG.	H 10	
U1X	C 9918-1	T0220 VERT CLIP-ON HEATSINK	H 10	
⊔2	C 5096-0	NEG. 15 VOLT REG.	н 9	
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9	
ШЗ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10	
U4	C 8282-5	MC33078D DUAL LO NOISE OP AMP	<u> </u>	
U5	C 8262-5	MC3307BD DUAL LO NOISE OF AMP	N 9	
⊔100	102723-2	OPTO CELL ON-500 OHM	м 9	
U101	C 9012-3	MC33079D QUAD LO NOISE OF AMP	M 10	
⊔102	C 9038-8	COMPARATOR, QUAD LM339D 50-14	N 9	
U104	C 8038-8	COMPARATOR, QUAD LM339D SO-14	G 7	
U105	C 8262-5	MC33078D DUAL LO NOISE OF AMP	F 7	

For Reference Use Only

## CROWN INTERNATIONAL INC.

JFL 9-23-98 MD390D0

1718 WEST MISHAWAKA ROAD

DRAWN

PROJ.

| DWG. NO. | SHEET 17 OF 20 | RE



_		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
U108	H42902-9	ASM, THERMAL SENSE	N 6
U2ØØ	102723-2	OPTO CELL ON-500 OHM	кэ
U2Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM399D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D 50-14	E 7
	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U205		ASM, THERMAL SENSE	N 3
U2Ø6	H42902-9	MC33079D QUAD LO NOISE OP AMP	A 2
U500	C 9012-3		A 10
WP1		WIRE, 16 RED FAST X 5 X TERM	
WP2		WIRE. 16 BLK/WHT TAB X 5 X T	A 9
WP3		WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5		.250 FASTON, AUTO INSERTABLE	D 4
WP6		WIRE, 22 WHT 3/16X14 X FAST	1 B
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
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1718 WEST MISHAWAKA ROAD DRAWN

MD390D0

PROJ.

ISHAWAKA ROAD ELKHART, INDIANA 45517 PHONE (218) 294-8888

JFL 9-23-98 DWG. NO. SHEET 18 OF 20 RE 102139-8

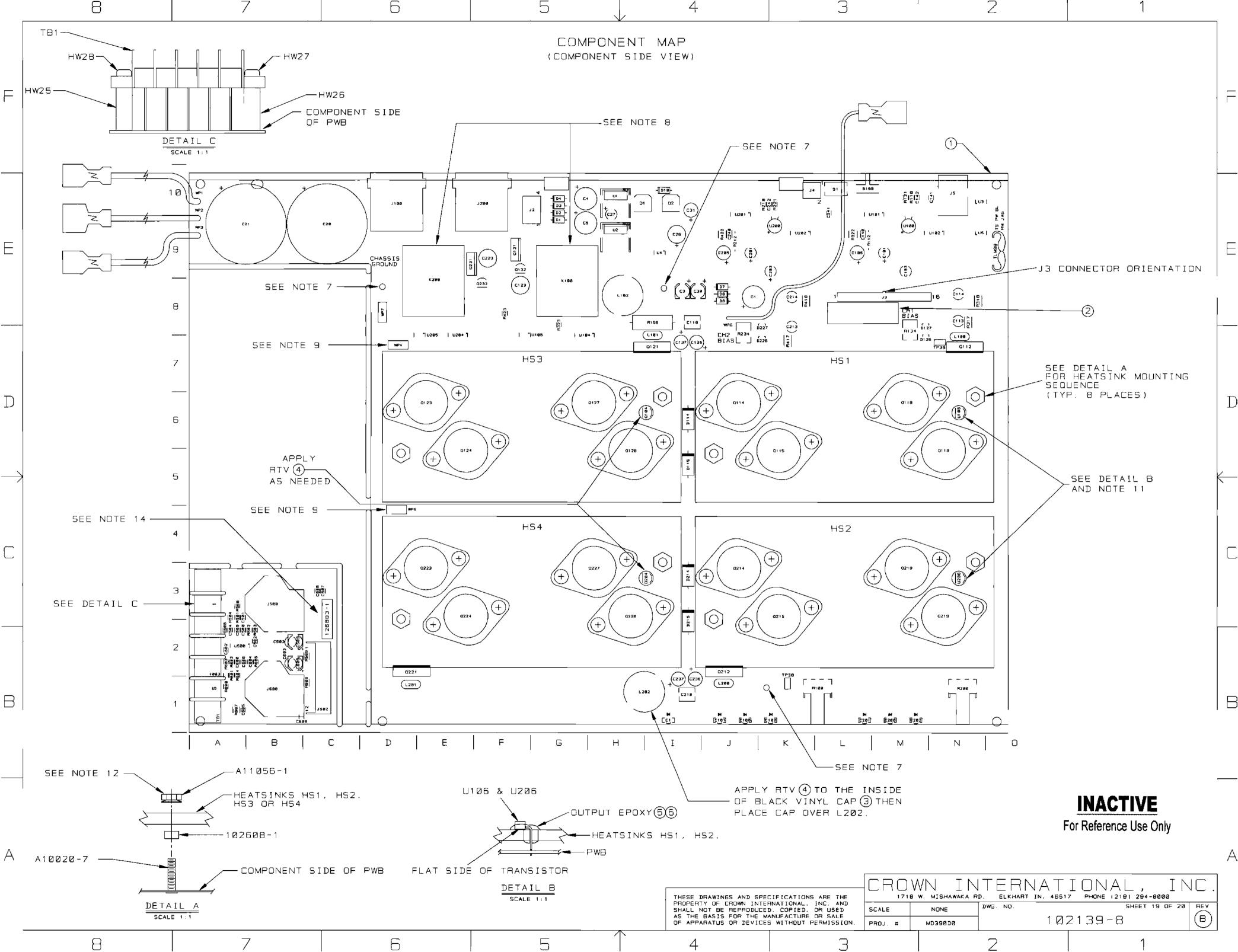
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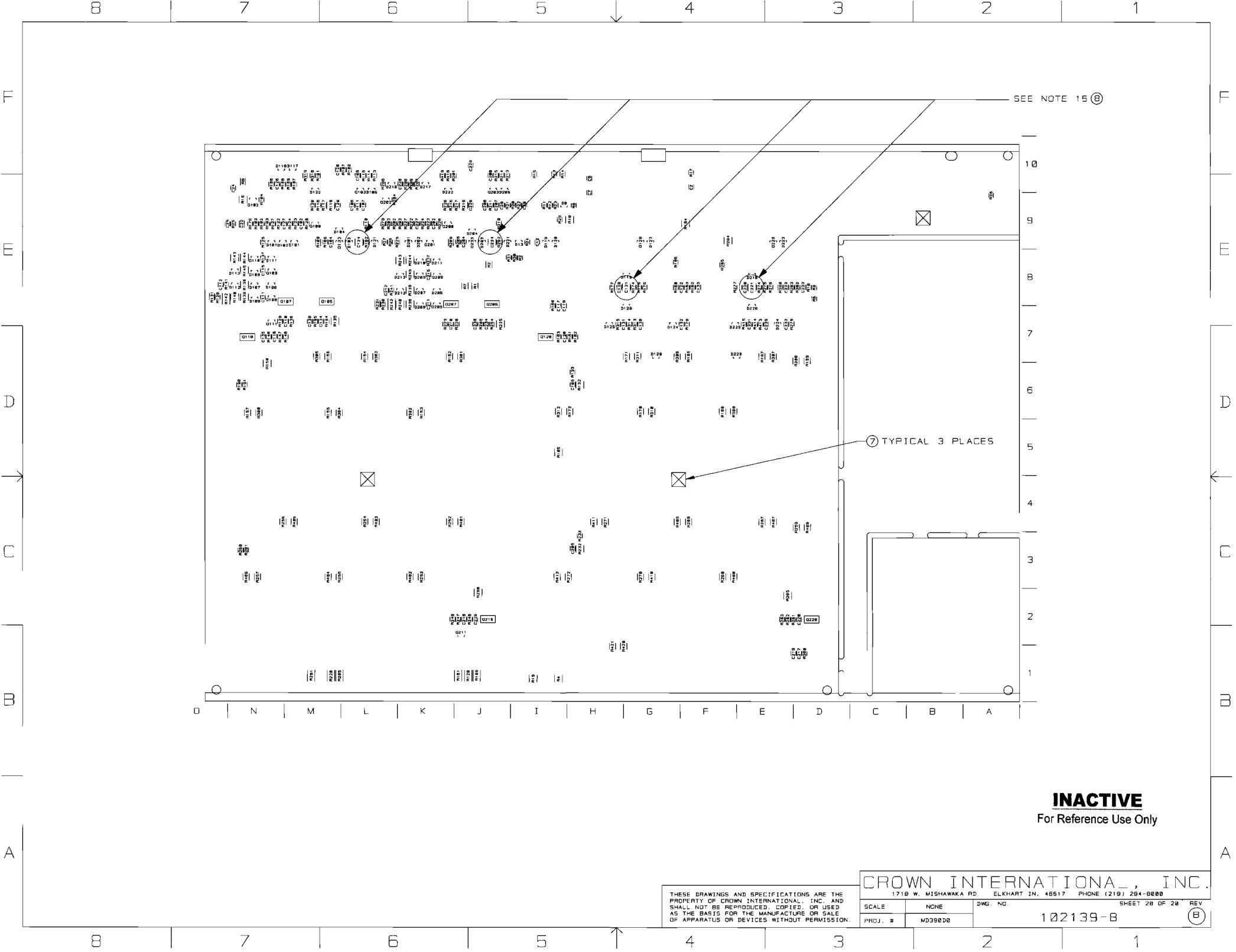
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## **Component Map**

for use with Main PWA #102139-8





	ZONE FI		DECCRIPTION .	DATE	ì	Al	PPRC	IVAL:	5
E.C.	ZUNE	HEV.	DESCRIPTION	DATE	BY	CHK	СМ	듄돈	PE
		٨	INITIAL RELEASE TO PRODUCTION(LEVEL I)	12-22-98	J AW	٦w			T5
9960042		В	C606.C607.C608 WERE 2.7 OHM. HW27.HW28 WERE 103415-70608. WP1 WAS A11378-A050S. WP3 WAS A11378-C050S.	01-28-99	J AW	Kw	S		<b>72</b>

#### NOTES:

- SCHEMATIC DRAWING NUMBER 102141. 1.
- PWB PART NUMBER 102138-9. 2.
- THE PWA SHALL MEET THE IPC-A-810\_ CLASS 2 STANDARDS. Э.
- ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES
- THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING. THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223 TO WP4 AND WP5 RESPECTIVELY.
- 18. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118, BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11856-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
- 128. POST-WAYE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.

  13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-2 ON COMPONENT SIDE.



#### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

#### INACTIVE

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			ROV	1I NV	VT	E	RNAT	IONA	L INC	
PRINT	rs to	1718 WEST	MISHAWA	KA ROAD	ELKH	ART,	INDIANA 48	517	PHONE (219) 29	4-8900
K		PWA, MAIN/INPUT CE1000 TOL. UNLESS SPECIFIE X.XX - ± 8.82 X.XXX - ± 8.82 DRILLS - ± 8.89					0.020 0.010			
		DRAWN	WAL	12-22-98	A	PPRO	VED BY:	DO NOT SCALE PRINT		
		CHECKED	٦W	12-23-98	MË			SUPERSEDE	5	
		SCALE	4	NONE	EE			E.C.		
		PROJ #	MD	39000	PE	TS	12-23-98	DWG. NO.	SHEET 1 OF 20	REV
		FILENAME: 102139-9_B.PCB NEXT ASM: 102139-9			139-9	(B)				

	PARTS LIS	Τ	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112.R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206.
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108.R111,R121,
			R176.R177.R182.R185.R193.
	<u>-</u>		R196, R204, R211, R221, R276,
			R277.R282.R285.R293.R296.
			R313,R413,R500,R501,R502,
			R503,R504,R506,R600,R601.
			R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25. R30. R31. R123. R125. R179.
			R183,R186,R189,R223,R225,
			R279.R283.R286.R289
A11368-12121	12.1K CHM 0.10W 1% CHIP 0805	1	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139, R239
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137.R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
			R224.R287.R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209
A11368-20021	20K 0.10W 1% CHIP 0805	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K Ø.10W 1% CHIP Ø805	6	R22, R23, R102, R180, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103. R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126 R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113, R175, R197, R213, R275.
			R297, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118, R218
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM Ø.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17.R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120.R178.R220.R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPD 0805 T/R	6	C500.C501.C502.C600.C601.C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107.C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142.C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241
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ISHAWAKA ROAD ELKHART, INDIANA 48517

JAW 12/21/98 DWG. NO. DRAWN PROJ. мрзяоро

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8080 SHEET 2 OF 20 RE



	PARTS LIS	τ	
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
A11371-ØRØ2	0.0 OHM JUMPER CHIP 1206		R199, R299, R323, R423
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14.R15.R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R9
A11371-1213	120 OHM 0.25W 5% CHIP	6	R13B, R144, R145, R23B, R244, R245
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, R160, R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3. R11. R26. R117. R217. R314.
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162, R262
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420.R421
A11371-6814	680 OHM 0.50W 5% CHIP	- 6	R105, R128, R181, R205, R228, R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R2B.R133.R233
A11371-8201	82 DHM 0.10W 5% CHIP	4	R136, R194, R236, R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	5	R129. R141. R195, R229, R241. R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109, C111, C209, C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243
A11427-104K2	Ø.1 MF 50V 10% 0805	33	C2.C6.C7.C12.C24.C25.C28.C29.
			C115,C122,C126,C127,C128,
			C129.C130.C131.C132.C133.
			C139.C215.C222.C226.C227.
			C228, C229, C230, C231, C232,
			C233. C239. C505. C506. C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10
C 3510-2	CHOKE. 470UH 10% AXIAL	4	L100.L101,L200,L201
C 3549-0	DIODE ZENER, 10V. 1N52408	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4.C5
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48617 PHONE (219) 284-8088
DRAWN JAW 12/21/98 DWG. NO. SHEET 3 OF 28 RE JAW 12/21/98 DWG. NO. MD390D0

PROJ.



	PARTS LIS	7	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	
C 5096-0	NEG. 15 VOLT REG.	1	⊔2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240
C 7325-1	2P 2 POS. PE SLIDE SW.	1	S2
C 744B-1	MMBT3904 CHIP NPN	6	0100,0101,0129,0200,0201,0229
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4, U5, U105, U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101.U201.U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102, U104, U202, U204
C 9157-6	100UF 16V 20% NP ELEC HAD T/	2	C123. C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	0104.0204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,
			D105.D108.D107.D108.D109.
	<u></u>		D110.D111.D112.D113.D116.
(		_	D117, D118, D119, D120, D121,
			D122, D123, D124, D125, D126,
			D127, D128, D129, D130, D201,
			D202.D203.D204.D205.D206.
- <del>-</del>			D207, D208, D209, D210, D211,
			D212, D213, D216, D217, D218,
			D221, D222, D223, D224, D225,
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102, Q109, Q111, Q202, Q209, Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105.C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20.C21
H42902-9	ASM, THERMAL SENSE	2	U106.U206
101016-1	LOL. BARCODE. , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J 4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	12
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104.C120.C135.C204.C220.C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106.C206.C504.C604
102438-B20K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101.C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214
<del></del>	INDUCTOR, 2.75UH 11A RADIAL	2	L102, L202
102470-1	TIADOCION, E./JON LIN NADINE I		
102470-1	HDR, 12POS 2.5MM RT ANG KEYE	1	J502

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ELKHART, INDIANA 48517 JAW 12/21/98 DWG. NO. DRAWN PROJ. MD390D0

1719 WEST MISHAWAKA ROAD

PHONE (219) 294-9898 SHEET 4 OF 20 RE 102139-9



	PARTS LIS	Т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1.E101.E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132.Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	01.02.03
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA 50T-23	2	Q103.Q203
102486-1	OPTO BJT NPN SOIC-8 CTR #100	1	u3
102488-1	SPDT HORIZ SLIDE	1	51
102569-3	HS ASM, T1 ISOLATED CHt, , ,	1	HS3
102570-3	HS ASM, T1 ISOLATED CH2	1	HS4
102571-3	HS ASM. TI NON-ISOLATED CHI,	1	HS1
102572-3	HS ASM, T1 NON-ISOLATED CH2.	1	HS2
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100.R200
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,
			HWB
102723-2	OPTO CELL ON-500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244
103192-1	NPN 300V 500MA 50MHZ 50T-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	0105.0120.0205.0220
103199-1	Ø.4 OHM 1W 5% 2512 T/R	38	R1, R7, R152, R153, R156, R157,
			R159, R167, R168, R171, R172,
			R252, R253, R256, R257, R259,
			R267, R268, R271, R272, R300,
			R301,R302,R305,R306,R307,
			R308, R311, R312, R400, R401,
			R402, R405, R406, R407, R408,
			R411.R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE. 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	2	HW27, HW28
125106-1	MACSD 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	F142, R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	Ø	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100.K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600

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ELKHART, INDIANA 48517 1718 WEST MISHAWAKA ROAD JAW 12/21/98 DWG. NO. DRAWN PROJ. MD390D0

PHONE (219) 294-8888 SHEET 5 OF 20 RE



		PARTS LIST	_
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	Ø.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	н 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	89
C22	C 7091-9	Ø.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0905	0 9*
C26	C 8576-8	100 MF 35V 10% ELEC	19
C27	C 5362-6	2.2 MF 50V VERT	H 19
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	1 9*
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C1Ø1	102465-1	.47UF 50V 20% RADIAL T/R	М 9
C102	C 6802-0	.47 MF 50V AX CERM	м 9
□103	102467-1	22MF 25V 20% RAD T/R	М 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
E106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	0 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115		0.1 MF 50V 10% 0805	N B*
C115		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	18
C119		4700PF 50V 10% X7R 0805	I 7*
C120	<del> </del>	100PF 200V 10% NPO 0805	I 7*
C121	C10198-1	2.2MF 50V 20% RAD T/R	G B
C122		0.1 MF 50V 10% 0805	F 8*
C123	£ 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	<del></del>	0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	м 9*
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DRAWN PROJ. MD39@D@

1718 WEST MISHAWAKA ROAD

JAW 12/21/98 DWG. NO. PHONE (219) 294-8080 SHEET 6 OF 28 FE 102139-9



	PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.			
C130	A11427-104K2	0.1 MF 50V 10% 0805	н 8*			
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*			
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*			
C133		0.1 MF 50V 10% 0805	F 8*			
C134		0.001UF 50V 5% NPO MLC 0805 T/	м 7*			
C135		100PF 200V 10% NPO 0805	N 7*			
C136	103210-1	2.2UF 160V RADIAL T/R	I 7			
C137	103210-1	2.2UF 160V RADIAL T/R	I 7			
C13B		82PF 200V 10% NPO 0805	M 7*			
C139		0.1 MF 50V 10% 0805	G 7*			
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9			
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10			
C142		33PF 50V 5% NPO MLC 0005	M 10			
C143		0.01MF 50V 5% X7R 1206	м 9*			
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*			
C201		.47UF 50V 20% RADIAL T/R	J 9			
C202	C 6802-0	.47 MF 50V AX CERM	K 9			
C203	102467-1	22MF 25V 20% RAD T/R	K 9			
C2Ø4		100PF 200V 10% NPO 0805	J 9*			
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9			
C206		56PF 200V 10% NPO 0805	J 9*			
C207		27PF 50V 10% NPO 0805 T/R	J 9*			
C208		82PF 200V 10% NPO 0805	J 101*			
C209		0.01MF 50V 10% CHIP 0805	н э*			
C21Ø	***	470PF 50V 10% NPO 0805 T/R	K 7*			
C211		0.01MF 50V 10% CHIP 0805	K 7*			
C212		0.012 MF 50V 10% CHIP	L 8*			
C213	102468-1	47UF 10V 20% NP RAD T/R	K B			
C214	102468-1	47UF 10V 20% NP RAD T/R	K B			
C215		0.1 MF 50V 10% 0805	K 8*			
C216		4700PF 50V 10% X7R 0805	J 2*			
C217		2700PF 50V 10% CHIP 0805	D 1*			
C218		0.1 MF 250V 5% MTL POLY	I 1			
C219		4700PF 50V 10% X7R 0805	E 1*			
C220		100PF 200V 10% NPO 0805	D 2*			
C221		2.2MF 50V 20% RAD T/R	E 8			
C222		0.1 MF 50V 10% 0805	E 8*			
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9			
C224	C10196-1	2.2MF 50V 20% RAD T/R	J g			
C226		0.1 MF 50V 10% 0805	K 10*			
C227	<del> </del>	0.1 MF 50V 10% 0805	K 9*			
C22B		0.1 MF 50V 10% 0805	J 10*			
C229		0.1 MF 50V 10% 0805	J 9*			
C230		0.1 MF 50V 10% 0805	E 8*			
C231		0.1 MF 50V 10% 0805	E 7*			
C232		0.1 MF 50V 10% 0805	E 7*			
C233		0.1 MF 50V 10% 0805	D 8*			
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN LAW 12/21/98 DWG. NO. MD390D0

PROJ.

PHONE (219) 294-8988 SHEET 7 OF 20 RE



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*	
C235		100PF 200V 10% NPO 0805	J 2*	
C236	103210-1	2.2UF 150V RADIAL T/R	I 1	
C237	103210-1	2.2UF 160V RADIAL T/R	I 1	
C238		82PF 200V 10% NPO 0805	J 7*	
C239		0.1 MF 50V 10% 0805	E 7*	
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	1 8	
C241		470PF 50V 10% NPO 0805 T/R	L 10	
C242		33PF 50V 5% NPO MLC 0805	K 10	
C243		0.01MF 50V 5% X7R 1206	K 9*	
C244	103191-1	0.47UF 25U 1210 20% 50V	E 7*	
C500		12PF 50V 10% NPO 0805 T/R	A 2	
C501		12PF 50V 10% NPO 0805 T/R	A 2	
C502		12PF 50V 10% NPO 0805 T/R	B 2	
C503	102467-1	22MF 25V 20% RAD T/R	B 2	
C504		56PF 200V 10% NPO 0805	A 2	
C505		0.1 MF 50V 10% 0805	A 2	
C506		0.1 MF 50V 10% 0805	A 2	
C509	ALLIEF TOTAL	OPEN	B 2	
C600	A11369-170K2	12PF 50V 10% NPD 0805 T/R	A 2	
C601		12PF 50V 10% NPO 0805 T/R	A 1	
C602		12PF 50V 10% NPO 0805 T/R	A 2	
C603	102467-1	22MF 25V 20% RAD T/R	8 2	
C604		56PF 200V 10% NPO 0805	8 2	
C605		0.1 MF 50V 10% 0805	A 1	
C606	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3	
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3	
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1	
C609	ATTONI-TOM	OPEN	B 2	
D1	C 2851-1	1N4004 SILICON RECT.	G 9	
D2	C 2851-1	1N4004 SILICON RECT.	G 10	
D3	C 2851-1	1N4004 SILICON RECT.	G 10	
D4	C 2851-1	1N4004 SILICON RECT.	G 10	
D6 D7	C 2851-1 C 2851-1	1N4004 SILICON RECT.	) B	
DB	C 3549-0	DIODE ZENER, 10V, 1N5240B	7 8	
	C 9283-0		I 9*	
D9 D10	C 2851-1	DIODE, 1N914/1N4148 SOT-23 SMT 1N4004 SILICON RECT.	Î 10	
	C 9283-0		I 9*	
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*	
		DIODE, 1N914/1N4148 SOT-23 SMT		
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*	
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*	
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*	
D105	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 9*	
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*	
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*	
D108	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N B*	
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DRAWN JAW 12/21/98 DV PROJ. MD390D0

ISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888

JAW 12/21/98 DWG. NO. SHEET 8 OF 20 RE

1021<u>39-9</u>



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	IБ
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 1Ø*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	G 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE: 1NS14/1N4148 SOT-23 SMT	H 7*
D125	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M B
D128	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	G 7*
	C 9283-0		G 6*
D129	<del>                                     </del>	DIODE, 1N914/1N4148 SOT-23 SMT	<u> </u>
D130	C 9283-0 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	<del>                                     </del>	DIODE, 1N914/1N4148 SDT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K B*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 6*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	1 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D21B	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	<u>C</u> 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	KB
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DRAWN MD390D0 PROJ.

1718 WEST MISHAWAKA ROAD

ISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (218) 294-8888

JAW 12/21/98 DWG. NO. SHEET 9 OF 20 RE 102139-9



PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	Ė 7*
D229	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E1@1	102476-1	LED. SMT R/A GREEN	J 1
E102	102477-1	LED. SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E2Ø1	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H1 1		OPEN	K 1
H1 4		OPEN	I B
H18		OPEN	DB
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1.	
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2.	
нѕэ	102569-3	HS ASM, T1 ISOLATED CH1	1
HS4	102570-3	HS ASM. T1 ISOLATED CH2	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
ЕWH	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	8 4
HWB	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HWI 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 8	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW2 1	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28		SCREW.6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	HDR, 16POS .100 CTR SGL ROW	мв
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK. 6P4 COND MODULAR R/A	<u> </u>
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JAW 12/21/98 DWG. ND. DRAWN LOR9 MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48517 PHONE (218) 294-9888 B DWG, NO. SHEET 10 OF 20 RE 102139-9



	· · ·	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
J 100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J5 <b>0</b> 2	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
1600	126929-1	1/4" TRS/XLR COMBO PCB VERT	8 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	£ 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
L200	C 351Ø-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWA MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0160	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA SOT-23	L 9*
0184	C 9252-5	2N3904 40V NPN TRANSISTOR	16
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ 50T-223	M 7*
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0103	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0120	103193-1	PNP 300V 500MA 50MHZ SQT-223	I 7*
0129	C 7448-1	MMBT3904 CHIP NPN	G 9*
0131	125106-1	MACED 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
0133	102480-1	FET. N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q2Ø4	C 9252-5	2N3904 40V NPN TRANSISTOR	1 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q2Ø5	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
220/	183132 (	15 15 3601 360MA 360MA 201 223	N / "
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#### INC. CROWN INTERNATIONAL

JAW 12/21/98 DWG. NO. MD390D0

1718 WEST MISHAWAKA ROAD

DRAWN

PROJ.

ELKHART, INDIANA 46517 PHONE (219) 284-8888 SHEET 11 OF 20



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
Q2Ø8	102481-1	NPN 25V LOW NOISE SDT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	К 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS BV THRESH	F 8
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	 J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4		330 OHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM Ø.10W 1% CHIP Ø805	D 8*
R6		9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
RB		1K 0.125W 5% CHIP 1206	N 10*
R9		10K 1/10W 1% CHIP 0805	н 9*
R10		20K 0.25W 1% CHIP 1210	H 9*
R1 1	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12		68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R1 4	A11371-0821	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17		8.25K 0.1W 1% CHIP 0805	F 12*
R18		7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø		57.6K 0.10W 1% CHIP 0805	1 9*
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22		392K 0.10W 1% CHIP 0805	I 9*
R23		392K 0.10W 1% CHIP 0805	I 9*
R24		57.6K 0.10W 1% CHIP 0805	1 9*
R25		100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
1120	711371 7311	7 36 OCHWI B. 164 37 CATA	
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#### INC. CROWN INTERNATIONAL

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-88800
TIDAUNA | IAW | 12/21/98 | DWG. NO. SHEET 12 OF 20 | REV JAW 12/21/98 DWG. NO. PROJ. MD390D0



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8∗
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	18
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	1.8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103		499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	м 9*
R107	·	10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	м 9*
R110	<del></del>	1K 0.10W 1% CHIP 0005	L 9*
R111	<del>) </del>	10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K 0.25W 1% MF	L 9
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K 0.1W 1% CHIP 0805	L 10*
R115		68.1K 0.10W 1% CHIP	L 10*
R116		226 OHM 0.10W 1% CHIP 0805	м 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	<b>-</b>	6.81K CHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	м 9*
R120		90.9K 0.10W 1% CHIP 0805	M 9*
R121		10K 1/10W 1% CHIP 0805	M 10
R122	•	15BK 0.10W 1% CHIP 0805	N 9*
R123		100K 0.1W 1% CHIP 0805	M 9*
R124	+	158K 0.10W 1% CHIP 0805	* e M
R125		100K 0.1W 1% CHIP 0805	N 9*
R126		49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OPEN	0.8*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	Н Б*
R133	A11371 -7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*
R137	<del></del>	150 OHM 0.125W 1% CHIP	N 8*
R13B	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703		N 8*
R140	A11366-13763	137 OHM 0.25W 1% CHIP 33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-3333	820 OHM 0.10W 5% CHIP	0 8*
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AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION.	PROJ.	мрзяере 102139-9 <b>(</b>	

	1 =	PARTS LIST	T
REF DES	<del></del>	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	08*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8 *
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8 *
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	м 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	<u> </u>
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	М 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R181	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1B11	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	66*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	н 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R17 <u>8</u>	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
Ř177	A11368-10021	10K 1 <u>/1</u> 0W 1% CHIP 0805	н 8*
<u> 178 </u>	A11368-90921	90.9K 0.10W 1% CHIP 0805	N_9*
R179	A11368-10031	10 <u>0K 0</u> .1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10#
R188	A11358-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10#
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R1 <u>9</u> 1	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11369-10021	10K 1/10W 1% CHIP 0805	И 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	М 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0905	м 9*
R197		5.11K OHM 0.10W 1% CHIP 0805	M 10
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DRAWN JAW 12/21/98 DWG. NO. PROJ. MD390D0 1

1718 WEST MISHAWAKA ROAD

ELKHART. INDIANA 48517 PHONE (219) 294-9892 B DWG. NO. SHEET 14 OF 20 RE



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HQRIZ	N 1
R2Ø1	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
F1202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
H2Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
F12Ø9		19.1K 0.125W 1% CHIP 1206	K 9*
H210		1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K Ø.25W 1% MF	JS
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215		68.1K 0.10W 1% CHIP	J 1Ø*
R216		226 OHM 0.10W 1% CHIP 0805	к 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218		6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K 0.10W 1% CHIP 0805	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226		49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230	, <del></del>	OPEN	L 7*
Ħ231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	н з*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н з*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM Ø.10W 5% CHIP	J 7*
R237	A11368-15002		K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239		137 OHM 0.25W 1% CHIP	K 8*
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	13K OHM 0.10W 5% CHIP 0805	J 2*
11410	ALIAZITAGAL	TOK CHIM B. 188 SW CHII. 8883	J Z"
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN JAW 12/21/98 DWG. NO. SHEET 15 OF 20 REV JAW 12/21/98 DWG. NO. PROJ. MD390D8



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
FI247		100 OHM 0.10W 5% CHIP 0805	J 2*	
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*	
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*	
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*	
R253	103199-1	2.4 OHM 1W 5% 2512 T/R	к э*	
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*	
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	№ Э*	
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	р э*	
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*	
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*	
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*	
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*	
R265	A11371-5R63	5.6 0.25W 5% CHIP	£ 2*	
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*	
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*	
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*	
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	Н 3*	
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*	
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*	
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*	
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*	
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*	
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*	
R280	A11368-39231	392K 0.10W 1% CHIP 0805	Ë B*	
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*	
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*	
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*	
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8 *	
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*	
R2 <u>B7</u>	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*	
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*	
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*	
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*	
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	*E N	
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 8*	
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*	
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*	
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*	
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*	
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10	
R298		OPEN	K 10	
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*	
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*	
R3Ø1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*	
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*	
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	м 6*	

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ISMAWAKA ROAD ELKHART, INDIANA 48517
JAW 12/21/98 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8888 SHEET 16 OF 20 RE



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
8306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R3Ø7	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*	
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*	
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*	
R313		10K 1/10W 1% CHIP 0805	G 7*	
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*	
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*	
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*	
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B	
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B	
R319	111737. 335.	OPEN	M 10*	
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9	
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8	
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*	
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*	
R402	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 3*	
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*	
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	*E N	
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*	
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*	
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*	
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*	
			E 7*	
R413		10K 1/10W 1% CHIP 0805	E 7*	
R414	A11371-3341	330K 0.10W 5% CHIP 0805		
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0905	E 7*	
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*	
	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7	
R41B	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8	
R419 R420	A11371-5R65	OPEN 5.6 OHM 1W 5% CHIP 2512	K 10*	
R421		5.6 OHM 1W 5% CHIP 2512		
	A11371-5R65		H 1*	
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9	
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	FB	
R500		10K 1/10W 1% CHIP 0805	A 3	
R501		10K 1/10W 1% CHIP 0805	A 2	
R502		10K 1/10W 1% CHIP 0805	B 2	
R503		10K 1/10W 1% CHIP 0805	B 2	
R504	<u> </u>	10K 1/10W 1% CHIP 0805	A 2	
R508	A11368-10021	10K 1/10W 1% CHIP 0805	A 2	
R508	444366 48664	OPEN	C 2	
R600		10K 1/10W 1% CHIP 0805	A 1	
R601		10K 1/10W 1% CHIP 0805	A 1	
R602	_	10K 1/10W 1% CHIP 0805	A 2	
R603		10K 1/10W 1% CHIP 0805	A 2	
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1	
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2	

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ISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888

JAW 12/21/98 DWG, NO. SHEET 17 OF 20 RE DRAWN PROJ. MD398D8

1718 WEST MISHAWAKA ROAD



PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP	LOC.		
R6Ø7	A11371-8205	82 OHM 1W 5% CHIP 2512		A 1		
R6Ø8		OPEN		C 1		
S1	102488-1	SPDT HORIZ SLIDE		L 10		
52	C 7325-1	2P 2 POS. PC SLIDE SW.		L, 10		
TB1	102475-1	BLOCK, 5 POS TERMINAL		A 2		
TP38	C 9896-9	TEST POINT LOOP		K 1		
TP39	C 9896-9	TEST POINT LOOP		N 7		
Ū1	C 5095-2	POS. 15 VOLT REG.		H 10		
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		H 10		
⊔2	C 5096-0	NEG. 15 VOLT REG.		н 9		
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		Н 9		
UЭ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%		N 10		
<b>⊔</b> 4	C 8262-5	MC33078D DUAL LO NOISE OP AMP		I 9		
บร	C 8262-5	MC33078D DUAL LO NOISE OP AMP		N 9		
U100	102723-2	OPTO CELL ON-500 OHM		м 9		
U1@1	C 9012-3	MC33079D QUAD LO NOISE OP AMP		M 10		
U102	£ 9038-8	COMPARATOR, QUAD LM339D SQ-14		N 9		
U1Ø4	C 9038-8	COMPARATOR, QUAD LM339D SD-14		G 7		
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP		F 7		
U1Ø6	H42902-9	ASM, THERMAL SENSE	-	N 6	$\neg \neg$	
U200	102723-2	OPTO CELL ON-500 OHM		к 9	$\overline{}$	
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP		J 10		
U202	C 9038-8	COMPARATOR, QUAD LM339D 50-14		К 9		
U2Ø4	C 9038-8	COMPARATOR, QUAD LM339D 50-14		E 7	-	
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7		
U206	H42902-9	ASM. THERMAL SENSE		N 3		
U500	C 9012-3	MC33079D QUAD LO NOISE OF AMP		A 2		
WP1		WIRE, 16 RED FAST X 5 X TERM		A 10		
WP2	103331-N050R			A 9		
WP3		WIRE. 16 BLU FAST X 5 X TERM		A 9		
WP4	101031-1	.250 FASTON, AUTO INSERTABLE		D 7		
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4		
wP6		WIRE, 22 WHT 3/16X14 X FAST		J 8		
WP7	101031-1	.250 FASTON, AUTO INSERTABLE		DВ		
Z1		OPEN		E 9	$\overline{}$	
1	102138-9		SEE	COMP	MAP	
2	101016-1			COMP		
3	125242-1			COMP		
4	126825-1	SILICONE, CLEAR 30Z SYRINGE		COMP		
5	125482-1		_	COMP		
6	125483-1			COMP		
7	103180-1		<del></del>	COMP		
<del>                                     </del>		DOME TO BIT FACE DEK WADII			141671	
<del>-</del>						
					$\longrightarrow$	
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#### INC. CROWN INTERNATIONAL JAW 12/21/98 DWG. NO. SHEET 18 OF 20 RE

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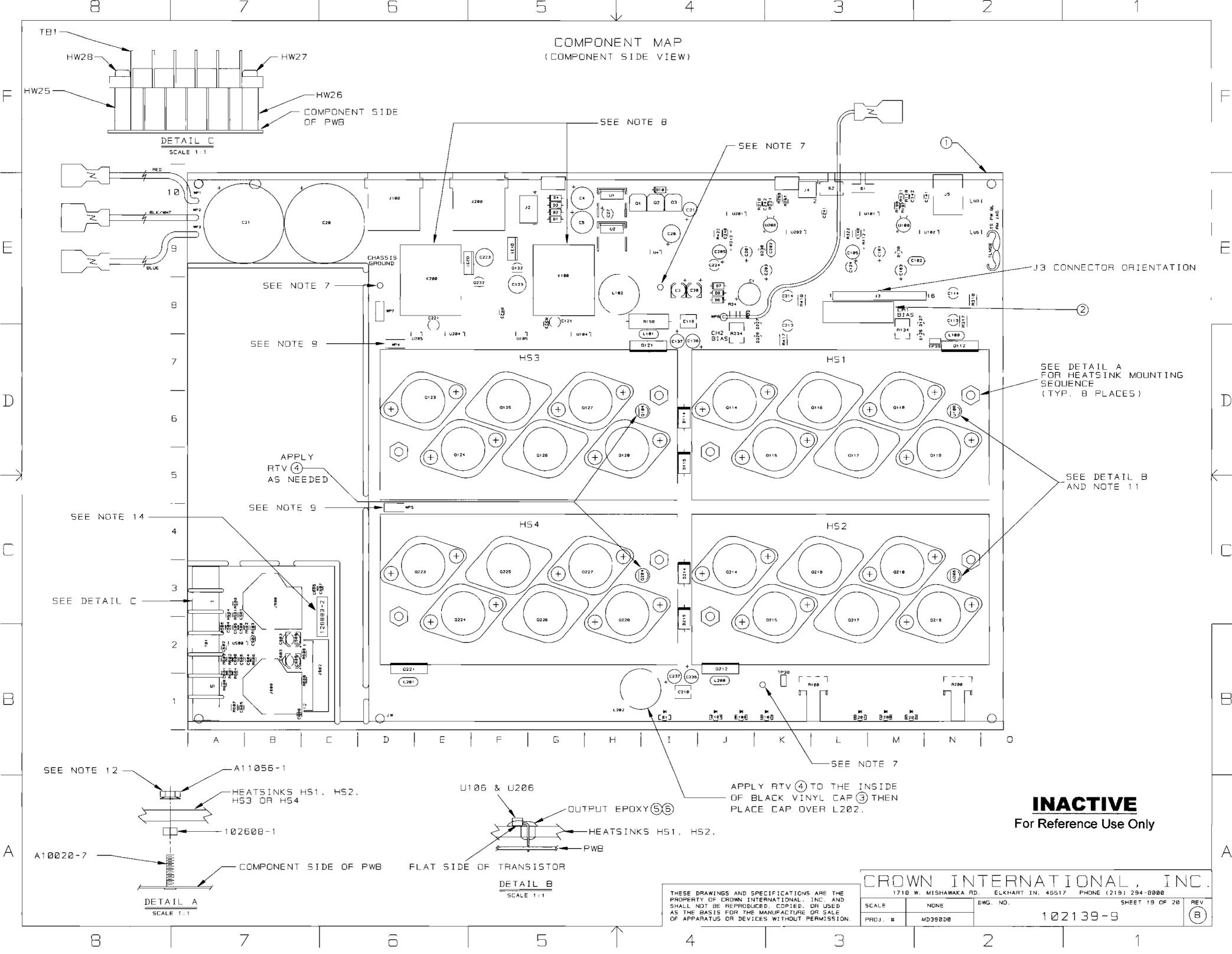
1718 WEST MISHAWAKA ROAD DRAWN PROJ. MD390D0

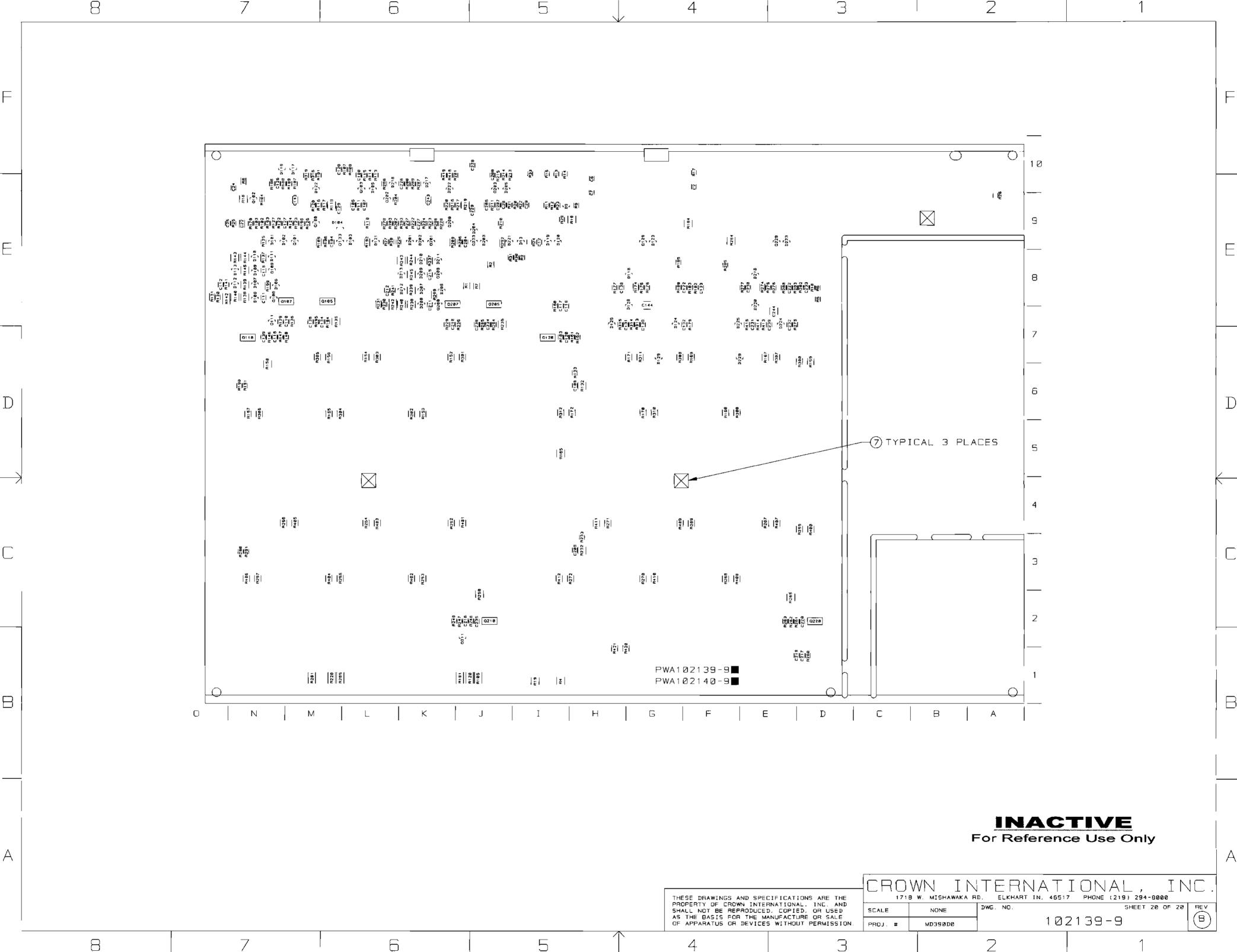




## **Component Map**

for use with Main PWA #102139-9





E.C.	ZONE	REV.	DESCRIPTION	DATE	₽Y			VALS	
		_	<u>-</u>	03-26-99		CHK Tau	کی	_2.2 <b>4</b>	902
			101110001101	20 20 30		<i>J</i> ~~	2	۳	70
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#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102141.
- 2. PW9 PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-618\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
   ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE DLD PWA NUMBERS ON THE BOTTOM.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPDXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE

    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR

    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
- 11E, HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11856-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN DN COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-2 ON COMPONENT SIDE.



### CALTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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		l Ci	RQV	VN II	١T	$\Box$	TANF	IONA	AL INC	).
PRIN	ITS TO	1718 WEST	MISHAWA	KA ROAD	ELKH	IART.	INDIANA 46	517	PHONE (219) 29	14-8999
K	_	Ē	WA,	MAIN/	ΙNΙ	PUT	CE12	100	TOL.UNLESS SPEC X.XX = ± X.XXX = ± DRILLS = ±	0.020 0.010
		DRAWN	KLW	03-26-99	Ai	PPRO	VED BY:	DO NO	T SCALE PRIN	τ
		CHECKED	Jaw	03 26-99	ME	C>4	3-30-99	SUPERSED	ES	
		SCALE	^	IONE	E€	4/4	MA	E.C.		
		PAOJ #	₩D	390D0	PE	B	3-30-99			HEV
		FILENAME:	102139-	11_A_B1.PC8	NEX	CT AS	iM;	102	139-11	

	PARTS LIS	Т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15.HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17.HW18,HW19.HW20.HW21.
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101.R106.R110.R201.R205.
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108,R111,R121,
			R176,R177,R182,R185,R193,
			R196.R204.R211.R221.R276.
			R277.R282.R285.R293.R296.
			R313,R413,R500,R501,R502,
			R503, R504, R506, R600, R601,
			R602,R603,R604,R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25.R30.R31.R123.R125.R179,
·	-		R183, R186, R189, R223, R225,
<del></del>			R279, R283, R286, R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
	137 OHM Ø.25W 1% CHIP	2	R139, R239
	150 OHM 0.125W 1% CHIP	2	R137, R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122.R124.R187.R188.R222.
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.10W 1% CHIP 0805	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R104, R204
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291
A11368-39231	392K Ø.10W 1% CHIP 0805	6	R22, R23, R102, R160, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113,R175,R197,R213,R275,
			R297, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20.R24.R190.R290
A11368-60432			R174,R192,R274,R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118,R218
A11368-88121	68.1K Ø.1ØW 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K Ø.1W 1% CHIP Ø805	3	R17, R114, R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241
77.1200 -77.182	1, 2, 1 24 10, 14 0 8000 1/h	<del>                                     </del>	
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 1718 WEST MISHAWAKA ROAD
 ELKHART. INDIANA 48517

 DRAWN
 KLW
 03-26-99
 DWG. NO.

 PROJ.
 MD39000
 1 0 2 1 3

8517 PHONE (219) 294-8888 SHEET 2 OF 20 RE



	PARTS LIST						
C. P. N.	DESCRIPTION	OTY	REFERENCE DESIGNATION				
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199.R299,R323.R423				
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33				
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247				
A11371-1013	100 OHM , 25W 5% 1210 SMT T/R	2	R322.8422				
A11371-1022	1K 0.125W 5% CHIP 1206	1	88				
A11371-1213	120 DHM 0.25W 5% CHIP	8	R138, R144, R145, R238, R244, R245				
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261				
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, A160, R260				
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263				
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232				
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2				
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4.R19				
A11371-3333	33K 0.25W 5% CHIP 1210	8	R119, R140, R143, R219, R240, R243				
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,				
		<u> </u>	R414				
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235				
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418				
A11371-4701	47 OHM Ø.1ØW 5% CHIP	2	R162, R262				
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34				
A11371~5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265				
A11371~5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421				
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281				
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227				
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28.R133.R233				
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294				
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607				
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295				
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1				
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3				
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109, C111, C209, C211				
A11427~103K5	0.01MF 50V 5% X7R 1206	2	C143, C243				
A11427-104K2	0.1 MF 50V 10% 0805	33	C2.C6,C7.C12,C24,C25,C29,C29,				
ATTIET TETRE	2.1 W. 384 187 8683	33	C115, C122, C126, C127, C128.				
			C129, C130, C131, C132, C133,				
			C139, C215, C222, C226, C227, C228, C229, C230, C231, C232,				
			C233, C239, C505, C506, C605				
A11427-12242	0.012 MF 50V 10% CHIP	7					
A11427-123K2		2	C112, C212				
A11427-272K2	2700PF 50V 10% CHIP 0905	2	C117, C217				
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219				
C 2851-1	1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10				
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201				
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	DB S24				
C 3679-5	33UF 50V 20% VERT ELECT	1	C31				
C 4477~3	470 MF 35V VERT	2	C4,C5				

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8000

 DRAWN
 KLW 03-26-89
 DWG. NO.
 SHEET 3 OF 20
 RE
 PROJ. MD390D0



	PARTS LIST					
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
C 5095-2	POS. 15 VOLT REG.	1	U1			
C 5096-0	NEG. 15 VOLT REG.	1	U2			
C 5362-6	2.2 MF 50V VERT	1	C27			
C 6802-0	.47 MF 5ØV AX CERM	2	C102, C202			
C 7091-9	0.33 MF 50V CHIP 1206	3	C22.C140.C240			
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52			
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229			
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105.U205			
C 8576-8	100 MF 35V 10% ELEC	1	C26			
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101,U201,U500			
C 9030-8	COMPARATOR, QUAD LM339D SO-1	4	U102, U104, U202, U204			
C 9157-6	100UF 16V 20% NP ELEC HAD T/	2	C123, C223			
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q1Ø4,Q2Ø4			
C 9283-Ø	DIODE, 1N914/1N4148 SQT-23 S	56	D9. D13. D101. D102. D103. D104.			
			D105, D106, D107, D108, D109,			
			D110, D111, D112, D113, D116,			
	-		D117, D118, D119, D120, D121,			
-			D122, D123, D124, D125, D126,			
			D127, D128, D129, D130, D201,			
			D202, D203, D204, D205, D206.			
			D207, D208, D209, D210, D211,			
	-	_	D212, D213, D216, D217, D218,			
	-		D221, D222, D223, D224, D225,			
	···		D226, D227, D228, D229, D230			
C 9896-9	TEST POINT LOOP	2	TP3B, TP39			
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1 X , U2 X			
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109.0111.0202.0209,0211			
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224			
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205			
C10422~1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215			
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234			
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21			
H42902-9	ASM, THERMAL SENSE	2	U106, U206			
101015-1	LBL, BARCODE, , ,	1	2			
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7			
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4			
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2			
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5			
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1			
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235			
102438-560K2	56PF 200V 10% NPD 0805	4	C106.C206.C504.C604			
102438-820K2	82PF 200V 10% NPC 0805	4	C108,C138,C208,C238			
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201			
102466-1	10UF 250V 20% RADIAL T/R	1	C1			
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603			
102468-1	47UF 10V 20% NP RAD T/R	4	C113.C114.C213.C214			
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202			
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502			
102472-3	HDR. 16POS .100 CTR SGL ROW	1	13			
	IN A OTRICE					

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ISHAWAKA ROAD ELKHART, INDIANA 48517
KLW 03-26-99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8928 SHEET 4 OF 20 RE



	PARTS LIST						
C. P. N.	DESCRIPTION	OTY	REFERENCE DESIGNATION				
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200				
102475-1	BLOCK. 5 POS TERMINAL	1	TB1				
102476-1	LED, SMT R/A GREEN	3	E1, E101, E201				
102477-1	LED. SMT R/A RED	4	E100.E102,E200.E202				
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132,Q232				
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3				
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233				
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208				
102483-1	PNP 300V 500MA SQT-23	2	Q103,Q203				
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	บ3				
102488-1	SPDT HORIZ SLIDE	1	S1				
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	H53				
102570-3	HS ASM, T1 ISOLATED CH2, , ,	1	HS4				
102571-3	HS ASM, T1 NON-ISOLATED CH1,	1	HS1				
102572-3	HS ASM, T1 NON-ISOLATED CH2.	1	H52				
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25.HW26				
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100, R200				
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<del>-</del>	HW8				
102723-2	OPTO CELL ON-500 OHM	2	U100.U200				
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7				
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244				
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210				
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220				
103199-1	Ø.4 OHM 1W 5% 2512 T/R	38	R1, R7, R152, R153, R156, R157,				
105135 1	8. 4 OHM (# 3/2 2512 1/1)	30	R159.R167.R168.R171.R172,				
	· ·		R252.R253.R256,R257,R259,				
			R267, R268, R271, R272, R300,				
_			R301,R302,R305,R306,R307.				
		_	R308, R311, R312, R400, R401,				
			R402, R405, R406, R407, R408,				
		<del> </del>	R411.R412				
103210-1	2.2UF 160V RADIAL T/R	4	C136, C137, C236, C237				
	WIRE, 16 BLK/WHT TAB X 5 X T		WP2				
103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM						
	MACOD 8 AMP 400V TRIAC	2	Q131,Q231				
125106-1	CAP, .62SID X 1" VINYL						
125242-1	3.83KOHM 0.50W 1% 2010 T/R	2	3 R142,R242				
	<del> </del>		5				
125482-1	ACTIVATOR LOCTITE 384 OUTPUT	0	_				
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6				
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30				
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200				
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4				
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600				
127442-1	PREP. CE HI-V WIRE	1	WP6				

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN KLW 83-26-99 DWG. NO. SHEET 5 OF 28 RE PROJ. MD390D0



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	□ 4477~3	470 MF 35V VERT	G 1Ø
CS	C 4477-3	470 MF 35V VERT	G 9
C8		0.1 MF 50V 10% 0805	H 10*
C7		0.1 MF 50V 10% 0805	н 9*
C12		0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24		0.1 MF 50V 10% 0805	N 9*
C25		0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		0.1 MF 50V 10% 0805	J 9*
C29	-	0.1 MF 50V 10% 0805	I 9*
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	I B
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 50V AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C1 Ø4		100PF 200V 10% NPO 0805	M 9*
C105		100 MF 25V 20% VERT ELEC	L 9
C106		56PF 200V 10% NPO 0805	L 9*
C107		27PF 50V 10% NPO 0805 T/R	L 9*
C128		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0805	H 6*
C110		470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N B
C114	102468-1	47UF 10V 20% NP RAD T/R	N B
		0.1 MF 50V 10% 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	ΙΘ
C119		4700PF 50V 10% X7R 0805	I 7*
C120		100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	GB
C122		0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F B
C124	C1Ø196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C123		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129		0.1 MF 50V 10% 0805	M 9*
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 1718 WEST MISHAWAKA ROAD
 ELKHART. INDIANA 46517

 DRAWN
 KLW
 03-26-99
 DWG. NO.

 PROJ.
 MD39000
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PHONE (218) 294-8888 SHEET 6 OF 20 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C13Ø		0.1 MF 50V 10% 0805	н в*
C131		0.1 MF 50V 10% 0805	H 7*
C132		0.1 MF 50V 10% 0805	F 7*
C133		0.1 MF 50V 10% 0805	F 8*
C134	_	0.001UF 50V 5% NPO MLC 0805 T/	м 7*
C135		100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138		82PF 200V 10% NPO 0805	M 7*
C139		0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141		470PP 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 10
C143	•	0.01MF 50V 5% X7R 1206	M 9*
C144	103191~1	0.47UF Z5U 1210 20% 50V	G 7*
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202		.47 MF 50V AX CERM	кэ
C203		22MF 25V 20% RAD T/R	K 9
C204		100PF 200V 10% NPO 0805	J 9*
C205		100 MF 25V 20% VERT ELEC	J 9
C206		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	н э*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C218		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C212	102468-1	47UF 10V 20% NP RAD T/R	К 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K B
C215		0.1 MF 50V 10% 0805	K 8*
C216		4700PF 50V 10% X7R 0805	J 2*
C217	,	2700PF 50V 10% CHIP 0805	D 1*
C218		0.1 MF 250V 5% MTL POLY	I 1
C219		4700PF 50V 10% X7R 0805	E 1*
C220		100PF 200V 10% NPD 0805	D 2*
C228	C10196-1	2.2MF 50V 20% RAD T/R	E B
C222		0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	1 9
C226		0.1 MF 50V 10% 0805	K 10*
C227		0.1 MF 50V 10% 0805	K 9*
C228			J 10*
		0.1 MF 50V 10% 0805	J 9*
C229		0.1 MF 50V 10% 0805	F 8*
C230_		0.1 MF 50V 10% 0805	E 7*
C231		0.1 MF 50V 10% 0805	
C232		0.1 MF 50V 10% 0805	E 7*
C233	A1142/-104KZ	0.1 MF 50V 10% 0805	D 8 *
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DRAWN KLW 03-25-99 DWG. NO.
PROJ. MD390D0

ELKHART, INDIANA 48517

PHONE (219) 294-8000 SHEET 7 OF 20 RE



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	Ī 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239		0.1 MF 50V 10% 0805	₽ 7*
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	Jġ
E241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C243		0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501		12PF 50V 10% NPO 0805 T/R	A 2
C5Ø2		12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504		56PF 200V 10% NPO 0805	A 2
C505		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C5Ø9		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C6Ø1		12PF 50V 10% NPO 0805 T/R	A 1
C6Ø2		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C6Ø4		56PF 200V 10% NPC 0805	B 2
C605		0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM 0.1W 5% CHIP 0805	СЗ
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0805	<u> </u>
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	7.8
DB	C 3549-0	DIODE ZENER, 10V. 1N5240B	<u>18</u>
D9	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	19*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-Ø	DIODE, 1N814/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4/148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D108	C 9283-0	DIODE, 1NB14/1N4148 SOT-23 SMT	N 8*
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 48517 PHONE (219) 294-8888 DRAWN KLW 03-26-99 DWG. NO. SHEET 8 OF 20 RE PROJ. MD39@D@



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D109	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B*
D112	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 12 *
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	M 7
D127	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	мв
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 8*
D2Ø7	C 9283-0	DIODE. 1N914/1N4148 SOT~23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8*
D211	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	K 8*
D212	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	К 9*
D213	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	K 8*
D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 3
D215	C1Ø422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-Ø	DIDDE, 1N914/1N4148 SOT~23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-Ø	DIODE, 1N914/1N4148 SQT-23 SMT	K 8
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For Reference Use Only

# CROWN INTERNATIONAL INC. 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-88888 DESAUNI | M. W. | 03-76-99 | DWG. NO. SHEET 9 OF 20 | PE

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DRAWN KLW 03-25-99 DWG. NO. PROJ. MD39000

NG. NO. SHEET 9 OF 2



	PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*		
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*		
D230	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	К 9		
E 1	102476-1	LED, SMT R/A GREEN	I 1		
E100	102477~1	LED, SMT R/A RED	J 1		
E1Ø1	102476-1	LED. SMT R/A GREEN	J 1		
E102	102477-1	LED, SMT R/A RED	K 1		
E200	102477-1	LED, SMT R/A RED	M 1		
E201	102476-1	LED, SMT R/A GREEN	L 1		
E2Ø2	102477-1	LED, SMT R/A RED	M 1		
H1 1		OPEN	K 1		
H1 4		OPEN	I 8		
н18		OPEN	D 8		
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1.			
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2.			
H53	102569-3	HS ASM. TI ISOLATED CH1, , ,			
H\$4	102570-3	HS ASM. T1 ISOLATED CH2			
HWI	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4		
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4		
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4		
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4		
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4		
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4		
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	8 4		
HWB	102608-1				
HW9	A10020-7	SPACER, 6X.187 LONG ALUMINUM	B 4		
	: -	6-32 X .625 PCB CAPTIVE STUD	D 5		
HW1 0	A10020-7	6-32 X .625 PCB CAPTIVE STUD	1 6		
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2		
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	1 3		
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5		
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6		
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2		
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	E N		
	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4		
HW1 B	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4		
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4		
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4		
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4		
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4		
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4		
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4		
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4		
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4		
HW27		SCREW.6-32 X.5 TORX PNHD SEM	A 4		
HW28		SCREW, 6-32 X.5 TORX PNHD SEM	A 4		
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10		
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	М 8		
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10		
J5	101993-1	JACK, 6P4 COND MODULAR R/A			

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PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8000
DRAWN KLW 03-26-99 DWG. NO. SHEET 10 OF 20 RE 102139-11



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	8 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL. 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	нв
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	м 9*
0101	C 7448~1	MMBT3904 CHIP NPN	м 9*
Q1Ø2	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q1Ø5	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8 *
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SQT-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MACSD 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
Q133	102400-1	FET. N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q200	C 7448-1		K 9*
0202	C 9931-4	MMBT3904 CHIP NPN MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	-
_		-	I 3
0205	103193-1	PNP 300V 500MA 50MHZ 50T-223	J 7*
Q2Ø7	103192-1	NPN 300V 500MA 50MHZ SOT-223	К 7*
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### INTERNATIONAL INC. CROWN 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8088 DRAWN KLW 03-26-99 DWG. NO. SHEET 11 OF 20 RE

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PARTS LIST								
REF DES	C. P. N.	DESCRIPTION	MAP LOC.					
0208	102481-1	NPN 25V LDW NOISE SOT-23	K 7*					
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*					
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*					
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*					
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*					
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*					
0231	125106~1	MACSD 8 AMP 400V TRIAC	E 9					
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8					
Q233	102480-1	FET, N~CH 25V 50MA SOT~23	J 9*					
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*					
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*					
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*					
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*					
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*					
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*					
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8∗					
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*					
R9		10K 1/10W 1% CHIP 0805	н 9*					
R10		20K 0.25W 1% CHIP 1210	н 9*					
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*					
R12		68.1K 0.10W 1% CHIP	I 9*					
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*					
R14	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*					
R15	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*					
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*					
R17		8.25K 0.1W 1% CHIP 0805	F 10*					
R18		7.15K 1/10W 1% CHIP 0805	D 8*					
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*					
R2Ø		57.6K 0.10W 1% CHIP 0805	19*					
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*					
R22		392K 0.10W 1% CHIP 0805	19*					
R23		392K 0.10W 1% CHIP 0805	I 9*					
R24		57.6K 0.10W 1% CHIP 0805	I 9*					
R25		100K 0.1W 1% CHIP 0805	N 9*					
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*					
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*					
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*					
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE 1219) 294-8888

 DRAWN
 KLW 03-26-99
 DWG. NO.
 SHEET 12 OF 20
 RE
 MD39@D@

PROJ.



PARTS LIST							
REF DES	C. P. N.	DESCRIPTION	MAP LOC.				
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*				
R31	A11368~10031	100K 0.1W 1% CHIP 0805	¥8 ר				
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8				
R33	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*				
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8				
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1				
R101		1K 0.10W 1% CHIP 0805	M 10*				
R102		392K Ø.10W 1% CHIP 0805	N 9*				
R103		499 OHM 0.10W 1% CHIP 0805	N 9*				
R104	A11368-10021		N 9*				
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*				
R106		1K 0.10W 1% CHIP 0805	м 9*				
R107		10K 1/10W 1% CHIP 0805	L 10*				
R108		10K 1/10W 1% CHIP 0805	L 10*				
R109		19.1K 0.125W 1% CHIP 1206	м 9*				
R110	·	1K 0.10W 1% CHIP 0805	L 9*				
R111		10K 1/10W 1% CHIP 0805	L 9*				
R1 1 2		19.1K 0.25W 1% MF	L 9				
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*				
R114		8.25K 0.1W 1% CHIP 0805	L 10*				
R115		68.1K 0.10W 1% CHIP	L 10*				
R116		226 OHM Ø.10W 1% CHIP Ø8Ø5	м 9*				
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м 9*				
R118		6.81K OHM 0.10W 1% CHIP 0805	M 10				
R119	A11371-3333	33K Ø.25W 5% CHIP 1210	M 9*				
R120		90.9K 0.10W 1% CHIP 0905	м 9*				
R121		10K 1/10W 1% CHIP 0805	M 10				
R122		158K 0.10W 1% CHIP 0805	N 9*				
R123		100K 0.1W 1% CHIP 0805	M 9*				
R124	t	158K 0.10W 1% CHIP 0805	м 9*				
R1 25		100K 0.1W 1% CHIP 0805	N 9*				
R126		49.9K 0.1W 1% CHIP 0805	м 9*				
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*				
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*				
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*				
R130		OPEN	0.8*				
R131		OPEN	0.8*				
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*				
R133	A11371-7511	750 OHM 0.10W 5% CHIP	н 6*				
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7				
R135	A11371-3923	3.9K 0.25W 5% CHIP	м 7*				
R136	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*				
R137		150 DHM 0.125W 1% CHIP	N 8*				
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*				
R139		137 OHM 0.25W 1% CHIP	N 8*				
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*				
R1 4 1	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*				
11171	NI 13/1-0211	OZO ONIVI B. IBW D/S CHIF					
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN KLW 03-26-89 DWG, NO. SHEET 13 OF 20 RE MD390D0

PROJ.



PARTS LIST							
REF DES	C. P. N.	DESCRIPTION	MAP LOC.				
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0.8*				
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*				
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*				
R145	A11371-1213	120 DHM 0.25W 5% CHIP	N 8*				
R146	A11371~1331	13K CHM 0.10W 5% CHIP 0805	N 7*				
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*				
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*				
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*				
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*				
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*				
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*				
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*				
R158	A10266-2R74	2.7 OHM 2W 5% CF	I B				
A159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*				
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*				
R161	A11371-1331	13K OHM Ø.10W 5% CHIP Ø805	H 7*				
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*				
R163		180 OHM 0.10W 5% CHIP	I 7*				
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*				
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*				
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*				
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*				
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*				
R174		604K DHM 0.125W 1% CHIP 1206	G 8*				
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*				
R176		10K 1/10W 1% CHIP 0805	G 8*				
R177		10K 1/10W 1% CHIP 0805	н 8*				
R178		90.9K 0.10W 1% CHIP 0805	N 9*				
R179		100K 0.1W 1% CHIP 0805	F 7*				
R180		392K Ø.10W 1% CHIP Ø8Ø5	G 8*				
R181		680 OHM 0.50W 5% CHIP	J 1*				
R182		10K 1/10W 1% CHIP 0805	F 8*				
R183		100K 0.1W 1% CHIP 0805	F 8*				
R184		20K 0.25W 1% CHIP 1210	F 9*				
R185		10K 1/10W 1% CHIP 0805	G 8*				
R186		100K 0.1W 1% CHIP 0805	N 10*				
R187		158K 0.10W 1% CHIP 0805	M 10*				
R188		158K 0.10W 1% CHIP 0805	N 10*				
R189		100K 0.1W 1% CHIP 0805	M 10*				
R190		57.6K 0.10W 1% CHIP 0805	N 6*				
R191		226 OHM 0.10W 1% CHIP 0805	N 6*				
R192		604K OHM 0.125W 1% CHIP 1206	L 9*				
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*				
R194	A11371-8201	82 DHM 0.10W 5% CHIP	M 7*				
R195	A11371-8211	820 DHM 0.10W 5% CHIP	M 7*				
R196		10K 1/10W 1% CHIP 0805	M 9*				
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 1Ø				
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PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 48517 PHONE (219) 294-8868
DRAWN KLW 03-26-99 DWG. NO. SHEET 14 OF 20 REV 102139-11



PARTS LIST							
REF DES	C.P.N.	DESCRIPTION	MAP LOC.				
R198		OPEN	M 10				
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*				
R200	102595-3	PDT, 5K LIN 21 DNT 12MM HORIZ	N 1				
R201	A11368+10011	1K 0.10W 1% CHIP 0805	K 10*				
R202		392K 0.10W 1% CHIP 0805	L 9*				
R203		499 DHM 0.10W 1% CHIP 0805	L 9*				
R204	,	10K 1/10W 1% CHIP 0805	L 9*				
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*				
R2Ø6		1K 0.10W 1% CHIP 0805	J 9*				
R209		19.1K 0.125W 1% CHIP 1206	K 9*				
R210		1K 0.10W 1% CHIP 0805	J 9*				
R211		10K 1/10W 1% CHIP 0805	J 9*				
R212		19.1K 0.25W 1% MF	J 9				
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*				
R214		8.25K 0.1W 1% CHIP 0805	J 10*				
R215		68.1K 0.10W 1% CHIP	J 10*				
R216		226 OHM 0.10W 1% CHIP 0805	K 9*				
R217	A11371-3341	330K 0.10W 5% CHIP 0805	1 8*				
R218		6.81K CHM 0.10W 1% CHIP 0805	K 10				
R219		33K Ø.25W 5% CHIP 1210	J 9*				
R220	<b></b>	90.9K 0.10W 1% CHIP 0805	K 9*				
R221		10K 1/10W 1% CHIP 0805	K 10				
R222		158K 0.10W 1% CHIP 0805	К 9*				
R223		100K 0.1W 1% CHIP 0805	K 9*				
R224		158K 0.10W 1% CHIP 0805	K 9*				
R225		100K 0.1W 1% CHIP 0805	L 9*				
R226		49.9K 0.1W 1% CHIP 0805	K 9*				
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*				
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*				
R229	A11371-B211	820 OHM 0.10W 5% CHIP	K 7*				
R230		OPEN	L 7*				
R231		OPEN					
R232	A11371~2223	2.2K 0.25W 5% CHIP 1210	H 3*				
		750 OHM 0.10W 5% CHIP	н э*				
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7				
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*				
R236	A11371-8201	82 OHM 0.10W 5% CHIP	j 7*				
R237	A11368-15002		К 8*				
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*				
R239	A11368-13703	137 OHM Ø.25W 1% CHIP	К 8*				
R240	A11371-3333	33K Ø.25W 5% CHIP 121Ø	K 7*				
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*				
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*				
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*				
R244	A11371-1213	120 OHM 0.25W 5% CHIP	к 8*				
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*				
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*				
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#### INC. CROWN INTERNATIONAL PHONE (219) 294-8888

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DRAWN KLW 03-26-99 DWG. NO.

MD390D0

PROJ.

SHEET 15 OF 20 REV



PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP LOC.			
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*			
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*			
R25Ø	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*			
R252	103199-1	2.4 OHM 1W 5% 2512 T/R	K 4*			
R253	103199-1	Ø.4 OHM 1W 5% 2512 T/R	к 3*			
R256	103199-1	Ø. 4 OHM 1W 5% 2512 T/R	N 4*			
R257	103199~1	0.4 OHM 1W 5% 2512 T/R	N 3*			
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	р э*			
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*			
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*			
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*			
R263	A11371~1811	180 OHM 0.10W 5% CHIP	E 2*			
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*			
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*			
R268	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*			
R271	103199-1	0.4 QHM 1W 5% 2512 T/R	H 4*			
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н з*			
R274		604K OHM 0.125W 1% CHIP 1206	E 8*			
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*			
R276		10K 1/10W 1% CHIP 0805	E 8*			
R277		10K 1/10W 1% CHIP 0805	E 8*			
R278		90.9K 0.10W 1% CHIP 0805	L 9*			
R279		100K 0.1W 1% CHIP 0805	E 7*			
R280		392K 0.10W 1% CHIP 0805	E 8*			
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*			
R282		10K 1/10W 1% CHIP 0805	D 8*			
R283		100K 0.1W 1% CHIP 0805	E 8*			
R284		20K 0.25W 1% CHIP 1210	F 9*			
R285		10K 1/10W 1% CHIP 0805	F 8*			
R286		100K 0.1W 1% CHIP 0805	L 10*			
R287	-	158K 0.10W 1% CHIP 0805	K 10*			
R288		158K 0.10W 1% CHIP 0805	K 10*			
R289		100K 0.1W 1% CHIP 0805	K 10*			
R290		57.6K 0.10W 1% CHIP 0805	*E N			
R291		226 OHM 0.10W 1% CHIP 0805	N 3*			
R292		604K OHM 0.125W 1% CHIP 1206	J 9*			
R293		10K 1/10W 1% CHIP 0805	K 9*			
R294	A11371-8201	82 OHM 0.10W 5% CHIP	5 7*			
R295	A11371-8281	820 OHM 0.10W 5% CHIP	J 7*			
R298		10K 1/10W 1% CHIP 0805	K 9*			
R297	A11368-10021	5.11K OHM 0.10W 1% CHIP 0805	K 10			
	VI1908-31111	OPEN	K 10			
R298	A11271-0002		K B*			
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	<b>-</b>			
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*			
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6* _			
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*			
R305	103 <u>199-1</u>	0.4 OHM 1W 5% 2512 T/R	м 6*			

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DRAWN KLW 23-25-99 DWG. NO.

MD390D0

PROJ.

PHONE (219) 294-8000 SHEET 16 OF 20 RE



PARTS LIST							
REF DES	C. P. N.	DESCRIPTION	MAP LOC.				
P306	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*				
H307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*				
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*				
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*				
R312	1@3199~1	0.4 OHM 1W 5% 2512 T/R	I 6*				
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*				
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*				
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*				
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*				
R317	A11371~3934	39K OHM 0.50W 5% CHIP 1210	8				
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8				
R319		OPEN	M 10*				
R322	A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	L 9				
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8				
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*				
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*				
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	К Э*				
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*				
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*				
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*				
R408	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*				
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*				
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*				
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*				
FI414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*				
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*				
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*				
FI417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7				
R418	A11371-3934	39K DHM 0.50W 5% CHIP 1210	ΚВ				
H419	·	OPEN	K 10*				
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*				
H421	A11371-5R65	5.6 DHM 1W 5% CHIP 2512	H 1*				
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9				
R423	A11371-0R02	Ø.Ø OHM JUMPER CHIP 1206	F 8				
R500	A11368-10021	10K 1/10W 1% CHIP 0805	А З				
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2				
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2				
A503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2				
R504	A11368-10021		A 2				
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2				
R508		OPEN	С 2				
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1				
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1				
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2				
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2				
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1				
R606	A11368-10021	10K 1/10W 1% CHIP 0805	8 2				

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888 DRAWN KLW 23-26-99 DWG. NO. SHEET 17 OF 20 RE MD390D0

PROJ.



PARTS LIST							
REF DES	C. P. N.	DESCRIPTION	MAP	LOC.			
R607	A11371-8205	82 OHM 1W 5% CHIP 2512		A 1			
R608		OPEN		C 1			
51	102488-1	SPDT HORIZ SLIDE		L 10			
52	C 7325-1	2P 2 POS. PC SLIDE SW.		L 10			
TB1	102475-1	BLOCK, 5 POS TERMINAL		A 2			
TP38	C 9896-9	TEST POINT LOOP		K 1			
TP39	C 9896-9	TEST POINT LOOP		N 7			
U1	C 5095-2	POS. 15 VOLT REG.		H 10			
⊔1×	C 9918-1	TO220 VERT CLIP-ON HEATSINK		H 10			
U2	C 5096-0	NEG. 15 VOLT REG.		н 9			
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		н 9			
UЗ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%		N 10			
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP		I 9			
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP		N 9			
U100	102723-2	OPTO CELL ON-500 OHM		м 9			
U1Ø1	C 9012-3	MC33079D QUAD LD NOISE OF AMP		M 10			
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14		N 9			
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14		G 7			
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP		F 7			
U106	H42902-9	ASM, THERMAL SENSE		N B			
U200	102723-2	OPTO CELL ON-500 OHM	<b>-</b>	K 9			
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP		J 10			
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14		K 9			
U2@4	C 9038-8	COMPARATOR, QUAD LM339D SO-14	_	E 7			
U205	C 8282-5	MC33078D DUAL LO NOISE OF AMP		E 7			
U206	H42902-9	ASM, THERMAL SENSE		N 3			
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP		A 2			
WP1		WIRE, 16 RED FAST X 5 X TERM		A 10			
WP2		WIRE, 16 BLK/WHT TAB X 5 X T		A 9			
WP3		WIRE, 16 BLU FAST X 5 X TERM		A 9			
WP4	101031-1	.250 FASTON, AUTO INSERTABLE		D 7			
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4			
WP6	127442-1	PREP. CE HI-V WIRE		J 8			
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	<u> </u>	D 8			
Z1	(0.05)	OPEN		E 9			
1	102138-9	PWB. CE1000/CE2000 MAIN/INPU	SEE	COMP	MAP		
2	101016-1	LBL, BARCODE, , ,	-	COMP			
3	125242-1	CAP, .625ID X 1" VINYL		COMP			
4	126825-1	SILICONE, CLEAR 30Z SYRINGE		COMP			
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	_	COMP			
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	-	COMP			
7	103180-1	BUMPER, Ø.4" TALL BLK W/ADH		COMP	$\overline{}$		
<del>'</del>	163196-1	BOWFER, 8.4 TALL BLK W/ADM	366	COMP	MAF		
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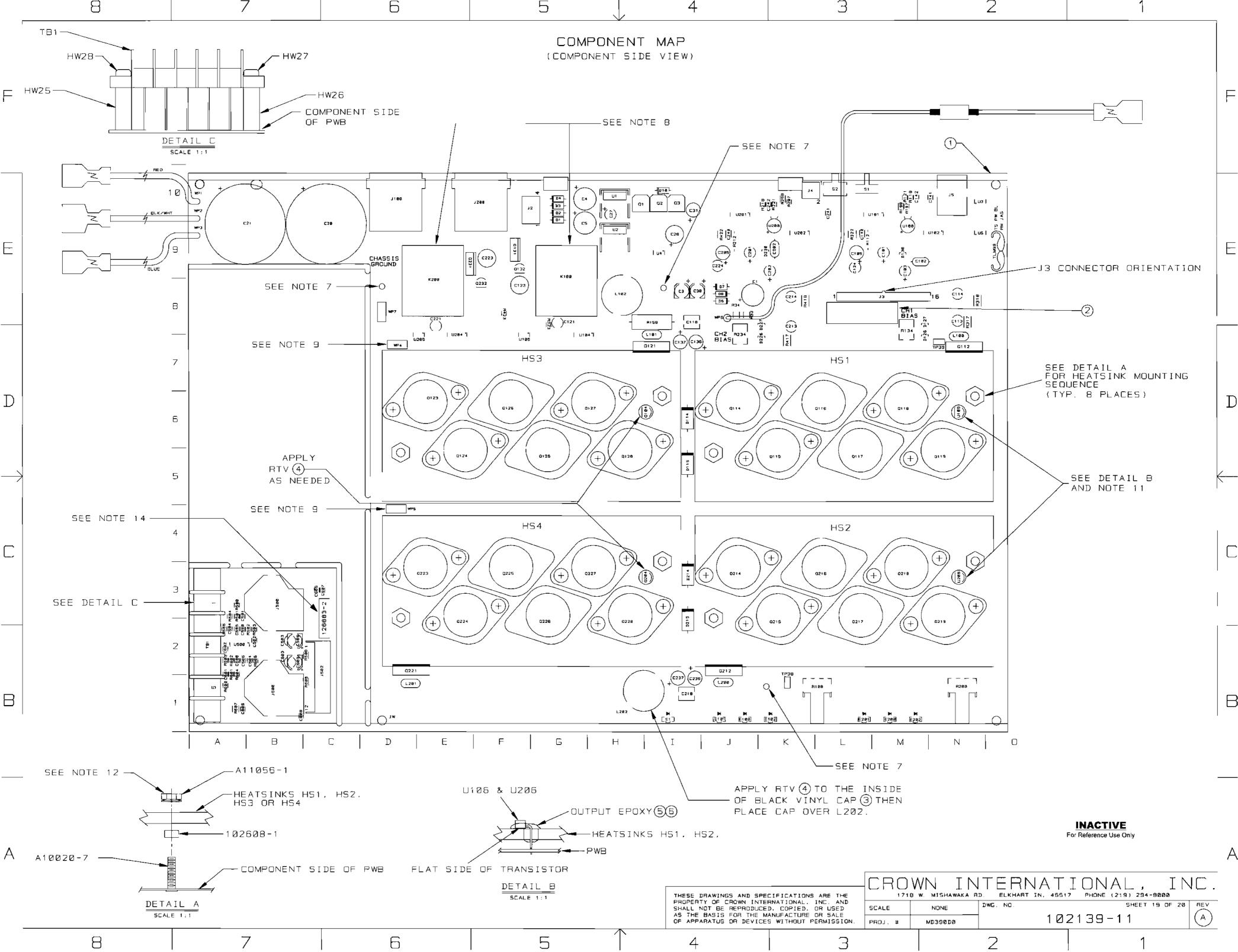
DRAWN KLW 03-26-99 DWG. NO. SHEET 18 OF 20 RE PROJ. MD39ØDØ

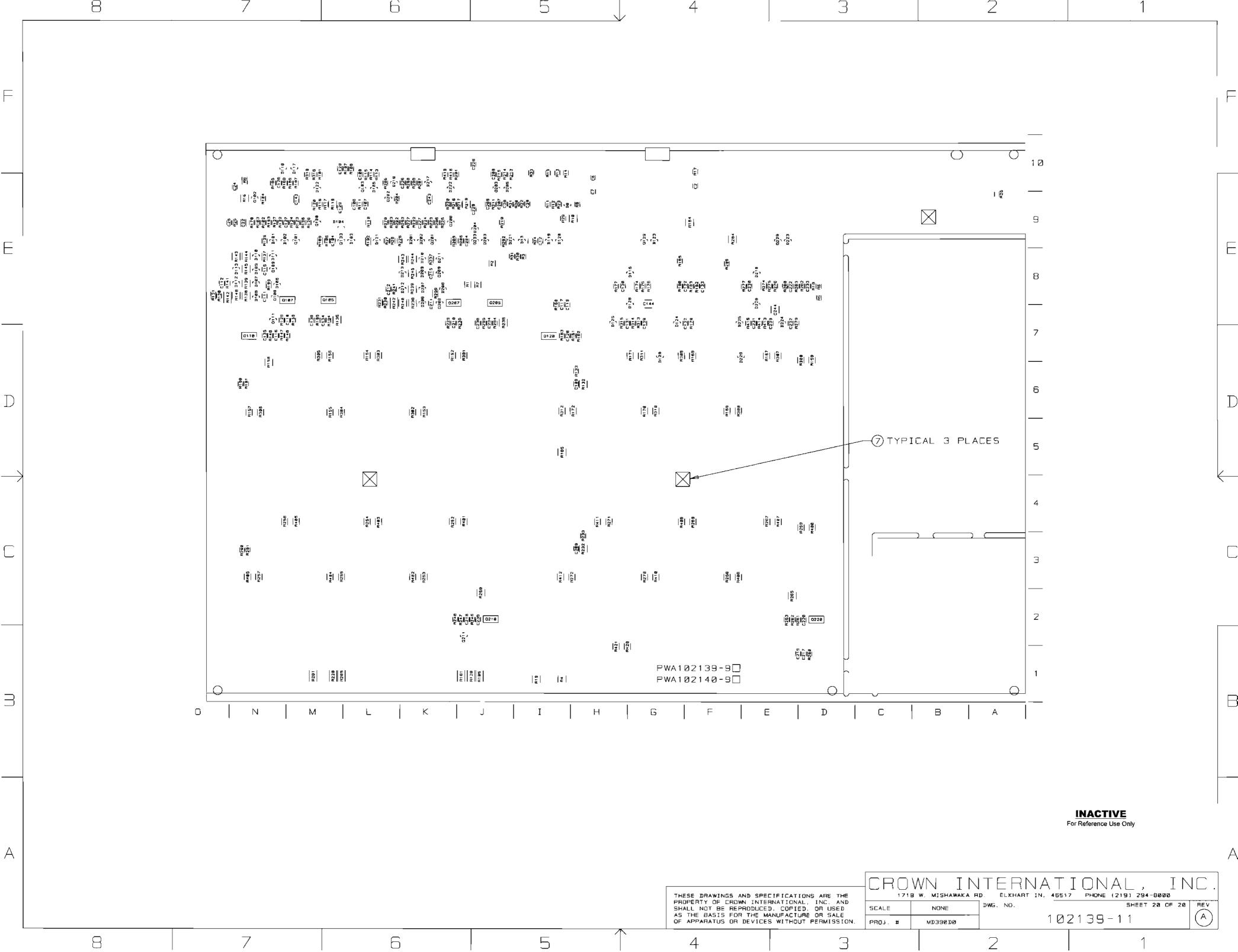




# **Component Map**

for use with Main PWA #102139-11







# **102140** rev H **PWA, Main CE2000**

PWB part number 102138-6 PWA part number 102140-6 Schematic Drawing number 102141 rev F

€.C. ZON			<u> </u>				APPROVALS			
	ZONE	MEV.	DESCRIPTION	<u> </u>	ATE	BY	CHK	ME	€€	PΕ
•		E	NOTE 2 WAS 182138-4. NOTE 3 WAS 182148-4.	11/	20/97	TLM	KW			TS
DCN# 97 D9864		F	RIS WAS 2.7K. ADDED NOTES 13 & 14. ADDED ITEM 8 CABLE TIE. WP! WAS A1127F-ABSS. WP? WAS 183331- NGSEP. MP? WAS A11378-CESSS. ADDED C28 SILKSCREEN LEGEND TO SHT 18 COMPONENT WAP. CORRECTED C28 CPN DN SHTEET 5. MOVED ITEM 2 ON SHEET 18 COMPONENT WAP. R258 IS NOW A "DO NOT INSTALL".	12/	12/97	TLM	ĸw			τs
DCN# 900 <b>000</b> 3		G	MS WAS All308-88711, MIL WAS All3/1-5141. ADDED M7.	<b>9</b> 1-	99-98	KLW	TLM			TS
DCN# 9809097		н	WP1 WAS A11378-3658A. WP2 WAS A11585- 3858N. WP3 WAS A11379-3858C. R188 AND R288 WERE 182595-2.	<b>9</b> 1-	16-99	TLN	K		\	Te.

#### NOTES:

- 1. SCHEMATIC BRAWING NUMBER 182142.
- PWB PART NUMBER 182138-8
- 3. PWA PART NUMBER 182148-8.
- +. THE PWA SHALL MEET THE IPC-A-818\_ CLASS 2 STANDARDS.
- 5. ALL LEADS SHALL OF TRIMED TO 0.883" OF LESS.
- POSITION COMPONENTS AS SHOWN ON COMPONENT WAP
- 7. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
- ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- 8. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- S. THE VENT HOLE ON TOP OF THE RELAYS KIBS AND KIBS MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMILAR CUTTING TOOL. WARNING, THIS STEP MIST BE DONE AFTER THE CLEANING PROCESS NOT BEFOREITI WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 18. CONNECT THE WIRES THAT COME FROM DIZE AND DEED TO WP4 AND WP6 MESPECTFULLY.
- 1). THE PWA PART HUMBER AND DRAWING REVISION FOR THIS MODULE SHALL BE MARKED ON THE F.C. BOARD AND SHALL BE PERMANENT.
- 12. INSTALLATION OF UIBS AND U286 IS AS FOLLOWS:
  - 12A REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42882-8
  - 128. BEND TRANSISTOR AT 98 DEG. FLAT SIDE DOWN
  - 12C. PLACE TRANSISTOR INTO THE PMB AS SHOWN ON THE COMPONENT MAP DETAIL D.
  - 125. MIX OUTPUT EPOXY AND ACCELERATOR TOSETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSING. THE MIXTURE MUST FILL THE HEATSING HOLE AND THE LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD. (HOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK?
  - 12E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 13. TOPOUE 6-32 HEX NUTS ICPM ATTERS-13 AS FOLLOWS:
  13A. PRE-WAVE TORQUE OF 4-6 INCH LOS.
  13B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
  TEMPERATURE TORQUE OF 13-15 INCH LOS.
  14. INSTALL 23 CONNECTOR AS SHOWN ON COMPONENT MAP



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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PRINTS TO				TIONAL INC.
K	PWA,		N CE2	TOL. UNLESS SPECIFIED
	DRAWN TL	M 99-89-97	APPROVED BY	DO NOT SCALE PRINT
	CHECKED KI	v 09-09-97	ME	SUPERSEDES 182148 REV.G
	SCALE	CALE NONE		97 E.C. DCNS 9809997
	# LONS	MD398D6	PE TS 89-89-	97 DWG. NO. SHEET 1 REV
	FILENAME: 182140-5H01.PC		NEXT ASM:	102140 SHEET 2 H

	PARTS LIS	T	
.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
101016-1	LBL, BARCODE, , ,	1	2
01031-1	0.250 FASTON, AUTO INSERTABL	2	WP4, WP5
101571-1	HDR. 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR, 4 POS .1 CTR MTA SHRD	1	J2
01993-1	JACK, 6P4 COND MODULAR R/A	1	J5
02136-5	PWB CE1800/CEZ800 MAIN	1	1
02438-101K2	100PF 200V NPO 0805 T/R	а	C104.C120.C135.C204.C220.
			C235
Ø2438-221K2	220PF 200V 10% NPO 0805 T/R	2	C111, C211
	56PF 200V 10% NPO T/R	2	
02438-820K2		4	C108, C208, C138, C238
02465-1	.47UF 50V 20% RADIAL T/R	— <del></del>	C191,C201
02466-1	10UF 250V 20% RADIAL T/R	1	C1
02467-1	22UF 25V 20% RADIAL T/R	2	C183.C283
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
02470-1	INDUCTOR. 2.75UH 11A RADIAL	2	L102.L202
02472-3	12POS . 100CTR ASSY SGL ROW	1	13
02473-1	SPEAKON, 4 POLE PCB HORZ	2	1108,1200
02476-1	LED, SMT R/A GREEN	3	E1,E101.E201
02470-1	LED. SMT R/A RED	4	E100.E102.E200.E202
Ø2478-1	TRIAC DRIVER, SBS BV THRESH	2	D132.Q232
02479-1	PWR NPN DARLINGTON 100V 2A	<del></del>	Q1,Q2
		2	
02480-1	MMBF4856LT1 FET 25V SOT-23	2	
02481-1	NPN 25V LOW NOISE SOT-23	2	0198.0298
02483-1	PNP 300V 500MA 50T-23	2	0103,0203
02486-1	OPTO BJT NPN SOIC-8 CTR-100%	1	U3
02488-1	SPDT HORIZ SLIDE	1	5100
02573-1	HS ASM, T2 ISOLATED CH1	1.	H53
02574-1	HS ASM. TO ISOLATED CHO	1	HS4
102575~1	HS ASM, TO NON-ISOLATED CHI.	1	HS1
02576-1	HS ASM. TO NON-ISOLATED CHO.	1	HS2
102578-1	SPACER. 6X.125 AL BLK ANDD	8	HW1, HW2, HW3, HW4, HW5, HW6,
			HW7.HWB
02595-2	5K LIN 21 DETENT 12MM HORIZ	2	R100, R200
10318 <u>0-1</u>	BUMPER, 0.4" TALL BLK W/ADH	3	7
03181-1	2.47UF 50V Z5U 1210 T/R	. 4	C121,C124,C221,C224
03192-1	SOT-223 NPN 300V 500MA 50MHZ	4	0107,0110,0207,0210
03193-1	SOT-223 PNP 300V 500MA 50MHZ	4	Q105.Q120.Q205.Q220
03199-1	Ø.4 OHM 1W 5% 2512 T/R	52	R152,R153,R154,R155,R156.
			R157.R159.R167.R168.R169.
			R170,R171,R172,R252,R2F3.
			R254, R255, R256, R257, R259.
			R267, R268, R269, R270, R271,
			R272,R300,R301,R302,R303,
			R304.R305.R306.R307.R308.
<del> </del>			R309, R310, R311, R312, R400.
			R401, R402, R403, R404, R405.
· · · · · · · · · · · · · · · · · · ·			R408,R407,R400,R409,R410.
-			R411,R412
03210-1	2.2UF 160V HADIAL T/R	4	C136,C137,C236,C237

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SHEET 2 REV CONT. ON SHEET 3

	PARTS LIS	Т	· · · · · · · · · · · · · · · · · · ·
C.P.N.	DESCRIPTION		REFERENCE DESIGNATION
125106-1	MACSD 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP825ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	Ø	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50V 20% SMT AL ELEC T/R	1	C3
A18020-7	6-32 X .625 PCB CAPTIVE STUD	£	HW10, HW11. HW12, HW13. HW14.
·			HW15, HW16, HW9
A10266-2R74	2.7 OHM 2W 5% CF T/R	1	R158
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17.HW18.HW19.HW28.HW21.
			HW22, HW23, HW24
A11369-10011	1 KOHM 1W 1% CHIP 0805	4	R106,R110,R206,R210
A11368-10021	10K 1/10W 1% SMD 0805 T/R	24	R101,R104,R107,R108,R111,
			R176, R177, R182, R185.
			R193,R201,R204,R211,R276.
			R277.R282.R285.R293.R313.
			R316.R413.R416.R9.R27
A11368-10031	100.KOHM .1W 1% CHIP 0805	13	R123,R125,R179,R289.
			R183,R186,R189,R223,
			R225.R25.R279.R283.R286.
A11368-10703		2	R139, R239
A11368-12121	12.1KDHM .1W 1% 0805 T/R	1	R21
A11368-15831	158KOHM .1W 1% 0805 T/R	8	R122,R124,R222,R224,R187,
			R188.R287.R288
A11368-19122		4	R112.R109.R212.R209
A11368-20023	20.0KOHM . 25W 1% 1210 T/R	3	R10. R184. R284
A11368-22501	225 OHM 0.1W 1% 0805 T/R	4	R116,R216,R191,R291
A11368-39231	392 KOHM .1W 1% 0805 T/R	8	R126,R180,R22,R226,R280,R23
			R102,R202
A11368-49901	499 DHM .1W 1% 0805 T/R	4	R103,R203,R137,R237
A113 <u>68</u> -51111	5.11KOHM .1W 1% 0805 T/R	6	R113.R213.R175,R275.R315.
			R415
A11368-57621	57.6K, 0.10W, 1%, CF	. 4	R190,R290.R20.R24
A11368-68121	60.1KOHM 0.1W 1% CHIP 0805	3	R12, R115, R215
A11368-75R03	75 OHM .25W 1% 1210 T/R	2	R145,R245
A11368-82511	8.25KOHM .1W 1% CHIP 0805	5	R5, R18, R114, R214, R17
A11368-88711	8.87KCHM .1W 1% CHIP 0805	1	R6
A11368-90921	90.9K, 0.10W 1% MF 0805	4	R120,R220.R178.R276.
A11369-102J2	.001UF 50V 5% NPC MLC 0805 T		
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-471K2	470PF 50V 10% NPO 0805 T/R	2	C110, C210
A11371-0R02	Ø. OHM .125W 5% CHIP RES T/R		<del></del>
A11371-0R21	.20HM .1W 5% 0805 T/R	2	R14,R15
A11371-1011	100 OHM .1W 5% 0805 T/R	3	R13,R147,R247
A11371-1022	1.KOHM .125W 5% CHIP RES T/R		R8
A11371-1213	120 OHM . 25W 5% 1210 T/R	4	R138.R144.R238.R244
A11371-1331	13KOHM . 1W 5% 0805 T/R	4	R146, R161, R246, R261
A11371-1561	15 OHM .1W 5% Ø8Ø5 T/R	2	R160, R260
A11371-1811	180 DHM .1W 5% 0805 T/R	4	R148, R163, R248, R263
A11371-2223	2.2K 8.25W 5% 1210 T/R	2	R132.R232
A11371-2225	2.2K DHM 1W 5% 2512 T/R	3	H1.R2.R7

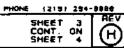
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	1718 WEST	MISHAWA	KA MUAD		i, KI	HAMT.	IND	[ ANA	4001/	
	DRAWN	TLM	89-89-	97	DV	<u> </u>	<u>o.</u>	4	4.0	
1	PROJ.	Ā		7	0	4	]	40		

SHEET 3 CONT. ON SHEET 4



	PARTS LIS	т	
C.P.N.	DESCRIPTION		REFERENCE DESIGNATION
A11371-2713	270 OHM . 25W 5% 1210 T/R	2	R322, R422
A11371-3313	338 OHM . 25W 5% 1218 T/R	2	R19, R4
A11371-3333	33 KOHM . 25W 5% 1210 T/R	B	R119, R219, R148, R143, R248, R243
A11371-3341	330 KOHM .1W 5% 0805 T/R	7	R3. R11, R117, R217, R26, R314,
			R414
A11371-3923	3.9K .25W 5% 1210 T/R	3	R16, R135, R235
A11371-3934	39K . SW 5% 2010 SMT T/R	4	R317,R31B,R417,R418
A11371-4701	RES, 47 OHM .1W 5% CHIP 0805	. 2	R162,R262
A11371-4724	4.7K OHM 0.5W 5% 2010 T/R	2	R142,R242
A11371~4751	4.7MEGOHM, 0.10W 5% MF 0805	5	R29, R174, R192, R274, R292
A11371-5R63	5,6 DHM . 25W 5% 1210 T/R	4	R150.R165.R250.R265
A11371-5R65	5.6 DHM 1W 5% 2512 T/R	_ 2	R420,R421
A11371-6814	680 DHM .5W 5% 2010 T/A	6	R105.R128.R181.R205.R228.
			R281
A11371-6821	6.8KOHM . 1W 5% CHIP 0805	2	R127.R227
A11371-7511	750 DHM . 1W 5% 0805 T/R	3	R28, R133, R233
A11371-8201	82 OHM 1W 5% 0805 T/R	4	R194.R294.R136.R236
A11371-8211	829 CHM .1W 5% 0805 T/R	6	R195.R295.R129.R141.R229.
			R241
A11378-A050U	WIRE, 16 RED 3/16" X 5 X FAS	1	WP1
A11379-C050U		1	WP3
A11427-103K2		6	C102.C109.C115.C202.C209.C215
A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X	28	C12, C139, C122, C126, C127,
			C128.C129.C138.C131.C132.
<del></del>	· · · · · · · · · · · · · · · · · · ·		C133.C239.C222.C226.C227.
			C228.C229.C230.C231.C232,
			C233,C24,C25,C6,C7,C2,C28,C29
A11427-123K2	.012 50V 10% X7H 0805 T/R	2	C112, C212
A11427-272K2	2700PF 50V 10% X7R 0005 T/R	2	C117,C217
A11427-472KZ	4700PF 50V 10% X7R 0805 T/R	4	C116,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	RECTIFIER, 1N4004 SILICON T/	7	D1, D10, D2, D3, D4, D6, D7
C 3510-2	CHOKE, 10% AXIAL 470 UH TR	4	L100.L101.L200.L201
C 3549-0	DIODE, ZENER 10V 1N52408 T/R	1	DB
C 4477-3	470 UF 35V VERT	2	C4, C5
C 5095-2	MC7815CT +15V, REG	1	U1
C 5096-0	MC7915CT -15V. REG	1	U2
C 5362-6	2.2UF 50V VERT ELECT T/A	1	C27
C 7091-9	.33 UF 50V Z5U CHIP_CAP		C22, C140, C240
C 7448-1	MMBT3904 CHIP NPN	<del>5</del>	Q100,Q101,Q129,Q200,Q201,
7,110	Minus 1949 ( Strate 1814)		0229
C 7816-9	VACTEC VTL5CZ OPTO-CELL	2	U100.U200
C 7947-2	B" CABLE TIE RED	1	8
C 8262-5	MC33078D LOW NOISE DUAL OF A	4	U105.U205.U4.U5
C 8426-6	. 1UF 250V 10% MET POLY RADIA	2	C118, C218
C 8576-8	100UF 35V 10% MET TOLT HADIA	1	C26
C 9012-3	OP AMP. QUAD LO NOISE MC3387	2	U101,U201
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102.U104.U202.U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
<u> </u>	10001 INT ZOW HE ELEC MAD IV		
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1/18 10251	WIDHVEY	KA MUAD	EPYWWW 1 INDIAWY 10311
DRAWN	TLM	99-89-97	DWG. NO.
PROJ.	MĐ	39 <b>0</b> 00	<u> </u>

PHONE (219) 294-9888

SHEET 4
CONT. DN
SHEET 5

	PARTS LIS	<u>T</u>	
C.P.N.	DESCRIPTION		REFERENCE DESIGNATION
C 9752-5	2N3904 40V NPN TRANSISTOR T/	2	0184,0284
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	54	D181, D182, D183, D184, D185.
			D106. D107. D108. D109. D110.
			D111.D112.D113.D116.D117.
			D118.D119.D120.D121.D122.
		_	D123.D124.D125.D13.D201.
			D202.D203.D204.D205.D206.
			D207.D208.D209.D210.D211.
			D212.D213.D216.D217.D218.
<del>'</del> -			D221.D222,D223.D224.D225.
	<u>-</u>		D9. D126, D127, D128, D129,
			D226, D227, D228, D229,
C 9896-9	TEST POINT PCB .1" CTR LOOP	2	TP36, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X.U2X
C 9931-4	MMBT5007LT1 PNP X5ISTOR SOT-	8	0102,0111,0202.0211,0109,
	70201011 001		0209
C10208-4	100.UF 25V 20% RAD ELECT T/R	2	·
C10335-5	RELAY 30A 24V T90 SEALED CE	2	<del>-</del>
C10422-1	DIODE. 3A 400V 1N5404 AXIAL	4	D114.D115.D214.D215
C10613-5	1 KOHM TOP ADJUST TRIMMER T/	2	H134.R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	
H42902-9	ASM. THERMAL SENSE	2	U106.U206
5 5700-0	732 RTV RUBBER 10.3 OZ CLEAR		4
<u> </u>	7 32 THY HOOSEN TE.S OZ CECAN	ٿ	·
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1718 WEST	MISHAWA	KA RQAD	ELKHART.	INDIAN	48517	PHONE	[219)		
DRAWN	TLM	49-09-97	DWG.	NO.	4.5	5	HEET	5	REV (H)
PRDJ.	MD	350D0	71 0	21	40	S	MEET	8	ľW

SHEET S CONT. ON SMEET 8

		PARTS LIST	<del>`</del>
REF DES	E.P.N.	DESCRIPTION	MAP LOC.
1	102138-6	PWB, CE1000/CE2000 MAIN	
2	191916-1	LBL. BARCODE	
3	125242-1	CAP625ID X 1" VINYL	
C1	102466-1	10UF 250V 20% RADIAL T/R	J 1 *
C2	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	F 18 *
C3	125508-1	10UF 50V 20% 5MT AL ELEC T/R	I 8
C4	C 4477-3	470 UF 35V VERT	G 10
C5	C_4477-3	470 UF 35V VERT	G 10
C6	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	H 10 *
C7		1UF 50V CHIP CAP 10% 0805 X7R	H 10 *
C12	A11427-104K2	1UF 50V CHIP CAP 10% 0805 X7R	1 9 *
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	A 9
C22	C 7091-9	0.33 UF 50V Z5U CHIP CAP	N 9 *
C24	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	N 12 *
C25	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	09*
C26	□ 8576-8	100UF 35V 10% ALUM ELECT T/A	I 9
C27	C 5362-6	2.2UF 50V VERT ELECT T/A	H 10
C28		.1UF 50V CHIP CAP 10% 0885 X7R	J 9 *
C29	A11427-104K2	.1UF 50V CHIP CAP 10% 0805 X7R	19*
C101	162465-1	0.47UF 50V 20% RADIAL T/R	М 9
C182	A11427-103K2	.01 UF 50V 10% X7R MLC 0805	м э *
C103	102467-1	22UF 25V 20% RADIAL T/R	M 9
C104		100PF, 200V, . 0805	₩ 9 ¥
C105	C10208-4	100.UF 25V 20% RAD ELECT T/R	L 9
C106		56PF 202V 10% NPO 0805 T/R	L 9 *
C107		27PF 58V 10% NPO 0805 T/R	L 9 *
C10B		82PF 200V 10% NPO 0805 T/R	L 18 *
C109		.01 UF 50V 10% X7R MLC 0805	H 6 *
C110		470PF 50V 10% NPO 0805 T/R	м 7 *
C111		228PF 200V 10% NPO 0805 T/R	N 8 *
C112		.012 50V 10% X7R 0805 T/R	0 B *
C113	102468-1	47UF 18V 28% NP RAD T/R	N B
<u> 2114</u>	102468-1	47UF 10V Z0% NP RAD T/R	ВИ
C115		.01 UF 50V 10% X7R MLC 0805	NB*
C116		4700PF 50V 10% X7R 0805 T/R	N 7 *
C117		2700PF 50V 16% X7R 0805 T/R	<u> </u>
C118		.1UF 250V 10% MET POLY RADIAL	I B
C119		4700PF 50V 10% X7R 0805 T/R	I B *
C120	· · · ·	100PF 200V NPO 0805 T/R	I 7 *
C121	103191-1	0.47 UF 50V Z5U 1210 T/R	<u> </u>
122		1UF 50V CHIP CAP 10% 0805 X7R	F 8 *
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	<u> 69</u>
C124	103191-1	0.47 UF 50V Z5U 1210 T/R	L 9 *
C126		.1UF 50V CHIP CAP 10% 0805 X7R	N 10 *
C127		.1UF 50V CHIP CAP 10% 0805 X7R	M 9 #
C128		.1UF 50V CHIP CAP 10% 0805 X7R	M 10 *
C129		.1UF 50V CHIP CAP 10% 0805 X7R	м 9 *
C130	A11427-104K2	11F 50V CHIP CAP 10% 0805 X7R	H B *

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TLM 89-89-97 DWG. NO.

MD398DR 1 2 1 4 2 1718 WEST MISHAWAKA ROAD DRAWN PROJ.

(219) 294-9988 HEET 6 REV SHEET 6 CONT. ON SHEET 7 (H)

REF DES	ר ם א	PARTS LIST DESCRIPTION	MAP LOC.
		.1UF 50V CHIP CAP 10% 0805 X7R	G 7 *
C131		.1UF 50V CHIP CAP 10% 0805 X78	F 7 *
£132		.1UF 50V CHIP CAP 10% 0805 X7R	F 8 *
C133 C134		.001UF 50V 5% NPO MLC 0805 T/R	M 7 *
C135		100PF 200V NPO 0805 T/R	N 7 *
C136	103210-1	2.2UF 180V RADIAL T/R	17
<u>□138</u> □137	103210-1	2.2UF 160V RADIAL T/R	17
C138		82PF 200V 10% NPO 0805 T/R	M 7 *
C138		.1UF 50V CHIP CAP 10% 0805 X78	N B *
C140	C 7891-9	.33 UF SOV ZEU CHIP CAP	1 9
C201	102465-1	8.47UF 50V 20% RADIAL T/R	J 9
C202		.01 UF 50V 10% X7R MLC 0805	K 9 *
C203	102467-1	22UF 25V 20% RADIAL T/R	K 9
C204		180PF 200V NPO 0805 T/R	7 3 *
C205	C10208-4	100.UF 25V 20% RAD ELECT T/R	J g
C206		56PF 200V 10% NPO 0005 T/R	<del>                                     </del>
C207		27PF 50V 10% NPO 0805 T/R	7 3 7
C200		82PF 200V 10% NPO 0805 T/R	
C209		.01 UF 50V 10% X7R MLC 0805	J 10 *
C210		470PF 50V 10% NPO 0805 T/R	
C210		220PF 200V 10% NPO 0805 T/R	K7 *   K8 *
C212		.012 50V 10% X7R 0805 T/R	L 8 *
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	<del></del>
	-		K B
C215 C216		.01 UF 50V 10% X7R MLC 0805 4700PF 50V 10% X7R 0805 T/R	K B *
C217		2700PF 50V 10% X/R 0805 T/R	J 2 *
	C 8426-6		D 1 *
C218 C219		11UF 250V 10% MET POLY RADIAL 4700PF 50V 10% X7R 0805 T/R	I 1
C220		100PF 200V NPO 0805 T/R	
C221	103191-1	0.47 UF 50V Z5U 1210 T/R	D 2 *
			E 8 *
C222		.1UF 50V CHIP CAP 10% 0805 X7R	E 8 *
C223	C 9157-6	190UF 16V 20% NP ELEC RAD T/R	F 9
C224	103191-1	8.47UF 50V Z5U 1210 T/R	J 9 *
C226		.1UF 50V CHIP CAP 10% 0805 X7R	L 10 *
C227		.1UF 50V CHIP CAP 10% 0805 X7R	K 9 *
C228		.1UF 50V CHIP CAP 10% 0905 X7R	J 18 *
C229			J 9 *
C230		.1UF 50V CHIP CAP 10% 0805 X7R	E 8 *
C231		.1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
C232		.1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
C233		.1UF 50V CHIP CAP 10% 0805 X7R	D 8 *
C234		.001UF 50V 5% NPO MLC 0805 T/R	J 7 *
C235		100PF 200V NPO 0805 T/R	J 2 *
C236	103210-1	2. ZUF 160V RADIAL T/R	I 1
237		2.2UF 160V RADIAL T/R	I 1
238		82PF 200V 10% NPO 0805 T/R	J 7 *
C239		.1UF 50V CHIP CAP 10% 0805 X7R	E 7 *
C240	C 7091-9	.33 UF 50V Z5U CHIP CAP	7 9
01	C 2851-1	RECTIFIER. 1N4004 SILICON T/R	G 10

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TLM 99-99-97 DWG. NO. 1 2 DRAWN PROJ.

(219) 294-6888 HEET 7 REV ONT. ON H SHEET 7 CONT. ON SHEET 8



		PARTS LIST	·
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D2	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	G 10
DΘ	C 2B51-1	RECTIFIER, 1N4004 SILICON T/R	G 10
D4	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	C 10
D6	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	J 8
D7	C 2851-1	RECTIFIER, 1N4004 SILICON T/R	J 8
DØ	C 3549-0	DIODE, ZENER 10V 1N5240B T/R	JB
D9	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	19 *
D10	C 2851-1	RECTIFIER, 1N4884 SILICON T/R	I 10
D13	C 9203-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9 *
D1@1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	Ng *
D102	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9 *
D123	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9 *
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9 *
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 19 *
D106	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N B *
D107	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	N B *
D108	C 9293-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B *
D109	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B *
D110	C 9283-0	DIODE, 1N814/1N414B SOT-23 SMT	NB*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B *
D112	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B *
D113	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	N B *
D114	C10422-1	DIODE, 3A 400V IN5404 AXIAL	16
D115	C18422-1	DIODE. 3A 400V 1N5404 AXIAL	<del></del>
D1 18	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	I 5 G 8 *
D117	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	
	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	M 10 *
D118	C 9283-0	<del></del>	N 10 *
D119		DIODE, 1N914/1N4148 SOT-23 SMT	19*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	19*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	LB*
D122	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	M 12 *
D123	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	<u> </u>
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<u> </u>
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7 *
D125	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 7
D128	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	H 7 *
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7 *
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9 *
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9 *
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	78*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT~23 SMT	) g *
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 10 *
D206	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	кв *
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K B *
D208	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	K 8 *
D209	C 9283-0	DIDDE. 1N914/1N4148 SOT-23 SMT	K 8 *
D210	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K B *
D211	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8 *
D212	C 9283-0	DIODE, 1N914/1N4149 SOT-23 SMT	18 *
	C 9283-8	······································	L B *

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SHEET & REV CONT. ON SHEET 9

	<del>.</del>	PARTS LIST	•
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	13
D215	C10422-1	DIGDE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 5DT-Z3 5MT	€8 *
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 18 *
D218	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 10 *
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J. 9 *
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10 *
D223	€ 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	E 9 *
D224	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	E 7 *
D225	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	F 7 *
D228	C 9283-0	DIQDE. 1N814/1N4148 SDT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D228	C 9283-Ø	DIODE. 1N914/1N414B SOT-23 SMT	E 7 *
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7 *
E1	102476-1	LED. SMT R/A GREEN	1 1
E100	102477-1	LED. SMT R/A RED	<u> </u>
E101	102477-1	LED. SMT R/A GREEN	J 1
E102	102475-1	LED, SMT R/A RED	K 1
E200	102477-1	LED. SMT H/A RED	M 1
E200	102476-1	LED. SMT R/A GREEN	
E202	102477-1		<u> </u>
HS 1	102575-1	HS ASM. TZ NON-ISOLATED CH1.	M 1
HS2			L 5
HS3	102576-1 102573-1	HS ASM. TO NON-ISOLATED CHO.  HS ASM. TO ISOLATED CHO.	G 6
HS4	102574-1	<del></del>	<del></del>
	<del></del>	HS ASM, T2 ISOLATED CH2	G 3
HW1	102578-1	SPACER, 5 X 0.250 LONG, AL	N 6
HW2	102578-1	SPACER, 6 X 8.250 LONG, AL	J 5
EWH	102578-1	SPACER, 6 X 0.250 LONG, AL	N 3
HW4	102578-1	SPACER, 6 X 0.258 LONG, AL	1 3
HW5	102578-1	SPACER, 6 X 0.250 LONG, AL	16
HW6	102578-1	SPACER, 6 X 0.250 LONG, AL	D 5
HW7	102578-1	SPACER, 6 X 0.250 LONG, AL	I 3
HWB	102578-1	SPACER, 6 X Ø.250 LONG, AL	D 3
HW9	A10020-7	5-32 X 0.625 PCB CAPTIVE STUD	N B
HW1 Ø	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	J 5
HW11	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	В 3
HW1 2	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	13
HW13	A10020-7	5-32 X Ø 625 PCB CAPTIVE STUD	I 6
HW1 4	A10020-7	6-32 X Ø.625 PCB CAPTIVE STUD	D 5
HW15	A10020-7	6-32 X 0.625 PCB CAPTIVE STUD	I 3
HW16	A10028-7	6-32 X Ø.625 PCB CAPTIVE STUD	D 3
HW1 7	A11058-1	6-32 HEX NUT W/BELLEVILLE	N 6
HW1 B	A11056-1	6-32 HEX NUT W/DELLEVILLE	J 5
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	N 3
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	3 3
HW21	A11058-1	6-32 HEX NUT W/BELLEVILLE	15
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	D 5
HW23	A11956-1	6-32 HEX NUT W/BELLEVILLE	I 3
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	рЗ
J2	101573-1	HDR. 4 POS .1 CTR MTA SHRD	G 10
.13	102472-3	12POS . 100CTR ASSY SGL ROW	<u> </u>

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1718 WEST	MISHAWA	KA ROAD I	ELKHART. INDIANA 48517	PHONE (219) 294-0080
DRAWN	TLM	89-89-97		SHEET 9 REV
PROJ.	MĐ	39 <b>9</b> 06	102140	SHEET 18 H

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J4	101571-1	HDR. 2POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	N 19
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	100 د
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
K100	C10335-5	RELAY 30A 24V T90 SEALED CE	G 8
K200	C10335-5	RELAY 30A 24V T90 SEALED CE	€ 8
L100	C 3510-2	CHOKE, 10% AXIAL 478 UH TR	N 7
L101	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	_ I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
L200	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	J 1
L201	C 3510-2	CHOKE, 10% AXIAL 470 UH TR	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR NPN DARLINGTON 100V ZA	H 18
02	182479-1	PWR NPN DARLINGTON 100V 2A	I 10
0188	C 7448-1	MMBT3904 CHIP NPN	м9 *
0121	C 7448-1	MMBT3924 CHIP NPN	м 9 *
0182	C 9931-4	MMBT5007LT1 PNP XSISTOR 5DT-23	N 9 *
0103	102483-1	PNP 300V 500MA 5DT-23	L 10 *
0184	C 9252-5	2N3984 48V NPN TRANSISTOR T/A	1.6
0185	103193-1	50T-223 PNP 300V 500MA 50MHZ	M 8 *
0187	103192-1	SOT-223 NPN 300V 500MA 50MHZ	M 8 *
0108	102481-1	NPN 25V LOW NOISE 50T-23	N B *
0189	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B *
Q11B	103192-1	SOT-223 NPN 300V 500MA 50MHZ	N 7 *
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SCT-23	N 7 *
0112	1	INSTALLED ON THE PREVIOUS ASSEMBLY	N 7
0114		INSTALLED ON THE PREVIOUS ASSEMBLY	J 6
0115		INSTALLED ON THE PREVIOUS ASSEMBLY	K 5
0116	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	L 6
0117		INSTALLED ON THE PREVIOUS ASSEMBLY	L 5
0118		INSTALLED ON THE PREVIOUS ASSEMBLY	M 6
0119		INSTALLED ON THE PREVIOUS ASSEMBLY	N 5
0120	103193-1	SOT-223 PNP 300V 500MA 50MH2	17 *
Q121	100100	INSTALLED ON THE PREVIOUS ASSEMBLY	I 7
0123	<del>                                  </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	E 6
D124	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	E 5
0125	· ·	INSTALLED ON THE PREVIOUS ASSEMBLY	F 6
0125	+ · · · · · · · · · · · · · · · · · · ·	INSTALLED ON THE PREVIOUS ASSEMBLY	G 5
0127	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	H 6
Q12B	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	H 5
0129	C 7448-1	MMBT3904 CHIP NPN	G 9 *
0131	125106-1	MACSD 8 AMP 400V TRIAC	F 9
		<del> </del>	G 8
0132	102478-1	TRIAC DRIVER, SBS BV THRESH	M 9 *
0133	102480-1	MMBF4B56LT1 FET 25V SOT-23	M S "
	<del>                                     </del>		
	<del>                                     </del>	<del>                                      </del>	<del></del>
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TLM 99-99-97 DWG. NO. MD398D8 1 0 2 DRAWN 40 PROJ.

PHONE (219) 294-8888 SHEET (8 GONT. ON SHEET 1! SHEET 18 CONT. ON SHEET 11



REE DES	E.P.N.	PARTS LIST DESCRIPTION	MAP LOC.
0200	C 744B-1	MMBT3904 CHIP NPN	K 9 *
0201	C 7448-1	MMBT3904 CHIP NPN	K 9 *
1202	C 9931-4	MMBT5087LT1 PNP X515TDR SOT-23	L 9 *
1203	102483-1	PNP 300V 500MA SOT-23	J 18 *
0204	C 9252-5	2N3904 40V NPN TRANSISTOR T/A	1 3
2205	103193-1	50T-223 PNP 300V 500MA 50MHZ	18 *
2207	103192-1	SOT-223 NPN 300V 500MA 50MHZ	K B *
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 8 *
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K B *
0210	103192-1	SOT-223 NPN 300V 500MA 50MHZ	J 2 *
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2 *
2212	<u> </u>	INSTALLED ON THE PREVIOUS ASSEMBLY	J 2
0214	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	<u> </u>
2215	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	K 3
2216	<del></del>	INSTALLED ON THE PREVIOUS ASSEMBLY	<del>- Lis</del> -
2217	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	L 3
3217 3218	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	м 3
2219	<del>                                     </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	N 3
0219	100100-1	SOT-223 PNP 300V 500MA SOMHZ	<del></del>
0221	103193-1		D 2 *
	<del> </del>	INSTALLED ON THE PREVIOUS ASSEMBLY	_ D 2
0223		INSTALLED ON THE PREVIOUS ASSEMBLY	<u>E 3</u>
0224	ļ	INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
0225		INSTALLED ON THE PREVIOUS ASSEMBLY	F 3
0228	<del></del>	INSTALLED ON THE PREVIOUS ASSEMBLY	<u> </u>
0227		INSTALLED ON THE PREVIOUS ASSEMBLY	H 3
Q228	0.7112.4	INSTALLED ON THE PREVIOUS ASSEMBLY	H 3
0229	C 7448-1	MMBT3984 CHIP NPN	E 9 *
0231	125106-1	MACED 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER, SBS BV THRESH	FB
0233	102480-1	MMBF4858LT1 FET 25V 50T-23	18*
R1	A11371-2225	2.2K OHM 1W 5% 2512 T/R	J B *
R2	A11371-2225	2.2K OHM 1W 5% 2512 T/R	J 8 *
R3	A11371-3341	330 KOHM .1W 5% 0805 T/R	<u> </u>
R4	A11371-3313	330 OHM .25W 5% 1210 T/R	I 1 *
R5	A11368-82511	8.25KOHM 0.1W 1% CHIP 0805	
R6		8.87KDHM .1W 1% CHIP 0805	D 8 *
R7	A11371-2225	2.2K OHM 1W 5% 2512 T/A	J B *
R6	A11371-1022	1K .125W 5% CHIP RES T/R	H 9 *
R9	A11368-10021	10K 1/10W 1% SMD 0805 T/R	H 9 *
R10	A11368-20023	20.KOHM . 25W 1% 1210 T/R	* E H
R11	A11371-3341	330KOHM 0.1W 5% CHIP 0805	I 9 *
A12	A11368-68121	68.1KOHM 0.1W 1% CHIP 0805	19 *
R13	A11371-1011	100 OHM .1W 5% 0805 T/R	I 18 *
714	A11371-0R21	.20HM .1W 5% Ø8Ø5 T/A	I 10 *
715	A11371-0R21	.20HM .1W 5% 0805 T/R	I 10 *
₹16	A11371-3923	3.9K 0.25W 5% 1210 T/R	N 9 *
· <del>- · · · · · · · · · · · · · · · · · ·</del>	A11368-82511	8.25KOHM .1W 1% CHIP 0805	F 10 *
<b>31</b> .7			
₹1 <i>7</i> ₹1 <i>8</i>		8.25KOHM .1W 1% CHIP 0805	D 8 *

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TLM 89-89-97 DWG. NO.

MD398D9 1 2 1 4 0 MARIO PROJ.

1718 WEST MISHAWAKA ROAD

HEET 11 REV SHEET 11 CONT. ON SHEET 12

PHONE



DEE %55	IC B N	PARTS LIST	Tweetee
REF DES	<del></del>	DESCRIPTION	MAP LOC.
R20		57.6K, Ø.1ØW 1% MF Ø8Ø5	
R21	<del>•</del>	12.1K .1W 1% 0805 T/R	* e I
R22		392 KOHM .1W 1% 0805 T/R	
R23	A11368-39231		I 9 *
R24	A11368-57621		I 9 *
R25		100.KOHM .1W 1% CHIP 0005	N 9 *
R26	A11371-3341	330 KOHM .1W 5% 0805 T/R	A 10 *
R27	A11368-10021		L 9 *
RZB	A11371-7511	750 OHM .1W 5% 0805 T/R	L 9 *
R29	A11371-4751	4.7MEGOHM, 0.10W 5% MF 0805	<u> </u>
R100	102595-2	5K DETENT	L 1
R101		10K 1/10W 1% SMD 0805 T/R	M 10 *
R102	<del>-</del>	392 KOHM .1W 1% CHIP 0805	N 9 *
R103		499 OHM .1W 1% 0805 T/R	N 9 *
R104		10K 1/10W 1% SMD 0805 T/R	N 9 *
R105	A11371-6814	800 OHM .5W 5% 2010 T/R	<u> </u>
R106		1.KOHM .1W 1% CHIP 0805	м 9 *
R107		10K 1/10W 1% SMD 0805 T/R	L 10 *
R108		10K 1/10W 1% SMD 0805 T/R	L 10 *
R109		19.1KOHM .125W 1% CHIP RES	мя *
R110		1.KOHM . 1W 1% CHIP 0805	<u> </u>
R111		10K 1/10W 1% SMD 0805 T/R	<u> </u>
R112		19.1KOHM .125W 1% CHIP RES	L
R113	<del>  </del>	5.11KOHM .1W 1% 0805 T/R	L 10 *
R114	A11368-82511		L 10 *
R115	A11368-68121		L 10 *
R116	A11368-22601		M 9 *
R117	A11371-3341	330 KOHM .1W 5% 0805 T/R	* E M
R119	A11371-3333	33 KOHM . 25W 5% 1210 T/R	M 9 *
R120	A11368-90921		М 9 +
R122	A11368-15831	158KOHM .1W 1% 0895 T/A	N 9 *
R123	A11368-10031	100.KOHM .1W 1% CHIP 0805	* E M
R124	A11358-15831	158KOHM .1W 1% 0805 T/R	м в *
R125	A11368-10031	100.KOHM .1W 1% CHIP 0805	_ N 9 *
R126	A11368-39231	392 KOHM .1W 1% 0805 T/R	м 9 *
R127	A11371~6821	6.8KOHM .1W 5% CHIP 0805	N 9 *
R128	A11371-6814	580 DHM .5W 5% Z010 T/R	j 1 *
R129	A11371-8211	820 DHM .1W 5% 0805 T/R	N 7 *
R130		DO NOT INSTALL	08*
R131	L	DO NOT INSTALL	08*
R132	A11371-2223	2.2K 0.25W 5% 1210 T/R	н в *
R133	A11371-7511	750 OHM .1W 5% 0805 T/R	Н6 *
R134	C10613-5	1 KOHM TOP ADJUST TRIMMER T/A	МВ
R135	A11371-3923	3.9K .25W 5% 1210 T/R	M 7 *
R136	A11371-8201	82 OHM .1W 5% 0805 T/R	M 7 *
R137	A11368-4990.	<del> </del>	N 8 *
R136		120 OHM .25W 5% 1210 T/R	N 8 *
R139		107 OHM . 25W 1% 1210 T/R	N 8 *
		33 KOHM . 25W 5% 1210 T/R	N 8 *

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TLM 99-99-97 DWG. NO. MD39809 1 2 1 4 2 DRAWN PROJ.

PHONE 1219) 294-8888

SHEET 12

CONT. ON
SHEET 13 SHEET 12 CONT. ON SHEET 13



	C D N	DECORPTION	WELOC
REF DES		DESCRIPTION 820 OHM .1W 5% 0805 T/R	MAP LOC.
R141	A11371-8211	4.7K OHM 0.5W 5% 2010 T/R	08*
R142	A11371-4724	33 KOHM .25W 5% 1210 T/R	N 8 *
R143 R144	A11371-3333 A11371-1213	120 OHM .25W 5% 1210 T/R	NB*
			N 8 *
R145	A11368-75RØ3	75 DHM .25W 5% 1210 T/R 13KOHM .1W 5% 0805 T/R	
R146	A11371-1331		N 7 #
R147	A11371-1911	100 OHM .1W 5% 0805 T/R 180 OHM .1W 5% 0805 T/R	M 7 *
R148	A11371-1811 A11371-5R63	5.6 OHM .25W 5% 1210 T/R	N 7 *
R152			K 7 *
	103199-1		<del></del>
R153 R154	103199-1 103199-1		K 6 *
R155	103199-1	0.4. 1W, 5%, 2512	M 6 *
R156	103199-1	0.4, 1W, 5%, 2512	M 7 *
R157	103199-1	0.4, 1W, 5%, 2512	N 6 *
R158 R159	A10266-2R74	2.7 OHM 2W 5% CF T/R	I B
<del></del>	103199-1	0.4. 1W. 5%, 2512	<del></del>
R160	A11371-1501	15 OHM .1W 5% 2805 T/A	I 6 *
R161	A11371-1331	13KOHM .1W 5% 0905 T/A	H 7 *
R162	A11371-4701	RES, 47 OHM .1W 5% CHIP 0805	H 7 *
R163	A11371-1811	180 OHM .1W 5% 0805 T/R	17*
	A11371-5R63	5.6 OHM .25W 5% 1210 T/R	I 5 *
R167	103199-1	0.4. 1W. 5%, 2512	
R168	103199-1	0.4. 1W. 5%, 2512	F 6 *
R165	103199-1	0.4. 1W. 5%. 2512	F 7 *
R170	103199-1	0.4, 1W, 5%, 2512	G 5 *
R171	103199-1	0.4, 1W, 5%, 2512	<u> </u>
R172	103199-1	0.4.1W, 5%, 2512	<u> </u>
R174	A11371-4751	4.7MEGOHM. 0.10W 5% MF 0805	<u> </u>
R175		5.11KOHM .1W 1% 0805 T/R	<u> </u>
R176	<del></del>	10K 1/10W 1% SMD 0805 T/R	* 8.2
R177		10K 1/10W 1% SMD 0805 T/R	H 8 *
R178		90.9K. 0.10W 1% MF 0805	N 9 *
R179		100.KOHM .1W 1% CHIP 0805	F 7 *
R180	A11368-39231		G B *
R181	A11371-6814	680 DHM .5W 5% 2010 T/R	<u> </u>
R182		10K 1/10W 1% SMD 0805 T/R	F 8 *
R183		100.KOHM .1W 1% CHIP 0805	F B *_
R184	*****	20.0KOHM .25W 1% 1210 T/R	F 9 *
R185		10K 1/10W 1% SMD 0805 T/R	G 8 *
R186		100.KCHM .1W 1% CHIP 0805	N_10 *
R187		158KOHM .1W 1% 0805 T/R	M 10 *
R168	A11368-15831	158KOHM .1W 1% 0805 T/R	M 12 *
R189		100.KOHM .1W 1% CHIP 0805	M 10 *
R190		57.6K, .1W, 1%, CHIP	N 5 *
R191	A11368-22601	226 OHM 0.1W 1% 0805 T/R	N.6.*
R192	A11371-4751	4.7MEGOHM. 0.10W 5% MF 0805	L9*

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DRAWN TLM 89-89-97 DWG. NO.
PAGJ. MD398D8 102140

INC .
E (219) 294-8688
SHEET 13 REV
CONT. ON SHEET 14

DEC DEC	C D N	PARTS LIST	144B + 00
REF DES		DESCRIPTION	MAP LOC.
R193		10K 1/10W 1% SMD 0805 T/R	N 9 *
R194	A11371-8201	82 OHM .1W 5% 0805 T/R	M 7 *
R195	A11371-8211	820 OHM .1W 5% 0805 T/R 5K, , DETENT	N 3
R200	102595-2		<del></del>
R201	<del></del>	10K 1/10W 1% SMD 8805 T/R	K 10 *
R202	A1136B-39231		L 9 *
R203		499 OHM .1W 1% 0805 T/R	L 9 *
R204		10K 1/10W 1% SMD 0805 T/R	L 9 *
R205	A11371-6814	680 OHM .5W 5% 2010 T/R	M 1 *
R206	<del></del>	1.KOHM .1W 1% CHIP 0805	J 9 *
R209		19.1KOHM .125W 1% CHIP RES	K 9 *
R210		1.KOHM .1W 1% CHIP 0805	<u> 19*</u>
R211		10K 1/10W 1% SMD 0805 T/R	
R212	<del> </del>	19.1KOHM .125W 1% CHIP RES	J 9 *
R213		5.11KOHM .1W 1% 0805 T/R	J 10 *
R214		8.25KOHM .1W 1% CHIP 0805	J 10 *
R215		68.1KOHM 0.1W 1% CHIP 0805	J 10 *
R216		226 DHM 0.1W 1% 0805 T/R	K 9 *
R217	A11371-3341	330 KOHM .1W 5% 0805 T/R	19*
R219	A11371-3333	33 KOHM .25W 5% 1210 T/A	19*
R220	<del></del>	90.9K, 0.10W 1% MF 0805	K 9 *
R222	A11368-15831	158KOHM .1W 1% 0805 T/R	K 9 *
R223		100.KDHM .1W 1% CHIP 0805	K 9 *
R224	A11368-15831	158KOHM .1W 1% 0805 T/A	K 5 *
R225	A11368-10031	100.KDHM .1W 1% CHIP 0805	L 9 *
R226	A11368-39231	392 KOHM ,1W 1% 0805 T/R	K 9 *
R227	A11371-6821	6.8KOHM .1W 5% CHIP 0805	K 9 *
R228	A11371-6814	680 DHM .5W 5% 2010 T/A	M 1 *
R229	A11371-8211	820 DHM .1W 5% 0805 T/R	K 7 *
R230		DO NOT INSTALL	L B *
R231		DO NOT INSTALL	L 8 *
R232	A11371-2223	2.2K 0.25W 5% 1210 T/R	нз*
R233	A11371-7511	750 CHM .1W 5% 0805 T/R	н э *
R234	C10613-5	1 KOHM TOP ADJUST TRIMMER T/R	J 8
R235	A11371-3923	3.9K .25W 5% 1210 T/R	J 7 *
R238	A11371-8201	82 OHM .1W 5% ØBØ5 T/R	J 7 *
R237	A1136B-499Ø1	499 OHM .1W 1% 0805 T/A	KB*
R238	A11371-1213	120 OHM . 25W 5% 1210 T/R	K 8 *
R239	A1136B-10703	107 DHM .25W 1% 1210 T/R	K 8 *
R24Ø	A11371-3333	33 KOHM . 25W 5% 1210 T/R	K B *
R241	A11371-8211	620 DHM . (W 5% 0805 T/R	₽8 #
R242	A11 <u>371-4724</u>	4.7K DHM 0.5W 5% 2010 T/R	L 8 *
R243	A11371- <u>3</u> 333	33 KOHM . 25W 5% 1210 T/R	K 8 *
R244	A11371-1213	120 OHM . 25W 5% 1210 T/R	K 8 *
R245	A11371~75FØ3	75 DHM . 25W 5% 1210 T/R	K 8 *
R245	A11371-1331	13KOHM .1W 5% 0805 T/R	J 2 *
R247	A11371-1011	100 OHM , 1W 5% 0805 T/R	J 2 *

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TLM 99-99-97 DWG. ND. MD390D0 1 2 DRAWN 140 PROJ.

1718 WEST MISHAWAKA ROAD \_

(219) 294-8688 HEET 14 HEV ONT, ON HEET 15 SHEET 14 CONT, ON SHEET 15

PHONE

		PARTS_LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R248	A11371-1811	180 OHM . I W 5% 0805 T/R	K 2 *
R25Ø	A11371-5R63	5.6 OHM .25W 5% 1210 T/R	J 2 *
R252	1031 <u>99-1</u>	0.4, 1W, 5%, 2512	K 4 *
R253	103199-1	0.4. 1W. 5%. 2512	к э *
R254	103199-1	0.4. 1W. 5%. 2512	L 4 *
R255	103199-1	D. 4. 1W. 5%. 2512	M 3 *
R256	103199-1	0.4. 1W, 5%, 2512	N 4 *
R257	1 <u>03199-1</u>	0.4. 1W, 5%, 2512	N 3 *
R258		DO NOT INSTALL	<u> </u>
R259	103199-1	0.4. 1W, 5%. 2512	D 4 *
R26Ø	A11371-1501	15 OHM .1W 5% 0805 T/R	_ D 1 *
R261	A11371-1331	19KDHM .1W 5% 0805 T/R	£ 2 *
R252	A11371-4701	RES, 47 OHM 1W 5% CHIP 0805	E 2 *
R263	A11371-1811	180 CHM . 1W 5% 0805 T/R	E 2 *
	A11371-5R63	5.6 OHM .25W 5% 1210 T/R	E 2 *
R267	103199-1	2.4. 1W. 5%. 2512	E 4 *
R268	103199-1	0.4, 1W. 5%, 2512	_ F 3 *
R269	103199-1	0.4, 1W, 5%, 2512	F 4 *
R278	103199-1	0.4, 1W. 5%, 2512	63 *
R271	103199-1	@.4, 1W, 5%, 2512	H 4 *
R272	103199-1	0.4, 1W, 5%, 2512	<u> </u>
R274		4.7MEGOHM, 0.10W 5% MF 0805	EB*
R275		5.11KOHM .1W 1% 0805 T/R	E*
R276		10K 1/10W 1% SMD 0805 T/R	£ 8 *
R277		10K 1/10W 1% SMD 0005 T/R	E 8 *
R278		90.9K, 0.10W 1% MF 0805	L9 *
R279		100.KOHM .1W 1% CHIP 0805	E 7 *
RZ8Ø	<del></del>	392 KOHM .1W 1% 0805 T/R	<u> </u>
R281	A11371-6814	680 OHM .5W 5% 2010 T/R	M 1 *
R202		10K 1/10W 1% SMD 0805 T/R	D 8 *
		100.KOHM .1W 1% CHIP 0805	D B *
R284		20.8KOHM .25W 1% 1210 T/R	F 9 *
R285		10K 1/10W 1% SMD 0805 T/R	F 6 *
R286		100.KOHM .1W 1% CHIP 0805	L 10 '
R287		158KOHM . IW 1% 0805 T/R	K 10 *
R288		158KOHM . 1W 1% 0805 T/R	K 10 1
R289		180.KOHM .1W 1% CHIP 0805	K 10 1
		57.6K, .1W. 1%, CHIP	N 3 *
R291		226 DHM 0.1W 1% 0805 T/R	N 3 *
R292	A11371-4751	4.7MEGOHM, Ø.10W 5% MF Ø8Ø5	J 9 *
R293		10K 1/10W 1% SMD 0805 T/R	K 5 *
R294	A11371-8201	82 OHM .1W 5% 0805 T/R	- <del></del>
R295	A11371-8211	820 OHM . IW 5% 0805 T/R	J 7 *
R399	103199-1	Ø. 4. 1W. 5%. 2512	D 7 *
R301	103199-1	0.4, 1W, 5%, 2512	J 7 *
R30 <u>2</u>	103199-1	0.4. 1W. 5%, 2512	K 6 *
R303	103199-1	0.4, 1W, 5%, 2512	L 7 *
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DRAWN TLM 89-89-97 DWG. NO.

PROJ. MD398D8 1 2 1 4 2

JAL INL.

PHONE (219) 294-8988

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	·	PARTS LIST	1846 186
REF DES		DESCRIPTION	MAP LOC.
R304	103199-1	0.4. 1W. 5%, 2512	. M 6 *
R305	103199-1	0.4, 1W, 5%, 2512	M 7 *
R306	103199-1	0.4, 1W, 5%, 2512	N 5 *
R307	103199-1	0.4, 1W, 5%, 2512	E 7 *
8308	103199-1	0.4. 1W, 5%, 2512	F 5 *
R309	103199-1	2.4, 1W, 5%, 2512 2.4, 1W, 5%, 2512	57 *
R310	103199-1		
R311	103199-1	0.4. 1W. 5%, 2512 0.4. 1W. 5%, 2512	G 7 *
R312	103199-1		67*
R313	A11368-19021	10K 1/10W 1% SMD 0005 T/R	
R314	A11371-3341	330 KOHM .1W 5% 0805 T/R	G 7 * H 7 *
R315	A11368-51111	5.11KOHM .1W 1% 0805 T/R	
R316	A11368-10021	10K 1/10W 1% SMD 8005 T/R	M 10 *
R317	A11371-3934	39K .5W 5% 2010 SMT T/R	N 7
A318	A11371-3934	39K .5W 5% 2010 SMT T/R	N 8
R319	A11271-2712	DO NOT INSTALL	M 10 *
R322	A11371-2713	278 OHM .25W 5% 1218 T/R	L 9
R323	A11371-0R02	0 OHM .125W 5% CHIP RES T/R	G 7
R400	123199-1	0.4. 1W. 5%, 2512	D 4 *
R401	163199-1	0.4. 1W. 5%. 2512	<u> </u>
R402	103199-1	Ø.4. 1W, 5%, 2512	K 3 *
R403	103199-1	0.4, 1W, 5%, 2512	L 4 *
R404	103199-1	0.4. 1W. 5%, 2512	M 3 *
R405	103199-1	Ø.4. 1W. 5%. 2512	M 4 *
R406	103199-1	0.4. 1W. 5%, 2512	N 3 *
R407	103199-1	Ø.4. 1W. 5%, 2512	E 4 *
R408	103199-1	0.4. 1W. 5%, 2512	F 3 *
R409	103199-1	Ø.4, 1W, 5%, 2512	G 4 *
R410	103199-1	0.4. 1W, 5%, 2512	G 3 *
R411	103199-1	Ø.4, 1W, 5%, 2512	H 4 *
R412	103199-1	Ø.4. 1W, 5%, 2512	13*
R413		10K 1/10W 1% SMD 0005 T/R	E 7 *
R414	A11371-3341	330 KOHM .1W 5% 0B05 T/R	E 7 *
R415	A11358-51111	5.11KOHM .1W 1% 0805 T/R	E 7 *
R416	A11368-10021	10K 1/10W 1% SMD 0605 T/R	K 10 *
R417	A11371-3934	39K .5W 5% 2010 SMT T/R	K 7
R41B	A11371-3934	39K .5W 5% 2010 5MT T/R	KB
R419		DO NOT INSTALL	K 10 *
R420	A11371-5R65	5.6 DHM 1W 5% 2512 T/R	H 2 *
R421	A11371-5R65	5.6 OHM 1W 5% 2512 T/R	H 2 *
R422	A11371-2713	270 DHM . 25W 5% 1210 T/R	1 9
R423	A11371-0R02	Ø OHM .125W 5% CHIP_RES T/R	F 7
5:00	102488-1	SPDT HORIZ SLIDE	L. 10
TP3B	C 9896-9	TEST POINT PCB . 1" CTR LOOP	K 2
TP39	C 9896-9	TEST POINT PCB .1" CTR LOOP	N 7
U1	C 5095-2	MC7815CT +15V. REG	H 10
UZ	C 5095-0	MC7915CT -15V. REG	Н 9
n3	102486-1	OPTO BLT NPN SOIC-B CTR-100%	N 12
U4	C 8262-5	MC33978D LOW NOISE DUAL OF AMP	I 9.

	CROWN	INTE	RNATIO	INAL	INC.
1718	WEST MISHAWAKA RO	TELKHART.	INDIANA 46517	PHONE	(219) 294-98

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TLM 89-89-97 DWG. NC.
MD398D8 1 2 2 DRAWN PACJ.

INL .
(219) 294-9888
-ET 18 REV SHEET 18 CONT. ON SHEET 17



<del>-</del>		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
บร	C 8262-5	MC33078D LOW NOISE DUAL OF AMP	N B
Uix _	C 9918-1	TO220 VERT_CLIP-ON HEATSINK	H 19
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н 9
U100	C 7816-9	VACTEC VTL5C2 OPTO-CELL	M 8
U101	C 9012-3	OP AMP. QUAD LO NOISE MC33079D	M 10
⊔102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	В И
U104	C 9038-8	COMPARATOR, QUAD LM339D 50-14	G 7
U105	C 8262-5	MC33078D LOW NOISE DUAL OF AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	C 7816-9	VACTEC VTL5C2 OPTO-CELL	Κ 5
U201	C 9012-3	OP AMP, QUAD LO NOISE MC33079D	10 د
U202	C 9030~0	COMPARATOR, QUAD LM339D 50-14	к 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D LOW NOISE DUAL OF AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	ΝЭ
WP1		WIRE, 16 RED 3/16" X 5 X FAST	A 18
WP2		WIRE, 14 BLK/WHT 3/16 X 5.0 X TAB	A 10
WP3		WIRE, 16 BLU 3/16" X 5 X FLAG	A 19
WP4	101031-1	0.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	0.250 FASTON, AUTO INSERTABLE	D 4
WP6		WIRE, 22 WHT 3/16X14 X FAST	3 8
Z1		REFERENCE FOR SOLDER PAD LOCATION	E 9
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INTERNATIONAL CROWN INC. PHONE 1718 WEST MISHAWAKA ROAD

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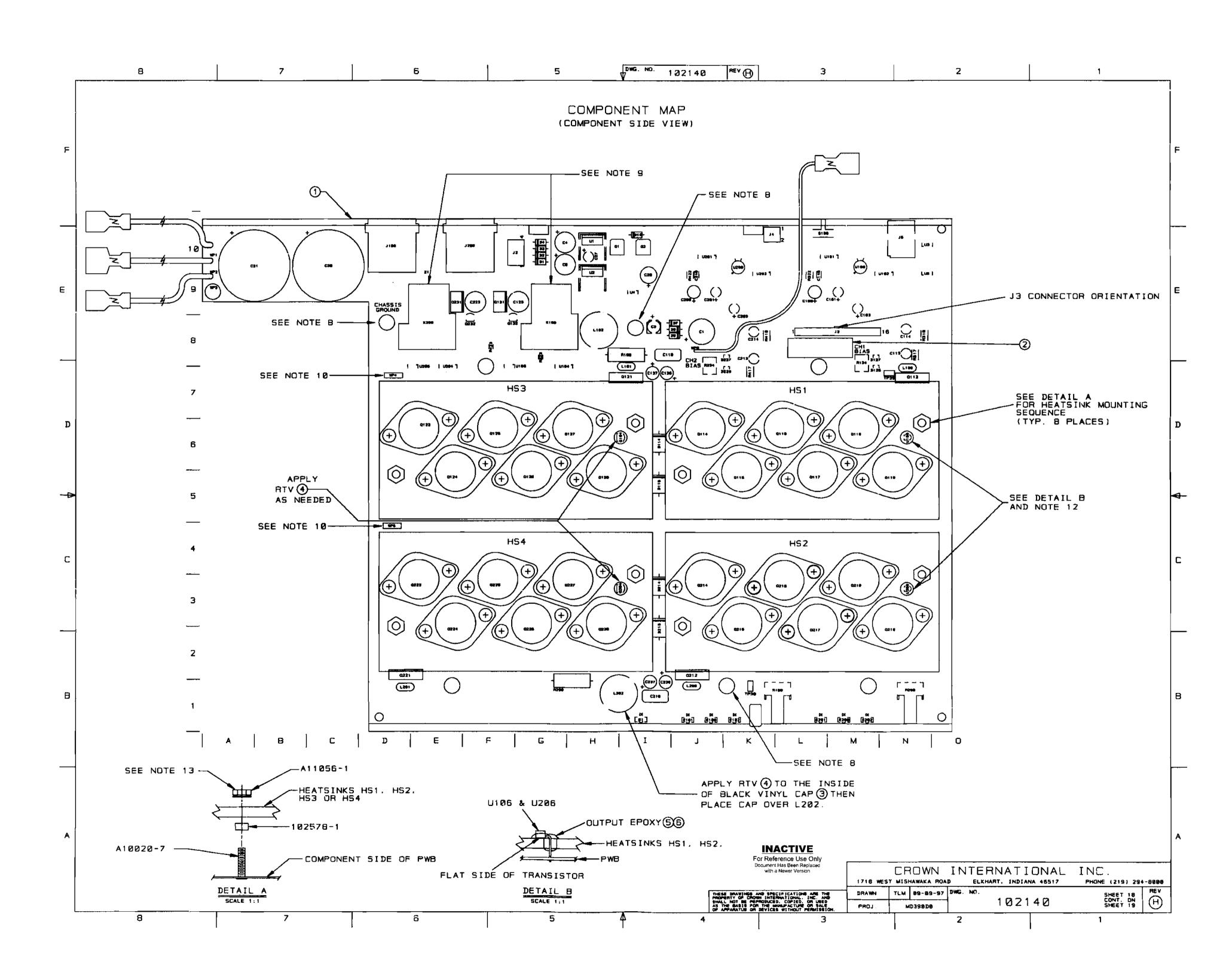
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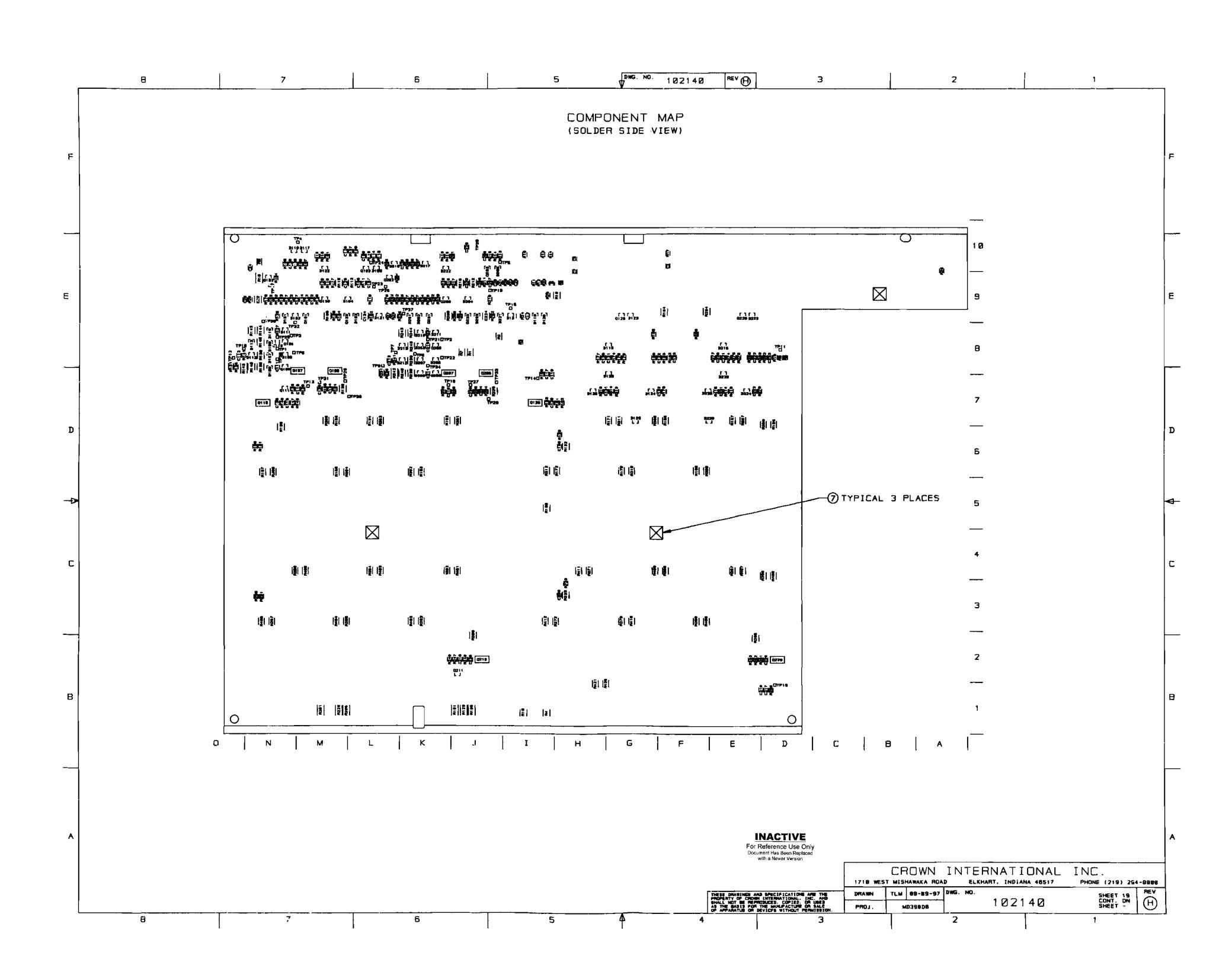
(219) 294-8888 HEET 17 REV ONT. ON HEET 18 SHEET 17 CONT. ON SHEET 18



# **Component Map**

for use with Main PWA #102140-6





E.C. ZONE		DEV	PECCAIRTION	20.75	-	A	PPR(	DVAL	5		
L	E. L.	ZUNE	MEV.	DESCRIPTION	DATE	ÐΥ	ĽН	ME	ĘΕ	PE	
			*	PRODUCTION RELEASE (LEVEL I)	9-24-98	JFL	KLW			TS	Ì
	98 <b>6078</b> 1		B	DELETED NOTE 3. CHANGED NOTE 10. ADDED NOTES 14.15. ADDED 127023-1. C606.C607 WERE 0.1MF. J500.J600 WERE 125365-1. L100.L101.L200.L201 WERE C 35100-7. R6 WAS 8.87K. R18 WAS 8.25K. R29 WAS 4.7M. 5100 WAS LISTED AS DPDT. U100.U200 WERE 102723-1.	12/14/98	WAL	J.			S)	(

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-8.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTFULLY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A, REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
    - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

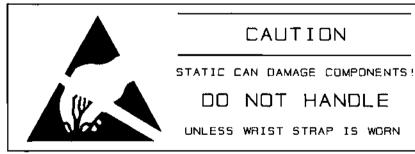
APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE

LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

(NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)

- 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
  - TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP 14. LABEL INPUT PWA WITH CPN 125883-1 ON COMPONENT SIDE.
- 15. APPLY GENEROUS COAT OF 127023-1 OVERCOAT TO PARTS C121.C124.C221.C224. COVER ADJACENT PARTS.



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			RΟV	VN II	1		RNAT	$I \cup NA$	L INC	
PRIN	ITS TO	1718 WEST	MISHAWA	KA ROAD	ELKH	ART.	INDIANA 469	517	PHONE (219) 29	4-8822
K		P	WA,	MA I N/	IN	PUT	CE20		TOL.UNLESS SPEC X.XX = ± X.XXX = ± DRILLS • ±	0.020 0.010
		DRAWN	JFL	9-24-98	A	PPRO	VED BY:	מא סג	T SCALE PRIN	IT
		CHECKED	KLW	09/24/96	ME			SUPERSED	€5	
		SCALE	N	IONE	EE			E.C.		
		PROJ #	МD	390 D0	PE	TS	09/23/90	DWG. NO.	SHEET   OF 20	REV
		FILENAME	ILENAME:102140-8_A.PCB			CT AS	5M:	102140-B (B)		

PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9. HW1 0. HW1 1. HW1 2, HW1 3, HW1 4.				
			HW15, HW16				
A10265-19121	19.1K 0.25W 1% MF	2	R112.R212				
A10266-2R74	2.7 OHM 2W 5% CF	1	R158				
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218				
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21.				
			HW22. HW23, HW24				
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101.R106.R110.R201.R206,				
			R210, R316, R416				
A11368-10021	10K 1/10W 1% CHIP 0805	34	R9, R27, R104, R107, R108, R111,				
			R121, R176, R177, R182, R185,				
			R193.R204,R211,R221,R276,				
			R277.R282.R285.R293.R313,				
		_	R413.R500.R501,R502.R503.				
	-		R504, R506, R600, R601, R602,				
	· · · · · · · · · · · · · · · · · · ·		R603. R604. R606				
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,				
X11300 18031	TEER E. IV 12 CHILL EGGS	, ,	R183, R186, R189, R223, R225.				
		_	R279, R283, R286, R289				
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118, R218				
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139.R239				
			R21				
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	<u> </u>					
A11368-15 <u>831</u>	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,				
11/200 /0100	40 4K 0 425W 4K CUITE 120C	<u> </u>	R224, R287, R288				
A11368~19122	19.1K 0.125W 1% CHIP 1206	2	R109.R209				
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284				
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4_	R116,R191,R216,R291				
A11368~39231	392K 0.10W 1% CHIP 0805	8	R22,R23,R102,R126,R180,R202,				
144000 40001	400 000 0 400 12 5075 8085		R226. R280				
A11368-49901	499 OHM 0.10W 1% CHIP 0805	4	R103, R137, R203, R237				
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113.R175.R213.R275.R315.R415				
A11368-57621	57.6K Ø.10W 1% CHIP 0805	4	R20, R24, R190, R290				
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215				
A11368-71511	7.15K Ø.1W 1% CHIP 0805	1	R18				
A11368~75RØ3	75 OHM Ø.25W 1% CHIP 1210	2	R145.R245				
A11368-76811	7.68KOHM 0.10W 1% SMT 0805	1	R5				
A11368~82511	8.25K Ø.1W 1% CHIP ØBØ5	3	R17,R114,R214				
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278				
A11368-93111	9.31K Ø.1W 1% CHIP 0805	1	R6				
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234				
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602				
A11369-270K2	27PF 50V 10% NPO 0005 T/R	2	C107.C207				
A11369-330J2	33PF 50V 5% NPO MLC 0805	2_	C142, C242				
A11369-471K2	470PF 50V 10% NPO 0805 T/A	4	C110.C141.C210.C241				
A11371-0R02	0.0 OHM JUMPER CHIP 1206	2	R323.R423				
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	2	814, R15				
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13.R147.R247				
A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	2	R322. R422				
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8				
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138.R144.R238.R244				

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1718 WEST MISHAWAKA ROAD
DRAWN JFL 9-24-98

MD390D0

PRQJ.

ELKHART, INDIANA 46517 DWG. NO.

PHONE (219) 294-8888 SHEET 2 OF 20 RE



PARTS LIST						
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261			
A11371-1501	15 OHM 0.10W 5% CHIP	4	C605.C607,R160.R260			
A11371-1811	180 OHM 0.10W 5% CHIP	4	R149, R163, R249, R263			
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232			
A11371-2225	2.2K 1W 5% CHIP 2512	3	R1, R2, R7			
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4.R19			
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119.R140,R143,R219.R240.R243			
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11.R26.R117.R217.R314.			
<u>'</u>			R414			
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235			
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418			
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162.R262			
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142.R242			
A11371-4751	4.7M 0.10W 5% CHIP 0805	4	R174,R192,R274,R292			
A11371-5R63	5.6 0.25W 5% CHIP	4	R150.R165.R250.R265			
A11371-5R65	5.6 GHM 1W 5% CHIP 2512	2	R420,R421			
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105.R128.R181.R205.R228.R281			
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227			
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233			
A11371-8201	82 OHM Ø 10W 5% CHIP	4	R136.R194.R236.R294			
A11371-B205	82 OHM 1W 5% CHIP 2512	1	R607			
A11371-8211	820 OHM 0.10W 5% CHIP	8	R129,R141,R195,R229,R241,R295			
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1			
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3			
A11427-103K2	Ø. Ø1MF 50V 10% CHIP Ø805	5	C102,C109,C115,C202,C209,C215			
A11427-104K2	0.1 MF 50V 10% 0805	32	C2, C6, C7, C12, C24, C25, C28, C29,			
7111127 70112	<u> </u>		C122, C126, C127, C128, C129.			
			C130,C131,C132,C133,C139,			
			C222, C226, C227, C228, C229,			
			C230.C231,C232.C233,C239,			
			C505.C506.C605.C60B			
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112.C212			
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117.C217			
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219			
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST		WP6			
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10			
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100, L101, L200, L201			
C 3549-Ø	DIODE ZENER. 10V, 1N5240B	1	D8			
C 3679-5	33UF 50V 20% VERT ELECT	1	C31			
C 4477-3	470 MF 35V VERT	2	C4, C5			
C 5095-2	POS. 15 VOLT REG.	1	U1			
C 5096-0	NEG. 15 VOLT REG.	1	U2			
C 5362-6	2.2 MF 50V VERT	1	C27			
C 7091-8	0.33 MF 50V CHIP 1206	3	C22, C140, C240			
C 7448-1	MMBT3904 CHIP NPN	6	0100,0101,0129,0200,0201,0229			
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4, U5, U105. U205			
C 8576-8	100 MF 35V 10% ELEC	1	C26			
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500			
-						

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DRAWN JFL 9-24-98 PROJ. мрээ@р@

1718 WEST MISHAWAKA ROAD

PHONE (2191 294-8000 SHEET 3 OF 20 REV DWG. NO. 102140-8



PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104.U202,U204				
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223				
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204				
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	54	D9, D13, D101, D102, D103, D104,				
			D105, D106, D107, D108, D109,				
<del></del>			D110.D111,D112,D113.D116,				
	-		D117.D118.D119.D120.D121.				
			D122, D123, D124, D125, D126,				
			D127.D128.D129.D201.D202.				
			D203.D204.D205.D206.D207.				
			D208. D209. D210. D211. D212.				
		-	D213, D216, D217, D218, D221,				
			D222. D223. D224. D225. D226.				
			D227, D228, D229				
C 9896-9	TEST POINT LOOP	2					
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	⊔1 X, U2 X				
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102.Q109.Q111.Q202.Q209.Q211				
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205				
C10422-1	DIDDE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215				
	1K TOP ADJUST TRIMMER T/R	2	R134, R234				
C10613-5	8200UF 110VDC ELECTROLYTIC	2	C20.C21				
D 8917-3							
H42902-9	ASM, THERMAL SENSE	2	U106,U206				
5 5700-0	732 RTV RUBBER 10.3 OZ CLEAR	0	4				
101016-1	LBL. BARCODE, , ,	1	2				
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7				
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4				
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2				
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5				
102138-8	PWB. CE1000/CE2000 MAIN/INPU	1	1				
102438-101K2	100PF 200V 10% NPO 0805	6	C104.C120.C135.C204.C220.C235				
102438-221K2	220PF 200V 10% NPO 0805	2	C111, C211				
102438-560K2	56PF 200V 10% NPO 0805	4	C106. C206, C504, C604				
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238				
102465-1	.47UF 50V 20% RADIAL T/R	2	C101, C201				
102466-1	10UF 250V 20% RADIAL T/R	1	C1				
102467-1	22MF 25V 20% RAD T/R	4	C103.C203,C503,C603				
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214				
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202				
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J5@2				
102472~3	HDR, 16POS .100 CTR SGL ROW	1	13				
102473-1	SPEAKON, 4 POLE PCB HDRZ	2	J100, J200				
102475-1	BLOCK, 5 POS TERMINAL	1	TB1				
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201				
102477-1	LED. SMT R/A RED	4_	E100,E102,E200,E202				
102478-1	TRIAC DRIVER SBS 8V THRESH	2	0132,0232				
102479-1	PWR MJD112 NPN DARLINGTON 10	2	01,02				
102480-1	FET. N-CH 25V 50MA SOT-23	2	Q133,Q233				
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q208				

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 JFL 9-24-98 DRAWN PROJ. MD3SØDØ

PHONE (219) 294-8000 SHEET 4 OF 20 RE DWG. NO. 102140-8

REV (B)

PARTS LIST							
C.P.N.	DESCRIPTION	ΩTY	REFERENCE DESIGNATION				
102483-1	PNP 300V 500MA SDT-23	2	0103.0203				
102486-1	OPTO BJT NPN SOIC-B CTR =100	1	U3				
102488-1	SPDT VERT SLIDE 12MM SHAFT	1	S100				
102573-3	HS ASM, T2 ISOLATED CH1, , .	1	HS3				
102574-3	HS ASM. T2 ISOLATED CH2	1	HS4				
102575-3	HS ASM, T2 NON~ISOLATED CH1,	1	HS1				
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	H52				
102578-1	SPACER, 6X.125 AL BLK ANODIZ	В	HW1.HW2.HW3,HW4,HW5.HW6,HW7,				
			HWB				
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26				
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100.R200				
102723-2	OPTO CELL ON-500 OHM	2	U100.U200				
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7				
103191-1	Ø.47UF Z5U 1210 20% 50V	4	C121,C124,C221,C224				
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107.Q110.Q207,Q210				
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	0105.0120.0205.0220				
103199-1	Ø.4 OHM 1W 5% 2512 T/R	52	R152,R153,R154,R155,R156,				
103133 1	3, 4 3, m + 1, 3, 23 + 2 + 7 + 1	,	R157,R159,R167,R168.R169,				
			R170,R171,R172,R252,R253,				
	<u> </u>		R254, R255, R256, R257, R259,				
			R267, R268, R269, R270, R271,				
	_		R272, R300, R301, R302, R303,				
			R304.R305.R306,R307.R308.				
			R309, R310, R311, R312, R400,				
<del></del>			R401, R402, R403, R404, R405.				
	<u>-</u>		R406, R407, R408, R409, R410.				
			R411.R412				
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237				
	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2				
103415-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27, HW28				
125106-1	MACOD 8 AMP 400V TRIAC	2	Q131.Q231				
125788-1	CAP, .625ID X 1" VINYL	1	3				
· · · · · · · · · · · · · · · · · · ·	ADHESIVE LOCTITE 384 OUTPUT	<u> </u>	<u> </u>				
125482~1	ACTIVATOR LOCTITE 384 CUTPUT"						
125483-1	1/4" TRS/XLR COMBO PCB VERT	0	5				
126929-1	10UF 50VDC ELECTROLYTIC SMD	2	J500.J600				
125508-1		2_	C3, C30				
126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100.K200				
126325-1	DPDT MINI SLIDE NON-SHORT PC	1	51				
127023-1	OVERCOAT PEN	0	7				
	<del></del>						
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DWG. NO. JFL 9-24-98 DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 5 OF 20 102140-8

PHONE (219) 294-8000 **(**B)

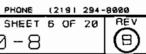
PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
C1	102465-1	10UF 250V 20% RADIAL T/R	J 8		
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*		
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8		
C4	C 4477-3	470 MF 35V VERT	G 1Ø		
C5	C 4477-3	470 MF 35V VERT	G 9		
C8	A11427-104K2	0.1 MF 50V 10% 0805	H 1Ø*		
C7		0.1 MF 50V 10% 0805	H 9*		
C12		0.1 MF 50V 10% 0805	I 9*		
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	£ 9		
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	В 9		
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*		
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*		
C25		0.1 MF 50V 10% 0805	0.9*		
C26	C 8576-8	100 MF 35V 10% ELEC	I 9		
C27	C 5362-6	2.2 MF SØV VERT	H 10		
C28		0.1 MF 50V 10% 0805	J 9*		
C29	· · ·	0.1 MF 50V 10% 0805	I 9*		
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	8 1		
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10		
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9		
C102		0.01MF 50V 10% CHIP 0805	M 9*		
C1Ø3	102467-1	22MF 25V 20% RAD T/R	м 9		
C104	· · · · · · · · · · · · · · · · · · ·	100PF 200V 10% NPO 0805	м 9*		
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9		
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*		
C107		27PF 50V 10% NPO 0805 T/R	L 9*		
C108		82PF 200V 10% NPO 0805	L 10*		
C1Ø9		0.01MF 50V 10% CHIP 0805	Н 6*		
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*		
C111	102438-221K2	220PF 200V 10% NPO 0805	N 8*		
C1!2	A11427-123K2	0.012 MF 50V 10% CHIP	0.8*		
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8		
□114	102458-1	47UF 10V 20% NP RAD T/R	N 8		
C115	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*		
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*		
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*		
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8		
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*		
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*		
C121	103191-1	0.47UF Z5U 1210 20% 50V	G 8*		
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*		
E123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8		
C124	103191-1	0.47UF Z5U 1210 20% 50V	L 9*		
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*		
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*		
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*		
C129	A11427-104K2	0.1 MF 50V 10% 0805	м э*		
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517 DWG. NO. 9-24-98 DHAWN MD390D0 PROJ.



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130		0.1 MF 50V 10% 0805	H 8*
C131		0.1 MF 50V 10% 0805	H 7*
E132		0.1 MF 50V 10% 0805	F 7*
£133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134		0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135		100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2. ZUF 160V RADIAL T/R	I 7
C138	102438~820K2	82PF 200V 10% NPO 0805	м 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
E141	A11369~471K2	470PF 50V 10% NPO 0805 T/R	N 10
£142		33PF 50V 5% NPO MLC 0805	M 10
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C2Ø2	A11427-103K2	2.01MF 50V 10% CHIP 0805	K 9*
€203	102467-1	22MF 25V 20% RAD T/R	K S
C2Ø4	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9 <mark>*</mark>
C2Ø8	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	н з*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	102438-221K2	220PF 200V 10% NPO 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L B*
C213	102468-1	47UF 10V 20% NP RAD T/R	KΘ
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-103K2	0.01MF 50V 10% CHIP 0805	К В*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
E217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1 *
C218	A10434-104JD	0.1 MF_250V 5% MTL_POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
€220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	183191-1	0.47UF Z5U 1210 20% 50V	E 8*
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
E224	103191-1	0.47UF Z5U 1210 20% 50V	1 9*
C226		0.1 MF 50V 10% 0805	K 10*
C227	<del></del>	0.1 MF 50V 10% 0805	K 9 <u>*</u>
C228		0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2		J 9*
C230		0.1 MF 50V 10% 0805	E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232		0.1 MF 50V 10% 0805	E 7*
C233		0.1 MF 50V 10% 0805	D 8*
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
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9-23-98 NWARE PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 DWG. NO. PHONE (219) 294-8888 SHEET 7 OF 20 RE 102140-8

REV (B)

	<del></del>	PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5@1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C5Ø9		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C6Ø1	<del></del>	12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467~1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C6Ø5		0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM 0.10W 5% CHIP	СЗ
C607	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
C608	A11427-104K2	0.1 MF 50V 10% 0805	B 1
C6Ø9		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	€ 2851-1	1N4004 SILICON RECT.	G 10
DЭ	C 2851-1	1N4004 SILICON RECT.	G 10
D4	€ 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	€ 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N52408	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	I 9*
D1Ø1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	и в*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283~Ø	DIODE: 1N914/1N4148 SOT~23 SMT	N 8*
D111	C 9283-Ø	DIODE: 1N914/1N4148 SDT-23 SMT	N 8*
D112	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
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1718 WEST	MISHAWA	KA ROAD	ELKHART. INDIANA 46517
DRAWN	JFL	9-24-98	DWG. NO.
PROJ	MD	39000	<b>1</b> 1021.

SHEET 8 OF 20 102140-8



PHONE (219) 294-8800

	PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.	
D113	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*	
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6	
D115	C1Ø422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5	
D116	C 9283~Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*	
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*	
D118	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*	
D119	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	I 8*	
D120	C 9283~Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*	
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*	
D122	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*	
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*	
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*	
D125	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	H 7*	
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7	
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	мв	
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*	
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-29 SMT	G 6*	
D2Ø1	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	K 9*	
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*	
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*	
D203	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	J 9*	
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*	
D205	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 9*	
D207	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
	C 9283-0	DIODE: 1N914/1N4148 SOT~23 SMT	K 7*	
D208	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
D209 D210	E 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
D211	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
D211	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
<b>+</b>	<del></del>	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*	
D213	C 9283-0 C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3	
D214	<del>                                     </del>	DIODE, 3A 400V 1N5404 AXIAL	I 2	
D215	C10422-1 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*	
D216			<del></del>	
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*	
D218	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	L 10* J 9*	
D221	C 9283-0 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	у 9* К 9*	
D222		DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 1N914/1N4148 SOT-23 SMT	E 9*	
D223	C 9283-0		<del>-</del>	
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*	
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*	
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7	
D227	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K B	
D228	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*	
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*	
E1	102476-1	LED. SMT R/A GREEN	I 1	
E100	102477-1	LED. SMT R/A RED	J 1	
E101	102476-1	LED, SMT R/A GREEN	J 1	
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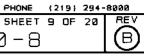
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JFL 9-24-98 DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

DWG. NO. SHEET 9 OF 20 102140-8



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM. T2 NON-ISOLATED CH1.	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2.	L 3
HS3	102573~3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PC8 CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	1 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PC8 CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11956-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	Ā 1
HW26	102579-1	STAND. 1/4 RD SWAGE AL	A 2
HW27	103415-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103415-70608	SCREW.6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	HDR. 16POS .100 CTR SGL ROW	м 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	N 10
J100	102473-1	SPEAKON, 4 POLE PCB HQRZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	8 3
J502	102471-2	HDR. 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL. 30A 24V SPST PCB W/FASTON	€ 9
L100	C 3510-2	CHOKE. 470UH 10% AXIAL	N 7

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SHEET 10 OF 20 REV INC.

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9-24-98 DRAWN JFL PROJ. мрээрра

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 DWG. NO. 102140-8



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
L1Ø1	C 3510-2	CHOKE. 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	□ 7448-1	MMBT3904 CHIP NPN	м э*
Q1Ø1	C 7448-1	MMBT3904 CHIP NPN	M 9*
0102	C 9931-4	MMBT5097LT1 PNP XSISTOR SOT-23	№ 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112		INSTALLED ON THE PREVIOUS ASSEMBLY	N 7
Q114		INSTALLED ON THE PREVIOUS ASSEMBLY	<u> Ј</u>
Q115		INSTALLED ON THE PREVIOUS ASSEMBLY	K 5
Q116		INSTALLED ON THE PREVIOUS ASSEMBLY	L 6
Q117		INSTALLED ON THE PREVIOUS ASSEMBLY	L 5
Q118		INSTALLED ON THE PREVIOUS ASSEMBLY	М 6
Q119		INSTALLED ON THE PREVIOUS ASSEMBLY	N 5
Q12Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	183133 1	INSTALLED ON THE PREVIOUS ASSEMBLY	I 7
D123		INSTALLED ON THE PREVIOUS ASSEMBLY	E 6
0124	<u> </u>	INSTALLED ON THE PREVIOUS ASSEMBLY	Ε 5
0125		INSTALLED ON THE PREVIOUS ASSEMBLY	F 6
Q126	-	INSTALLED ON THE PREVIOUS ASSEMBLY	G 5
0127		INSTALLED ON THE PREVIOUS ASSEMBLY	H 6
Q128		INSTALLED ON THE PREVIOUS ASSEMBLY	H 5
Q1 29	C 744P-1	MMBT3904 CHIP NPN	G 9*
	C 744B-1	MAC9D 8 AMP 400V TRIAC	F 9
0131	125106-1 102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
0132	<del></del>	FET, N-CH 25V 50MA SOT-23	M 9*
Q133 Q200	102480-1 C 7448-1	MM8T3904 CHIP NPN	K 9*
Q201		"	K 9*
	C 7448-1	MMBT3904_CHIP_NPN MMBT5087LT1_PNP_XSISTOR_SOT-23	L 9*
0202	C 9931-4		<del></del>
Q203	102483-1	PNP 300V 500MA SOT-23	I 3
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MM8T5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
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1718 WEST MISHAWAKA ROAD

ELKHART. INDIANA 46517

PHONE (219) 294-8000 SHEET 11 OF 20 REV

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DRAWN JFL 9-24-98 DWG. NO.
PROJ. MD390D0



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212		INSTALLED ON THE PREVIOUS ASSEMBLY	J Z
Q214		INSTALLED ON THE PREVIOUS ASSEMBLY	1 3
Q215		INSTALLED ON THE PREVIOUS ASSEMBLY	К 3
0216		INSTALLED ON THE PREVIOUS ASSEMBLY	L 3
0217		INSTALLED ON THE PREVIOUS ASSEMBLY	L 3
Q218		INSTALLED ON THE PREVIOUS ASSEMBLY	Е М
Q219		INSTALLED ON THE PREVIOUS ASSEMBLY	N 3
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221		INSTALLED ON THE PREVIOUS ASSEMBLY	D 2
0223		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
0224	-	INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
0225		INSTALLED ON THE PREVIOUS ASSEMBLY	F 3
Q225		INSTALLED ON THE PREVIOUS ASSEMBLY	G 3
0227		INSTALLED ON THE PREVIOUS ASSEMBLY	Н 3
		INSTALLED ON THE PREVIOUS ASSEMBLY	
0228	C 7448-1	MMBT3904 CHIP NPN	H 3 E 9*
0229	<del>                                     </del>		
0231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS 8V THRESH	F B
0233	102480-1	FET, N-CH 25V 50MA SOT-23	
<u>F1</u>	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8×
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5		7.68KOHM 0.10W 1% SMT 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
#8	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	н 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0. <u>10W</u> 5% CHIP 0805	I 10*
R15	A11371-0821	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K Ø.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K Ø.1W 1% CHIP Ø8Ø5	F 10*
R18	A11368-71511	7.15K 0.1W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231		I 9*
R24	A11368-57621		I 9*
	<del> </del>	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	-	10K 1/10W 1% CHIP 0805	L 9*
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517

 DRAWN
 JFL.
 9-24-98
 DWG. NO.

 PROJ.
 MD39@DØ
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SHEET 12 OF 20 1 0 2 1 4 0 - 8

PHONE (219) 294-8080



PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	1 8×
8100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
8102	A11368-39231		N 9*
R1Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	<del>}</del>	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021		L 10*
R1ØB		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	M 9*
R110	<del>-</del>	1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	
R112		19.1K Ø.25W 1% MF	L 9
R113	<del></del>	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	<del></del>	8.25K 0.1W 1% CHIP 0805	L 10*
R115	<del>}</del>	68.1K 0.10W 1% CHIP	L 10*
R116		226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	<del></del>	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K Ø.25W 5% CHIP 121Ø	M 8*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	м 9*
R121		10K 1/10W 1% CHIP 0805	M 10
R122		158K 0.10W 1% CHIP 0805	*е и
R123		100K 0.1W 1% CHIP 0805	м 9*
R124		158K 0.10W 1% CHIP 0805	M 9*
R1 25		100K 0.1W 1% CHIP 0805	N 9*
R126		392K 0.10W 1% CHIP 0805	м 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R1 29	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130	ATTOTI OZIT	OPEN	0.8*
R131		OPEN	
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371 2223	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N B*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K Ø.25W 5% CHIP 1210	N 8*
	A11371-3333	820 OHM 0.10W 5% CHIP	08*
R141 R142	A11371-8211	4.7K OHM 0.50W 5% CHIP 2010	0.8*
<u> </u>	A113/1-4/24	T./K ONW 0.30W 3% CHIP ZUIU	—- <del>-</del> — " " " " " " " " " " " " " " " " " "
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 DRAWN
 JFL
 9-24-98
 DWG. NO.

 PROJ.
 MD39@D@
 1
 2
 1

DWG. NG. SHEET 13 OF 28

B

PHONE (219) 294-8006

PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R143	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	К Б*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199~1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I B
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1381	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
	A11371-1811 A11371-5R63	5.8 0.25W 5% CHIP	I 5*
R165	103199-1		E 6*
R167		0.4 OHM 1W 5% 2512 T/R	<del>-</del>
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11371-4751	4.7M 0.10W 5% CHIP 0805	G 8*
R175	A11368-51111		<u> </u>
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180		392K Ø.10W 1% CHIP Ø805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 8*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
A186		100K 0.1W 1% CHIP 0805	N 10*
R187		158K 0.10W 1% CHIP 0805	M 10*
R188	·	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368~57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N <u>6*</u>
R192	A11371-4751	4.7M 0.10W 5% CHIP 0805	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
		<del></del>	

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DWG. NO. JFL 9-24-98 DRAWN PROJ. MD3SQDQ

1718 WEST MISHAWAKA ROAD

102140~8

PHONE (219) 294-8888 SHEET 14 OF 20 REV **(B** 

REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R195	A11371-8211	820 OHM 0.10W 5% CHIP	М 7*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 1Ø*
R202	A11368-39231	392K 0.10W 1% CHIP 0005	L 9*
R203	A11368~499Ø1	499 OHM 0.10W 1% CHIP 0805	L 9*
7204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K Ø.10W 1% CHIP 0805	1 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
7210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
7211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
3215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
7216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
7217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
7219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
7222		158K 0.10W 1% CHIP 0805	K 9*
7223	A11368-10031	100K 0.1W 1% CHIP 0805	к 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
7225		100K 0.1W 1% CHIP 0805	L 9*
7226	A11368-39231	392K 0.10W 1% CHIP 0805	к 9*
7227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
7228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
7229	A11371-B211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	Н 3*
7233	A11371-7511	750 OHM 0.10W 5% CHIP	н з*
7234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-B201	82 OHM Ø.10W 5% CHIP	J 7*
7237	A11368~49901	499 OHM 0.10W 1% CHIP 0805	K 8*
3238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703		K 8*
7240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
7241	A11371~8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-4724	33K 0.25W 5% CHIP 1210	K 8*
7243	A11371-3333	120 OHM 0.25W 5% CHIP	K 8*
	A11368~75RØ3	75 OHM 0.25W 1% CHIP 1210	K 8*
R245		•	
7246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
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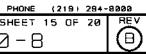
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 48517 JFL 9-24-98 DWG. NO. DRAWN PROJ. мрзэара

SHEET 15 OF 20 102140-8



C.P.N. A11371-1811	DESCRIPTION PARTS LIST	MAP LOC.
	_· · · <del> </del> <del></del>	
	180 DRM 0.10W 5% CHIP	K 2*
A11371-5863	5.6 0.25W 5% CHIP	J 2*
103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
103199-1	0.4 OHM 1W 5% 2512 T/R	к 3*
103199-1		L 4*
		*E M
		N 4*
		N 3*
		D 3*
<del></del>	<del></del>	D 1*
<del></del>		E 2*
		E 2*
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		E 2*
		E 4*
		F 3*
	<del></del>	F 4*
		G 3*
	_ <del></del>	H 4*
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<del></del>	<del></del>	E 8*
		E 8*
		_ <u></u> _
	_ <del></del>	E 7*
		E 8*
		M 1 *
<del></del>		D 8*
	<del></del>	E B*
	<del></del>	F 9*
		F 8*
		L 10*
		K 10*
		K 10*
		K 10*
		N 3*
A11368-22601	226 OHM Ø.10W 1% CHIP Ø8Ø5	N 3*
A11371-4751	4.7M 0.10W 5% CHIP 0805	J 9*
A11368-10021	10K 1/10W 1% CHIP 0805	к 9*
A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
	820 OHM 0.10W 5% CHIP	J 7*
	0.4 OHM 1W 5% 2512 T/R	D 6*
103199-1		J 6*
		K 5*
	<del></del>	L 6*
<del></del>	<del></del>	M 5*
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		<del> </del>
	103199-1 103199-1 103199-1 103199-1 103199-1 103199-1 A11371-1501 A11371-4701 A11371-5R63 103199-1 103199-1 103199-1 103199-1 103199-1 103199-1 103199-1 103199-1 A11371-4751 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10021 A11368-10031	103199-1

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DWG. NO. DRAWN JFL 9-24-98 PAOJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8089 SHEET 16 OF 20 RE 102140-8



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R3Ø5	103199-1	Ø.4 OHM 1W 5% 2512 T/R	м 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
H309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
	103199~1	0.4 OHM 1W 5% 2512 T/R	1 6*
R312			G 7*
R313		10K 1/10W 1% CHIP 0805	+
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315		5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316		1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	NΒ
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	NΘ
R319		DPEN	M 10*
R322		100 OHM .25W 5% 1210 SMT T/A	L 9
8323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	Д Э*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K_3*
R4213	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L. 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	М 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	Ø.4 OHM 1W 5% 2512 T/R	I 3*
R413		10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	<del></del>	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416		1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	к в
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371~5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F B
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
	<del>-</del>		B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	+
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8080
DRAWN JFL 9-24-98 DWG. NO. SHEET 17 OF 20 RE JFL 9-24-98 PROJ. MD390D0



	<del>. "</del>	PARTS LIST	
REF DES	E. P. N.	DESCRIPTION	MAP LOC.
R5Ø8		OPEN	С 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
Sı	126325-1	DPDT MINI SLIDE NON-SHORT PC	L 10
S100	102488-1	SPDT VERT SLIDE 12MM SHAFT	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9898-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	Н 9
П3	102486-1	OPTO BJT NPN SOIC-B CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OF AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U1Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U1Ø2	C 9038-8	COMPARATOR, QUAD LM339D 50-14	N 9
U1Ø4	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON-500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE QP AMP	J 10
U2Ø2	C 9038-8	COMPARATOR, QUAD LM339D SO-14	К 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U2Ø5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	E N
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1		WIRE, 16 RED FAST X 5 X TERM	A 10
WP2		WIRE, 16 BLK/WHT TAB X 5 X T	P A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6		WIRE, 22 WHT 3/16X14 X FAST	J B
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
-			
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1718 WEST MISHAWAKA ROAD MWARG JFL 9-24-98 PROJ. мозэро

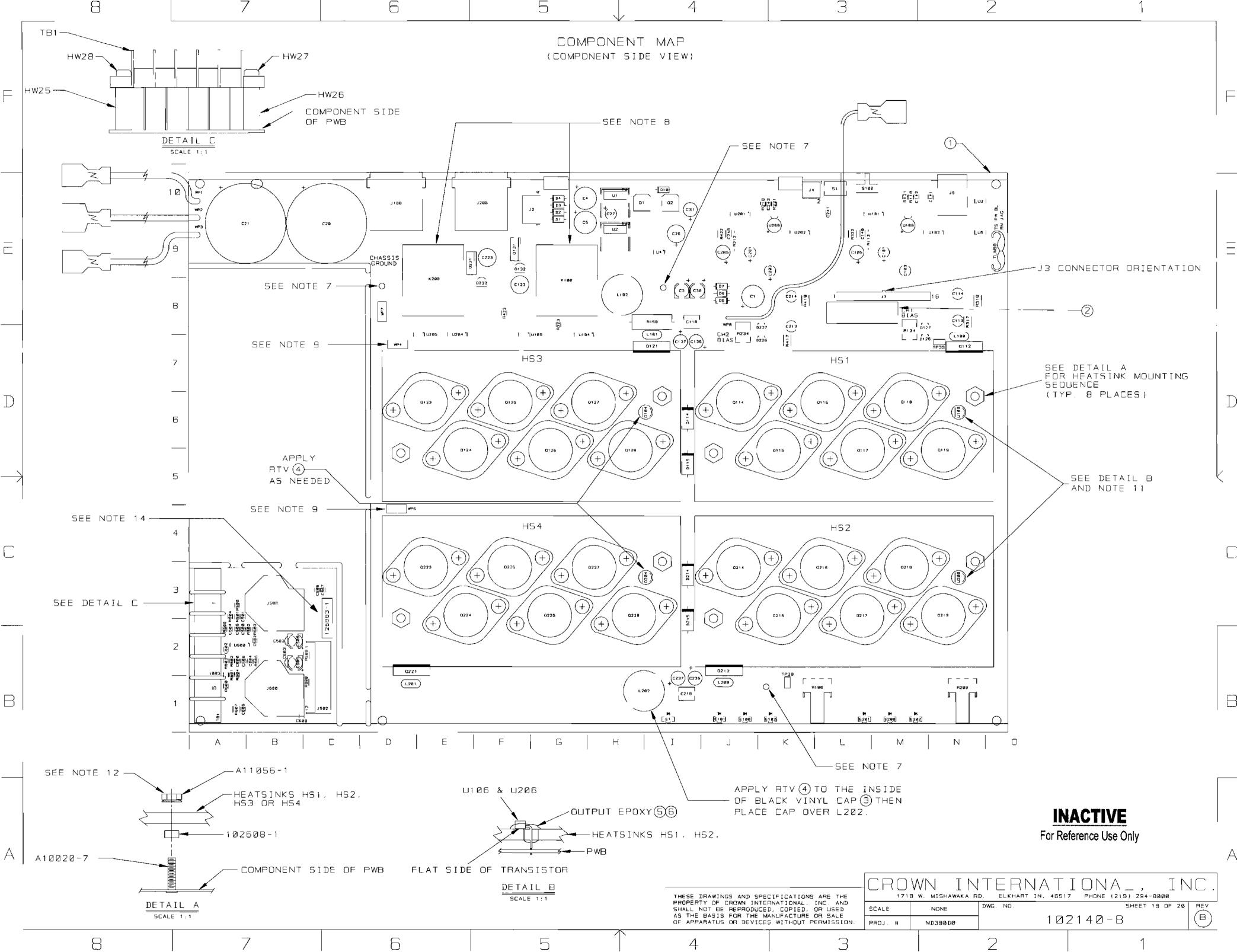
ELKHART, INDIANA 46517 PHONE (219) 294-8000 DWG. NO. SHEET 18 OF 20 102140-8

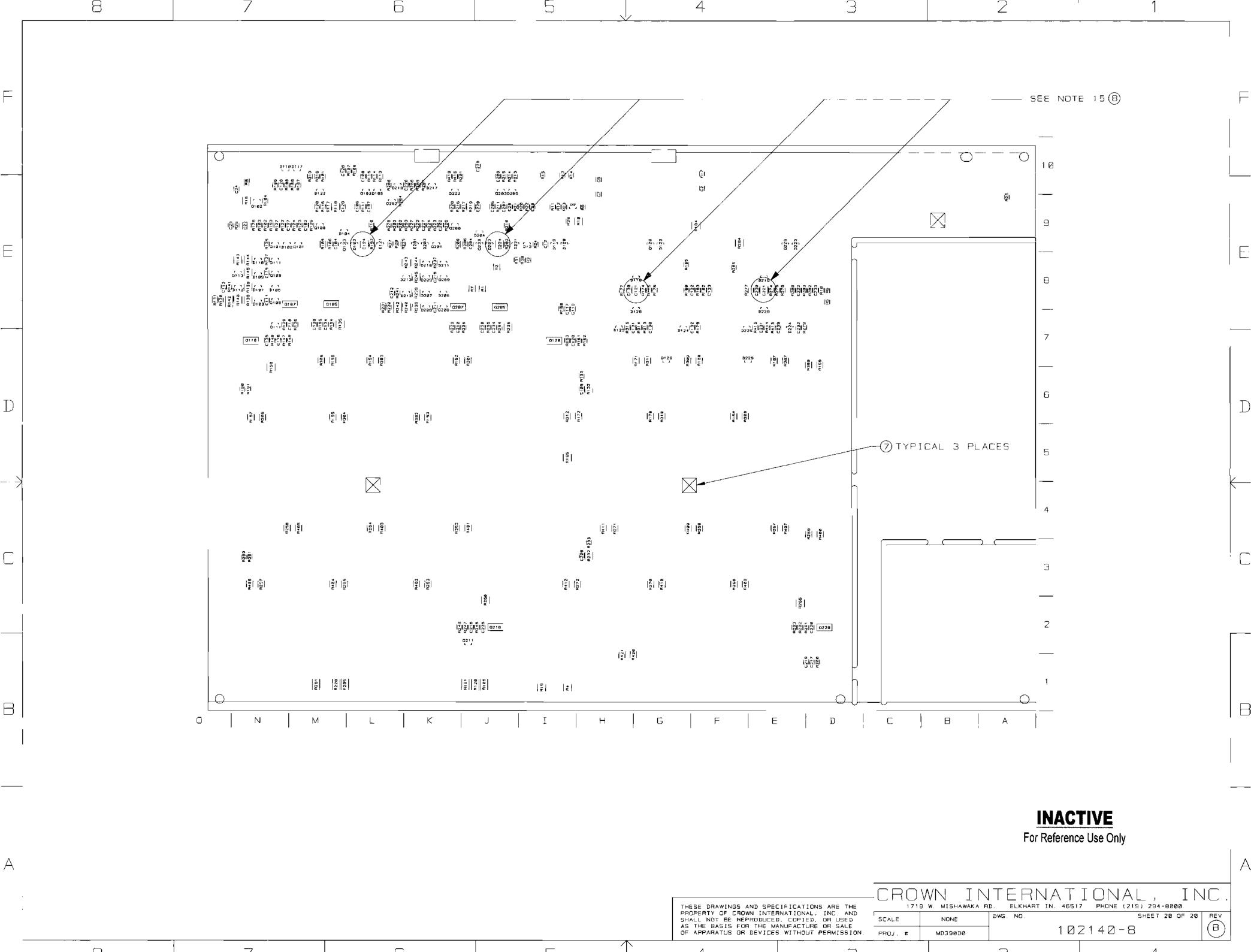
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# **Component Map**

for use with Main PWA #102140-8





- F	7015	DE./	NECCRIPTION	DATE	n.		PPRO	DVAL	.5
E.C.	ZONE	HEV.	DESCRIPTION	DATE	BY	Ę	ME	EĘ	PE
			INITIAL RELEASE TO PRODUCTION(LEVEL I)	t 1 -Ø4 -98	JAW	TLM			TS
98E0796		ا ۾ ا	C606,C607,C608 WERE 0.1MF, R1,R7,R32,R34 WERE 270, R6 WAS 8.87K, R18 WAS 7.68K, R27 WAS 10K, R29 WAS 4.7M, U100,U200 WERE 102723-1.	12/14/98	JAW	Z		(	H
				]					13

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-610. CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- 7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING

IN HOLES.

- 8. THE VENT HOLE ON TOP OF THE RELAYS KIRO AND KROOM MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 5. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT, THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 98 DEG. FLAT SIDE DOWN
  - 11C. PLACE THANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX CUTPUT EPGXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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_				ROV	1I NV	۷T	ΕF	RNAT	IDNA	L INC	
	PRIN	TS TO	1718 WEST	MISHAWA	KA ROAD	ELKH	ART.	INDIANA 46	5 <u>1</u> 7	PHONE (219) 29	4-8000
	K		PWA, MAIN/INPUT CE2000					00	TOL.UNLESS SPEC X.XX = ± X.XXX = ± DRILLS = ±	9.028 8.010	
			DRAWN JAW 11-04-98				APPROVED BY: DO			NOT SCALE PRINT	
			CHECKED TLM 11-10-98						SUPERSED	ES	
Γ		·	SCALE NONE						E.C.	•	
			# LOAS	MD	39000	PE	75	11-10-98	DWG. NO.	SHEET 1 OF 20	REV
	·		FILENAME:102140-9_8,PCB			NE>	CT AS	M:	102	140-9	(B)

	PARTS LIS	Т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	В	HW9, HW10, HW11. HW12, HW13, HW14,
			HW1 5 . HW1 6
A10265-19121	19.1K Ø.25W 1% MF	2	R112,R212
A10266-2874	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22.HW23,HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9. R104. R107. R108. R111.
			R121,R176,R177,R182,R185,
		<del>-</del>	R193, R196, R204, R211, R221,
	-		R276, R277, R282, R285, R293,
	<del>-</del>		R296, R313, R413, R500, R501,
			R502, R503, R504, R506, R600.
			R601, R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,
	TOUR CLIN VA CITI COCC	- · -	R183, R186, R189, R223, R225.
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118,R218
	107 OHM 0.25W 1% CHIP	2	R139.R239
A11368-12121	12.1K CHM 0.10W 1% CHIP 0805	1	R21
A11368-15002		2	R137.R237
A11368-15831	158K Ø.10W 1% CHIP Ø8Ø5	В	R122, R124, R187, R188, R222,
X11300 13031	730K 8: 18W 7% C:111 BB83	۳	R224.R287.R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10. R184. R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291
A11360-39231	392K Ø.10W 1% CHIP 0805	6	R22.R23.R102.R180.R202.R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103, R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	<u> </u>	R113,R175,R213,R275,R315,R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20.R24,R190,R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-61911	6.19K Ø.10W 1% CHIP 0805	2	R197.R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	85
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145, R245
A11368-75R23	7.15K OHM 0.10W 1% CHIP 0805	1	R18
	8.25K 0.1W 1% CHIP 0805	3	R17.R114,R214
A11368-82511 A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R17.R114,R214 R120,R178,R220,R278
-	9.31K Ø.1W 1% CHIP Ø8Ø5	-	
A11368~93111		1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134.C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107.C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	E110, C141, C210, C241
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ELKHART, INDIANA 45517 DWG. NO. DRAWN JAW 11/4/98 PROJ. MD390D6

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8888 SHEET 2 OF 21 RE 102140-9



	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199.R299.R323,R423
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805		R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805		R13, R147, R247
A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K Ø.125W 5% CHIP 1206	1	RB
A11371-1213	120 OHM 0.25W 5% CHIP	4	R13B,R144,R238,R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146.R161.R246.R261
A11371-1501	15 OHM 0.10W 5% CHIP	2	R160.R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R14B, R163, R24B, R263
A11371-2223	2.2K Ø.25W 5% CHIP 121Ø	2	R132, R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-2871	2.7 OHM .1W 5% 0805 T/R	3	C606, C607, C608
A11371-2877	330 OHM 0.25W 5% CHIP	2	R4. R19
· · ·		6	
A11371-3333	33K 0.25W 5% CHIP 1210		R119, R140, R143, R219, R240, R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
444074 2022	7 0V 8 3EW EV C'''E		R414
A11371-3923	3.9K Ø.25W 5% CHIP	Ξ.	R16, R135, R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418
A11371-4701	47 OHM Ø.10W 5% CHIP	2	R162.R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142, R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32.R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105, R128, R181, R205, R228, R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511	750 OHM 0.10W 5% CHIP	<u>.</u> 3	R28, R133, R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129.R141.R195.R229.R241.R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U		1	WP3
A11427-103K2		4	C109, C111, C209, C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2,C6,C7,C12,C24,C25,C28,C29,
			C115,C122,C126,C127,C128.
			C128, C130, C131, C132, C133,
			C139, C215, C222, C226, C227,
	<u>_</u>		C228, C229, C230, C231, C232,
			C233, C239, C505, C506, C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116.C119.C216.C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10
C 3510-2	CHCKE, 470UH 10% AXIAL	4	L100.L101,L200.L201
C 3549-0	DIDDE ZENER, 10V, 1N5240B	1	DB
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4.C5
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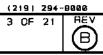
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517 DRAWN JAW 11/4/98 PROJ. MD390D0

SHEET 3 OF 21

PHONE



	PARTS LIS	Т	
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102.C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52
C 7448-1	MMBT3904 CHIP NPN	8	Q100,Q101.Q129.Q200,Q201.Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101.U201.U500
C 9030-8	COMPARATOR, QUAD LM339D SO-1	4	U102.U104.U202.U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9252~5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,
			D105, D106, D107, D108, D109.
			D110, D111, D112, D113, D116,
			D117.D118.D119.D120.D121.
			D122, D123, D124, D125, D126,
			D127, D128, D129, D130, D201.
			D202.D203,D204.D205,D206.
			D207, D208, D209, D210, D211,
			D212.D213,D216.D217.D218,
			D221, D222, D223, D224, D225,
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102.0109.0111.0202.0209.0211
C10195-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
H42902-9	ASM, THERMAL SENSE	2	U106, U206
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, BP4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106.C206.C504.C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102455-1	.47UF 50V 20% RADIAL T/R	2	C101, C201
102456~1	10UF 250V 20% HADIAL T/R	1	C1
102457-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603
102468-1		4	C113, C114, C213, C214
	47  F 10V 20% NP RAT T/A		
1102470-1	47UF 10V 20% NP RAD T/R		
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102.L202
102470-1 102471-2 102472-3			

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1718 WEST MISHAWAKA ROAD DWG. NQ. JAW 11/4/98 DRAWN PROJ. MD390D0

PHONE (218) 294-8888 SHEET 4 OF 21 RE 102140-9



	PARTS LIST							
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION					
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200					
102475-1	BLOCK, 5 POS TERMINAL	1	TB1					
102476-1	LED, SMT R/A GREEN	3	E1,E101.E201					
102477-1	LED. SMT R/A RED	4	E100,E102,E200,E202					
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132, Q232					
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3					
102480-1	FET, N-CH 25V 50MA SOT-23	2	0133,0233					
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208					
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203					
102486-1	OPTO BJT NPN SOIC-8 CTR -100	1	U3					
102488-1	SPDT HORIZ SLIDE	1	<b>S</b> 1					
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	HS3					
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	H54					
102575-3	HS ASM. TZ NON-ISOLATED CH1.	1	HS1					
102576-3	HS ASM, T2 NON-ISOLATED CH2.	1	HS2					
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,					
			HW8					
102579~1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26					
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200					
102723-2	OPTO CELL ON-500 OHM	2	U100.U200					
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7					
103191-1	0.47UF Z5U 1210 20% 50V	2	C144.C244					
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	0107,0110.0207,0210					
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	Q105.Q120,Q205.Q220					
103199-1	Ø.4 OHM 1W 5% 2512 T/R	54	R1. R7. R152. R153. R154. R155.					
			R156, R157, R159, R167, R168,					
			R169, R170, R171, R172, R252,					
_			R253, R254, R255, R256, R257,					
			R259, R267, R268, R269, R270,					
			R271,R272,R300,R301,R302,					
_			R303,R304,R305,R306,R307.					
			R308,R309,R310,R311,R312,					
			R400, R401, R402, R403, R404,					
			R405.R406.R407,R408,R408,					
	<del> </del>		R41Ø, R411, R412					
103210-1	2.2UF 160V RADIAL T/R	4	C136, C137, C236, C237					
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2					
103415-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27, HW28					
125106-1	MACOD 8 AMP 400V TRIAC	2	0131,0231					
125242-1	CAP625ID X 1" VINYL	1	3					
125482-1	ADHESIVE LOCTITE 384 OUTPUT	ø	5					
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6					
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3. C3Ø					
126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100,K200					
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4					
-	1/4" TRS/XLR COMBO PCB VERT	2						
126929-1	INACTIVE	4	1500.1600					

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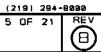
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 DRAWN
 JAW
 11/4/98
 DWG. NO.

 PROJ.
 MD39000
 1 0 2 1

SHEET 5 OF 21

PHONE



		PARTS LIST	
AEF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	1255Ø8-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C.4	C 4477-3	470 MF 35V VERT	G 12
	□ 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	Ø.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	Ø.1 MF 50V 10% 0805	н э*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I S*
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	СЭ
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	8 8
	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24		0.1 MF 50V 10% 0805	N 9*
C25		0.1 MF 50V 10% 0805	0.9*
 C26	C 8576-8	100 MF 35V 10% ELEC	19
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		Ø.1 MF 50V 10% 0805	, , , , , , , , , , , , , , , , , , ,
C29		0.1 MF 50V 10% 0805	1 9*
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	I B
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C102 C103	192467-1	22MF 25V 20% RAD T/R	M 9
C103		100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
		56PF 200V 10% NPO 0805	L 9*
C106		27PF 50V 10% NPO 0805 T/A	L 9*
C107			L 10*
C108		82PF 200V 10% NPO 0805	
C109		0.01MF 50V 10% CHIP 0805	H 6*
C110		470PF 50V 10% NPO 0805 T/R	
C111		0.01MF 50V 10% CHIP 0805	N B*
C112		0.012 MF 50V 10% CHIP	0 B*
C113	102468-1	47UF 10V 20% NP RAD T/R	N B
C114	102468~1	47UF 10V 20% NP RAD T/R	N B
C115		0.1 MF 50V 10% 0805	N B*
C116		4700PF 50V 10% X7R 0805	N: 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	I 8
C119		4700PF 50V 10% X7R 0805	I 7*
C120		100PF 200V 10% NPO 0805	I 7*
C121	C1Ø196-1	2.2MF 50V 20% RAD T/R	68
C122		0.1 MF 50V 10% 0805	F B*
□123	C 9157~8	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196~1	2.2MF 50V 20% RAD T/R	<u> </u>
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF_50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0905	м 9*
		<u> </u>	<u> </u>

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#### INTERNATIONAL CROWN INC.

DWG. NO.

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 JAW 11/4/98 DRAWN PROJ. MD398D0

PHONE (219) 294-8888 SHEET 6 OF 21 RE 102140-9

PHONE



		PARTS LIST	PARTS LIST				
REF DES	C.P.N.	DESCRIPTION	MAP LOC.				
C130	A11427-104K2	Ø.1 MF 50V 10% 0805	H 8*				
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*				
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*				
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*				
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*				
C135	102438-101K2	100PF 200V 10% NPC 0005	N 7*				
C136	103210-1	2.2UF 160V RADIAL T/R	I 7				
C137	103210-1	2.2UF 160V RADIAL T/R	I 7				
C138	102438-820K2	B2PF 200V 10% NPO 0805	M 7*				
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*				
C14Ø	C 7091-9	0.33 MF 50V CHIP 1206	L S				
C141		470PF 50V 10% NPO 0805 T/R	N 10				
C142		33PF 50V 5% NPO MLC 0805	M 1Ø				
C143		0.01MF 50V 5% X7R 1206	м 9*				
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*				
C2Ø1	102465-1	.47UF 50V 20% HADIAL T/R	J 9				
C202	C 6802-0	.47 MF 5ØV AX CERM	к 9				
C203	102467-1	22MF 25V 20% RAD T/R	К 9				
C204	_	100PF 200V 10% NPO 0805	J 9*				
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9				
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*				
C2Ø7	····	27PF 50V 10% NPO 0805 T/R	J 9*				
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*				
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	н э*				
C210	A11369-471K2	470PF 50V 10% NPC 0805 T/R	K 7*				
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*				
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*				
C213	102468-1	47UF 10V 20% NP RAD T/R	K B				
C214	102468-1	47UF 10V 20% NP RAD T/R	KΘ				
C215	A11427-104K2	0.1 MF 50V 10% 0805	К В*				
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*				
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*				
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1				
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*				
C22Ø	102438-101K2	100PF 200V 10% NPO 0805	D 2*				
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8				
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*				
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9				
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9				
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*				
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*				
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*				
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*				
C23Ø	A11427-104K2	0.1 MF 50V 10% 0805	£ 8*				
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*				
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*				
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*				

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#### INC. CROWN INTERNATIONAL 1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517

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DWG. NO. JAW 11/4/98 DRAWN PAOJ. MD390D0

PHONE (219) 294-8000 SHEET 7 OF 21 REV 102140-9



		PARTS LIST	
REF DËS	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I i
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239		0.1 MF 50V 10% 0805	E 7*
C2 <b>40</b>	C 7091-9	0.33 MF 50V CHIP 1206	J g
C241		470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C243		0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500		12PF 50V 10% NPO 0805 T/R	A 2
C501		12PF 50V 10% NPO 0805 T/R	A 2
C502		12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	8 2
C504		56PF 200V 10% NPO 0805	A 2
C5Ø5		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C509	ALITZE TOTKE	OPEN	B 2
C690	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601		12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/A	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
£6Ø4		56PF 200V 10% NPO 0805	B 2
	A11427-104K2		A 1
C605			C 3
C606	A11371-2R71	2.7 OHM .1W 5% 0805 T/R 2.7 OHM .1W 5% 0805 T/R	C 3
C607	A11371-2R71 A11371-2R71	2.7 OHM .1W 5% 0805 T/R	B 1
C608	K113/1-2H/1	OPEN	B 2
C609	C 2851-1	1N4004 SILICON RECT.	G 9
D1		1N4004 SILICON RECT.	G 10
D2	C 2851-1		<del></del>
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODÉ ZENER, 10V, 1N52408	J 8
D9	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D1Ø	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
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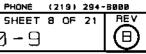
1718 WEST MISHAWAKA ROAD

DRAWN JAW 11/4/98

PROJ. MD39000

 ELKHART. INDIANA 46517
 PHONE (219) 294

 DWG. NO.
 SHEET 8 OF 21



	PARTS LIST	
REF DES C.P.N.	DESCRIPTION	MAP LOC.
D109 C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D110 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D111 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	И В*
D112 C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D113 C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D114 E10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 6
D115 C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116 C 9283-0	DIODE, 1N914/1N4148 SOT~23 SMT	G 8*
D117 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	19*
D120 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121 C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 9*
D122 C 9283-0		м 9*
D123 C 9283-0		G 9*
D124 C 9283-0		G 7*
D125 C 9283-0		H 7*
D126 C 9283-0		M 7
D127 C 9283-0		M 8
D128 C 9283-0		G 7*
D129 C 9283-0		G 6*
D130 C 9283-0		м 9
D201 C 9283-0		к 9*
D202 C 9283-0		<u> </u>
D203 C 9283-0		J 9*
D204 C 9203-0		J 9*
D205 C 9283-0		J 9*
D206 C 9283-0		К В*
D207 C 9283-0	<del>-                                    </del>	K 8*
D208 C 9283-0		K 7*
D209 C 9283-0		K 8*
D210 C 9283-0		K 8*
D211 C 9283-0		К В*
D212 C 9283-0		K 8*
D213 C 9283-0		K 8*
D214 C10422-1		1 3
D215 C10422-1		I 2
D216 C 9283-0		E 8*
D217 C 9283-0		K 10*
D218 C 9283-0		L 10*
D221 C 9283-0		J 9*
D222 C 9283-0		
D223 C 9283-0		E 9*
		E 7*
D225 C 9283-0		F 7*
D226 C 9283-0	<del>_</del>	K 7
D227 C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	К 8
	NACTIVE	

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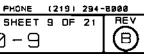
1719 WEST MISHAWAKA ROAD

DRAWN JAW 11/4/98

PROJ. MD390D0

 ELKHART. INDIANA 46517
 PHONE (219) 294

 DWG. NO.
 SHEET 9 DF 21



	PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*	
D229	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	F 6*	
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 9	
E1	102476-1	LED. SMT R/A GREEN	I 1	
E100	102477-1	LED, SMT R/A RED	J 1	
E101	102476~1	LED, SMT R/A GREEN	J 1	
E102	102477~1	LED, SMT R/A RED	K 1	
E200	102477-1	LED. SMT R/A RED	M 1	
E201	102476-1	LED, SMT R/A GREEN	L 1	
E202	102477-1	LED. SMT R/A RED	M 1	
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6	
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3	
HS3	102573-3	HS ASM. T2 ISOLATED CH1. , ,	G 6	
HS4	102574~3	HS ASM. T2 ISOLATED CH2	G 3	
HW1	102578-1	SPACER, 6X.125 AL BLK ANDDIZED	A 4	
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4	
<u>п.w2</u> НWЗ	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4	
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4	
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4	
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4	
HW7			B 4	
	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4	
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED		
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5	
HW1 @	A10020-7	6-32 X .625 PCB CAPTIVE STUD	1 6	
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2	
HW1 2	A10020-7	6-32 X 625 PCB CAPTIVE STUD	1 3	
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5	
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6	
HW1 5	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2	
HW1 6	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3	
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HWI B	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW21	A11056~1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4	
HW23	A11055-1	6-32 HEX NUT W/BELLEVILLE	B 4	
HW2 4	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4	
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4	
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4	
HW27	<del></del>	SCREW.6-32 X.5 TORX PNHD SEM	A 4	
HW2B	103415-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4	
J <u>2</u>	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10	
J.3	102472-3	HDR, 16POS .100 CTR SGL ROW	м в	
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L_10	
J <u>5</u>	101993-1	JACK, 5P4 COND MODULAR R/A		
	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10	
J 100				
J100 J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10	

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#### CROWN INTERNATIONAL INC.

718 WEST MISHAWAKA ROAD JAW 11/4/98 DRAWN

ELKHART, INDIANA 48517 DWG. NO.

PHONE (219) 294-8666 SHEET 10 OF 21

WD39@D@ PROJ.



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
1600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L1Ø1	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	на
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	€ 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q1Ø1	C 7448-1	MMBT3904 CHIP NPN	м 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SDT-23	N 9*
Q1Ø3	102483-1	PNP 300V 500MA SOT-23	L 9*
Q1Ø4	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q1Ø5	103193-1	PNP 300V 500MA 50MHZ 50T-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q1Ø8	102481-1	NPN 25V LOW NOISE SOT-23	N 8 *
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q11Ø	103192-1	NPN 300V 500MA 50MHZ 50T-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q1 1 2	103200-1	NPN 230V 15A 30MHZ 25C5242	N 7
,		<u> </u>	
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
·		·	
		-	<u> </u>
	_		
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET. N-CH 25V 50MA SOT-23	M 9*
Q2ØØ	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
		(mm2.13597E 11.1141 //3231011 / 351 / 23	
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DRAWN JAW 11/4/98
PROJ. MD390D0

718 WEST MISHAWAKA ROAD

 ELKHART. INDIANA 48517
 PHONE (219) 294-8008

 DWG. NO.
 SHEET 11 OF 21 RE



	•	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q2Ø5	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q2Ø8	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 25C5242	D 1
		_	
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS BV THRESH	F 8
0233	102480-1	FET. N-CH 25V 50MA S0T-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-9311 <u>1</u>	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022 A11368-10021	1K 0.125W 5% CHIP 1206 10K 1/10W 1% CHIP 0805	N 10*
R9 R10		20K 0.25W 1% CHIP 1210	H 9*
R11	A11366-20023	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	1 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 19*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø	A11368-57621	57.6K 0.10W 1% CHIP 0805	*8 1
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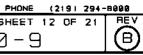
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1718 WEST	MISHAWA	KA ROAD	ELKHART, INDIANA 48517
NWARD	WAL	11/4/98	DWG. NO.
PAG.L.	σM	39000	<b>1</b> 1021

SHEET 12 OF 21 DWG. NO. 102140-9



		PARTS LIST	
HEF DES	C. P. N.	DESCRIPTION	MAP LOC.
B21		12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23		392K 0.10W 1% CHIP 0805	I 9*
R24		57.6K 0.10W 1% CHIP 0805	I 9*
R25		100K 0.1W 1% CHIP 0805	№ 9*
F26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371~7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
H3Ø	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31		100K 0.1W 1% CHIP 0805	¥
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
H33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	ኒ 1
R1Ø1		1K 0.10W 1% CHIP 0805	M 10*
R102		392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
F104		10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
F106	A11368-10011	1K 0.10W 1% CHIP 0805	м 9*
R107		10K 1/10W 1% CHIP 0805	Ł 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	м 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
F1 1 1	A11368-10021	10K 1/10W 1% CHIP 0805	∟ 9*
R112	A10265-19121	19.1K Ø.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10#
R114	A11368-82511	8.25K Ø.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K Ø.1ØW 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	м 9*
R117	A11371-334 <u>1</u>	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	м 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
F120	A11368-90921	90.9K 0.10W 1% CHIP 0805	м 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	М 102
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	м 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	м 9*
R125	A11368-10031		и э*
R126		49.9K 0.1W 1% CHIP 0805	М 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	И 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.8*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	Н 6*
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1718 WEST MISHAWAKA ROAD DRAWN JAW 11/4/98 PROJ. MD390D0

DWG. NO. SHEET 13 OF 21 102140-9

PHONE



(219) 294-8000

PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*	
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	М 7	
R135	A11371-3923	3.9K Ø.25W 5% CHIP	м 7×	
R136	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*	
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*	
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N B*	
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N B*	
R140	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N 8 ×	
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*	
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0.8*	
H143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*	
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
R145	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	N 8*	
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*	
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*	
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*	
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*	
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*	
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*	
R154	103199~1	Ø.4 OHM 1W 5% 2512 T/R	L 6*	
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*	
A156	103199~1	Ø.4 DHM 1W 5% 2512 T/R	м 6*	
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R158	A10266-2R74	2.7 OHM 2W 5% CF	1 8	
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	Ď 6*	
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*	
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*	
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*	
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*	
R165	A11371~5R63	5.6 0.25W 5% CHIP	I 5*	
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*	
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*	
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*	
R170	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*	
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*	
R174	A11368-60432	604K DHM 0.125W 1% CHIP 1206	G 8*	
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*	
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*	
R177	A11368~10021	10K 1/10W 1% CHIP 0805	н в*	
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	№ *	
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*	
A180	A11368-39231	392K Ø.10W 1% CHIP Ø805	G 8*	
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R182	A11368-10021		F B*	
R183		100K 0.1W 1% CHIP 0805	F 8*	
R184		20K 0.25W 1% CHIP 1210	F 9*	
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ELKHART, INDIANA 48517 JAW 11/4/98 DRAWN PRQJ. MDBBBDB

1718 WEST MISHAWAKA ROAD

DWG. NO. SHEET 14 OF 21 102140-9



PHONE (219) 294-8000



	PARTS LIST			
HEF DES	£. P. N.	DESCRIPTION	MAP LOC.	
R185		10K 1/10W 1% CHIP 0805	G 8*	
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*	
R187	A11368-15831	158K Ø.10W 1% CHIP Ø8Ø5	M 10*	
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*	
8189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*	
R190	A11368-57621	57.8K 0.10W 1% CHIP 0805	N 6*	
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*	
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*	
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*	
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*	
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*	
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*	
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 1Ø	
R198		OPEN	M 10	
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N B*	
R200	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1	
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*	
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*	
R2Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*	
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*	
R2Ø5	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 8*	
R209	A11368-19122	19.1K Ø.125W 1% CHIP 1206	к 9*	
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*	
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*	
R212	A10265~19121	19.1K 0.25W 1% MF	J 9	
R213		5.11K DHM 0.10W 1% CHIP 0805	J 10*	
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*	
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*	
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*	
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*	
R21B		10.2K 0.10W 1% CHIP 0805	K 10	
R219	A11371-3333	33K 0.25W 5% CHIP 1210	) 9*	
R220	<del></del>	90.9K 0.10W 1% CHIP 0805	K 9*	
R221		10K 1/10W 1% CHIP 0805	K 10	
R222	_	158K Ø.10W 1% CHIP 0805	K 9*	
R223		100K 0.1W 1% CHIP 0805	K 9*	
R224	_	158K Ø.10W 1% CHIP Ø8Ø5	K 9*	
R225	<u>'</u>	100K 0.1W 1% CHIP 0805	\ \ 9*	
R226		49.9K 0.1W 1% CHIP 0805	K 9*	
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*	
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*	
R230		OPEN	L 7*	
R231	111271 222	OPEN	L 7*	
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*	
R233	A <u>11371-7511</u>	750 OHM 0.10W 5% CHIP	H 3*	
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JAW 11/4/98 DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

DWG. NO. SHEET 15 OF 21 102140-9

PHONE



(219) 294-8000

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	B2 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	к в∗
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239		107 OHM 0.25W 1% CHIP	к в*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	К В*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	К В*
R245		75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248		180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*
R252	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	Ø.4 OHM 1W 5% 2512 T/R	к з*
R254	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	Н 3*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111		E 8*
R276	A11368-10021		E 8*
R277	A11368-10021		E 8*
R278	A11368-90921		L 9*
R279		100K 0.1W 1% CHIP 0805	E 7*
R28Ø		392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *
R282	A11368-10021		D 8*
R283		100K 0.1W 1% CHIP 0805	E 8*
R284	<u> </u>	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021		F 8*
R286	A11368-10031		L 10*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 JAW | 11/4/98 DRAWN MD39000 PROJ.

DWG. NO. SHEET 16 OF 21

102140-9



PHONE (219) 294-8000

	-	PARTS LIST	
HEF DES	C. P. N.	DESCRIPTION	MAP LOC.
R287		158K 0.10W 1% CHIP 0805	K 10*
R288		158K 0.10W 1% CHIP 0805	K 10*
R289		100K 0.1W 1% CHIP 0805	K 10*
R29Ø		57.6K 0.10W 1% CHIP 0805	№ В
R291		226 OHM 0.10W 1% CHIP 0805	*E N
R292		604K OHM 0.125W 1% CHIP 1206	J g∗
R293	A11368-10021		К 9*
H294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	к 9*
R297		6.19K 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0F02	0.0 OHM JUMPER CHIP 1206	к 8*
H300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 DHM 1W 5% 2512 T/R	16*
R3Ø2	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*
R307	103139~1	0.4 DHM 1W 5% 2512 T/R	E 6*
R3Ø8	103189-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R3Ø9	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
8311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313		10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315		5.11K OHM 0.10W 1% CHIP 0805	H 7*
8316	,	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371~3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 DHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0802	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	Ø.4 OHM 1W 5% 2512 T/R	к э*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
8404	103199-1	Ø.4 DHM 1W 5% 2512 T/R	м э*
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*
R4Ø8	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 DHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 DHM 1W 5% 2512 T/R	H 4*
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DWG, NO. JAW 11/4/98 **DRAWN** PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 17 OF 21 102140-9

PHONE



(219) 294-8888

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413		10K 1/10W 1% CHIP 0805	E 7*
B414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OPEN	K 10*
R420	A11371-5R65	5.8 DHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.8 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	Ø.Ø DHM JUMPER CHIP 1206	F 8
R5Ø0	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R5Ø1	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	8 2
R5Ø4	A11368-10021		A 2
R506		10K 1/10W 1% CHIP 0805	A 2
R5Ø8	***************************************	OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021		A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
8604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021		B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608	X11371 0223	OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
52	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	н 9
UŽX	C 9918-1	TO220 VERT CLIP-ON HEATSINK	н в
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC330700 DUAL LO NOISE OF AMP	N 9
U100	102723-2	OPTO CELL ON-500 OHM	M 9
U1@1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 1Ø
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC3307BD DUAL LO NOISE OP AMP	F 7
U106	H429Ø2~S	ASM, THERMAL SENSE	N B
U200	102723-2	OPTO CELL ON-500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE DP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
5204	<u> </u>	COMMINICATION, GOND ENGUGE SO 14	- '-
	INAC		1

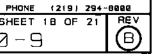
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## CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD E
DRAWN JAW 11/4/98
PROJ. MD390D0

 ELKHART, INDIANA
 46517
 PHONE
 (219)
 294

 DWG.
 NO.
 SHEET
 18 OF
 21



PARTS LIST					
AEF DES	C. P. N.	DESCRIPTION	MAP	LOC.	
U2Ø5	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7	
U2Ø6	H42902-9	ASM, THERMAL SENSE		N 3	
บริติติ	C 9012-3	MC33079D QUAD LO NOISE OP AMP		A 2	
WP1		WIRE, 16 RED FAST X 5 X TERM		A 10	
WP2		WIRE, 16 BLK/WHT TAB X 5 X T		A 9	
WP3		WIRE, 16 BLU FAST X 5 X TERM		A 9	$\overline{}$
WP4		.250 FASTON, AUTO INSERTABLE		D 7	$\neg \neg$
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4	$\neg \neg$
WP6		WIRE, 22 WHT 3/16X14 X FAST		JB	$\neg \neg$
WP7	101031-1	.250 FASTON, AUTO INSERTABLE		D B	
Z1		OPEN		E 9	$\neg \neg$
1	102138-9		SEE	COMP	MAP
2	101016-1			COMP	
3	125242-1		-	COMP	_
4	126825-1			COMP	
5	125482-1			COMP	
6	125483-1		-	COMP	
7	103180-1			COMP	
7	103160-1		<del></del>	COMP	
7	103180-1		<del></del>	COMP	
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#### INC. CROWN INTERNATIONAL

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1718 WEST MISHAWAKA ROAD DRAWN JAW 11/4/98 MD390D0

ELKHART, INDIANA 46517 DWG. NO.

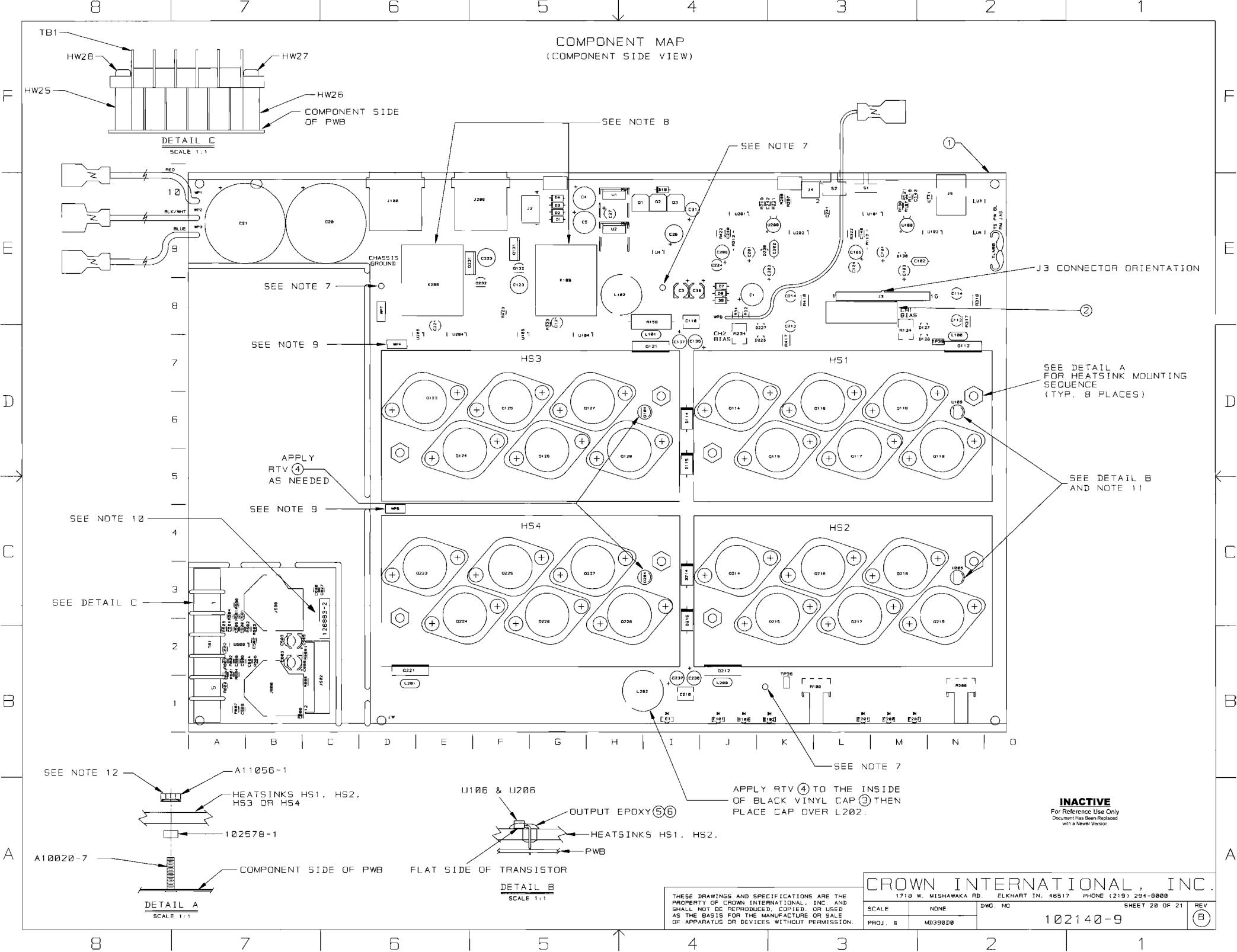
PHONE (219) 294-8888 SHEET 19 OF 21

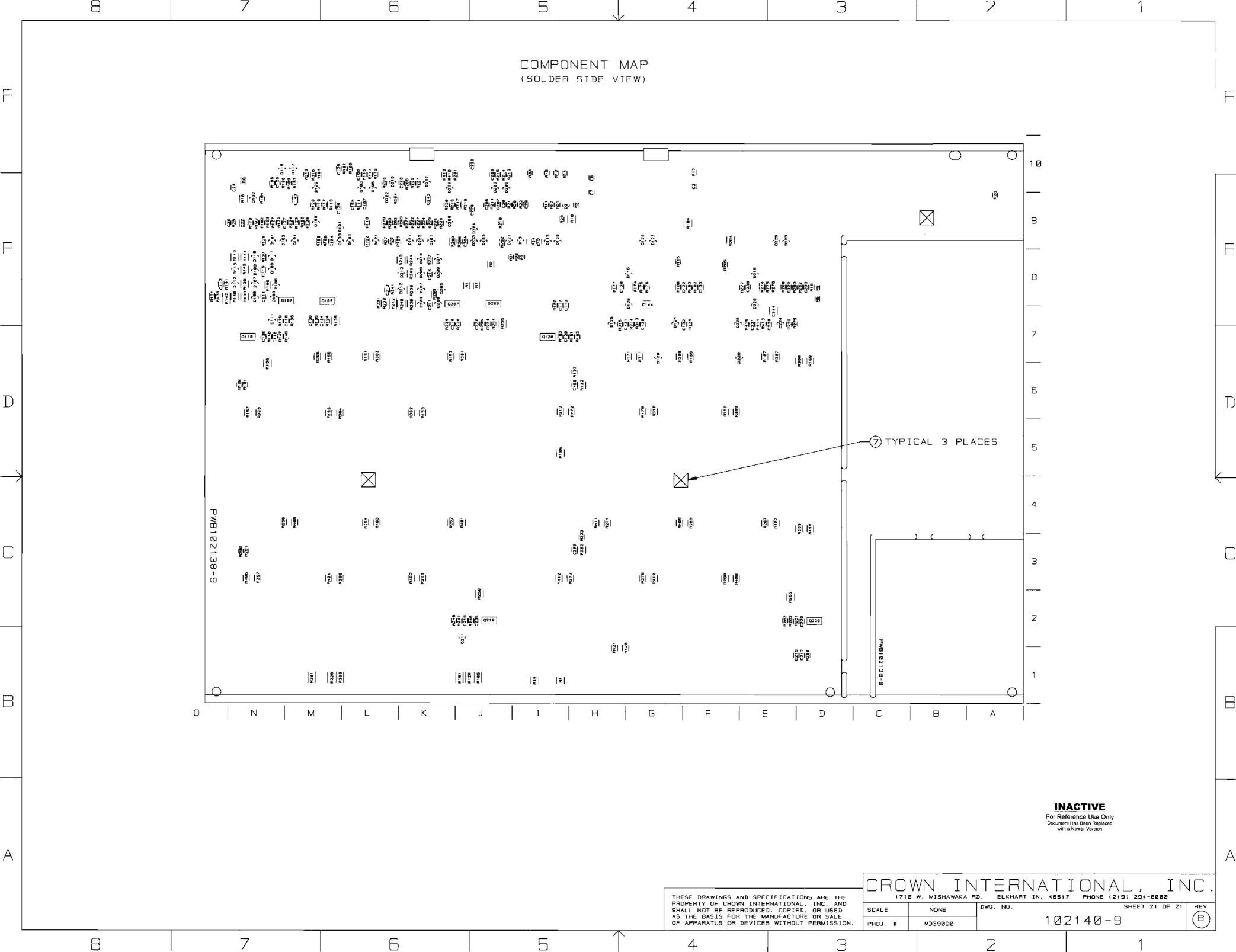




# **Component Map**

for use with Main PWA 102140-9 rev B





	7015	0511	DECROTATION	DATE	2	APPROVAL			S
E.C.	ZONE	MEV.	DESCRIPTION	DATE	BY	CHK	CM	EΕ	PE
		A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	11-04-99	JAW	TLM			TS
9860796		В	C608,C607,C608 WERE 0.1MF. A1,R7,R32,R34 WERE 270. R5 WAS 8.87K. R18 WAS 7.68K. R27 WAS 10K. R29 WAS 4.7M. U100,U200 WERE 102723-1.	12/14/98	JAW	JL			TS
39E0042			C606,C607.C608 WERE 2.7 CHM. HW27,HW28 WERE 103415-70608.	01-29-99	WAL	Κw	ce		78

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
   ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- 11. INSTALLATION OF U196 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK,
    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD.
    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK!)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11856-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
- TEMPERATURE TORQUE OF 13-15 INCH LBS.
  13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP



#### INACTIVE

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			ROV	1 I NV	VΤ	EF	TANF	IONA	L INC	.
PRINTS TO		1718 WEST	MISHAWA	KA ROAD	ELKH	ART.	INDIANA 46	517	PHONE (219) 29	4-8020
K		P'	WA.	MAIN/	ΙN	PUT	CE20	TOL. UNLESS SPECIFIED  X.XX = ± 0.020  X.XX = ± 0.010  DRILLS = ± 0.003		
		DRAWN	JAW	11-04-98	A	PPRO	VED BY:	DO NOT SCALE PRINT		
		CHECKED	TLM	11-10-98	ME			SUPERSEDES		
		SCALE		IONE	EE			E.C.		
		PROJ # MD390D0 PE TS 11-12-98 DWG. NO. SHEE		SHEET 1 OF 21	REV					
		FILENAME:102140-9_C.PCB		NEX	CT AS	6M:	102	140-9		

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11. HW12, HW13, HW14.
			HW15, HW16
A10265-19121	19.1K Ø.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118.C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110.R201,R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9.R104.R107.R108,R111,
			R121,R176,R177,R182,R185,
			R193, R196, R204, R211, R221,
			R276, R277, R282, R285, R293,
			R296.R313,R413,R500,R501,
			R502, R503, R504, R506, R600,
			R601, R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25.R30,R31,R123.R125.R179.
			R183,R186,R189,R223,R225,
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118,R218
	107 OHM 0.25W 1% CHIP	2	R139,R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137,R237
A11368~15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222.
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116.R191.R216.R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22.R23.R102.R180.R202.R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126.R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113, R175, R213, R275, R315, R415
A11368-57621	57.8K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368~61911	6.19K Ø.10W 1% CHIP Ø805	2	R197,R297
A11368-68121	68.1K Ø.1ØW 1% CHIP	3	R12,8115,8215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	FIS
A11368~75R03	75 OHM 0.25W 1% CHIP 1210	2	R145,R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K Ø.1W 1% CHIP Ø805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120.R178.R220.R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-27ØK2	27PF 50V 10% NPO 0805 T/R	2	C107.C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241
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ELKHART, INDIANA 46517 1718 WEST MISHAWAKA ROAD DWG. NO. DRAWN JAW 11/4/98 MD390D0

PROJ.

PHONE (219) 294-8000 SHEET 2 OF 21 RE



·	PARTS LIS	Т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423
A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146.R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, R160, R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	B2
		,	
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4.R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11.R26.R117.R217.R314,
771371 3341	3368 6. 164 32 6111 8683	<u> </u>	R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235
A11371 3323	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371 -4701	47 OHM 0.10W 5% CHIP	2	R162, R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142, R242
A11371-4724	560 OHM 1W 5% 2512 T/R	2	R32.R34
A11371-5863	5.6 0.25W 5% CHIP	4	
A11371-5R65			R150, R165, R250, R265
	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371~6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R201
A11371~6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511 A11371-8201	750 OHM 0.10W 5% CHIP	3	R2B, R133, R233
	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294
A11371~8205	82 DHM 1W 5% CHIP 2512	1	R607
A11371-8211 A11378-A050U	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295
	WIRE. 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109.C111,C209.C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2, C6, C7, C12, C24, C25, C28, C29,
			C115.C122.C126.C127.C128.
	· · · · · · · · · · · · · · · · · · ·		C129, C130, C131, C132, C133.
			C139, C215, C222, C226, C227,
			C228.C229.C230.C231.C232.
			C233,C239,C505,C506,C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112.C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117.C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100.L101,L200.L201
C 3549-0	DIODE ZENER. 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT		C31
		1	
C 4477-3	470 MF 35V VERT	2	C4, C5

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ELKHART, INDIANA 46517 DWG. NO. JAW 11/4/98 DRAWN

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1718 WEST MISHAWAKA ROAD

PROJ.

PHONE (219) 294-8888 SHEET 3 OF 21 RE



	PARTS LIS	т	
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C1@2,C2@2
C 7091-9	0.33 MF 50V CHIP 1206	3	C22.C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4, U5, U105, U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101.U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 15V 20% NP ELEC RAD T/	2	C123. C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	0104,0204
C 9283-0	DIODE. 1N914/1N4148 SOT-23 S	56	D9, D13. D101. D102. D103. D104.
			D105.D106.D107.D108.D109.
			D110.D111.D112,D113.D116,
			D117, D118, D119, D120, D121,
			D122, D123, D124, D125, D126,
			D127, D128, D129, D130, D201,
			D202, D203, D204, D205, D206,
		_	D207, D208, D209, D210, D211.
			D212, D213, D216, D217, D218,
_			D221.D222.D223.D224.D225.
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X.U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT~	6	0102.0109.0111.0202.0209.0211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121.C124.C221.C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114.D115.D214.D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20.C21
H42902-9	ASM. THERMAL SENSE	2	U106, U206
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4.WP5.WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101, C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113. C114. C213. C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102470-1	HDR. 12POS 2.5MM RT ANG KEYE	1	J502
102471-2	HDR, 16POS .100 CTR SGL ROW	1	J3
1027/273	אטא שטכ אום שפו, בט וטו לועוו	<u>'</u>	

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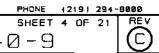
1718 WEST MISHAWAKA ROAD
DRAWN JAW 11/4/98

PROJ.

MD390D0

 ELKHART. INDIANA 46517
 PHONE (219) 294

 DWG. NO.
 SHEET 4 OF 21



102473-1 S 102475-1 E 102476-1 L	DESCRIPTION SPEAKON, 4 POLE PCB HORZ	OTY	REFERENCE DESIGNATION
102475-1 E 102476-1 L	SPEAKON, 4 POLE PCB HORZ		
102476-1 L		2	J100.J200
	BLOCK, 5 POS TERMINAL	1	TØ1
102477-1 L	LED, SMT R/A GREEN	3	E1,E101,E201
	LED. SMT R/A RED	4	E100.E102.E200.E202
10247B-1 T	TRIAC DRIVER SBS BV THRESH	2	0132,0232
102479-1 F	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1 F	FET. N-CH 25V 50MA SOT-23	2	0133,0233
102481-1 N	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1 F	PNP 300V 500MA 50T-23	Ž	Q103.Q203
	OPTO BJT NPN SOIC-8 CTR #100		U3
	SPDT HORIZ SLIDE	1	S1
<del></del>	HS ASM, T2 ISOLATED CH1. , ,	1	HS3
	HS ASM. T2 ISOLATED CH2. , .	1	HS4
	HS ASM, T2 NON-ISOLATED CH1.	1	HS1
	HS ASM, T2 NON-ISOLATED CH2.	1	H52
\- <del>-</del>	SPACER, 6X.125 AL BLK ANODIZ	8	HW1 , HW2 , HW3 , HW4 , HW5 , HW6 , HW7 ,
182378 1	STAGETT ON THE BER AROUTE		Hw8
102579-1 9	STAND, 1/4 RD SWAGE AL	2	HW25, HW26
<del></del>	POT, 5K LIN 21 DNT 12MM HORI	2	R100, R200
102333 3	OT, SK CIN 21 DNT T2MM HONT		11100111 <u>200</u>
			_
···			
102723-2	OPTO CELL ON-500 OHM	2	U100,U200
	BUMPER, Ø.4" TALL BLK W/ADH	3	7
<del></del>	0.47UF Z5U 1210 20% 50V	2	C144,C244
	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
	PNP 300V 500MA 50MHZ SQT-223	4	Q105,Q120,Q205,Q220
· · · · · · · · · · · · · · · · · · ·	0.4 OHM 1W 5% 2512 T/R	54	R1.R7.R152.R153.R154.R155.
783133 1	5.4 Orim 10 3% 2512 1711		R156, R157, R159, R167, R168,
			R169, R170, R171, R172, R252,
			R253, R254, R255, R256, R257.
			R259, R267, R268, R269, R270.
	-	_	
<del></del>	-		R271.R272.R300.R301.R302.
-			R303, R304, R305, R306, R307,
			R300, R309, R310, R311, R312,
	<del></del>	_	R400, R401, R402, R403, R404,
	<u> </u>		R405.R406.R407.R408.R409.
100010	2 005 488V 04574 775	,	R410, R411, R412
	2.2UF 160V RADIAL T/R	4	C136.C137.C236.C237
	WIRE, 16 BLK/WHT TAB X 5 X T		WP2
	SCREW.6-32 X.5 TORX PNHD SEM	2	HW27, HW28
	MACSD 8 AMP 400V TRIAC	2	0131.0231
<del></del>	CAP, .625ID X 1" VINYL	1	3
<del></del>	ADHESIVE LOCTITE 384 OUTPUT	<u> </u>	5
<del></del>	ACTIVATOR LOCTITE "OUTPUT"	0	6
<del>-</del>	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30
<del></del>	REL, 30A 24V SPST PCB W/FAST	2	K100.K200
<del></del>	SILICONE, CLEAR 30Z SYRINGE	0	4
1 26929-1 1	1/4" TRS/XLR COMBO PCB VERT	2	J500.J600

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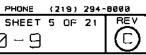
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JAW 11/4/98 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA FIOAD

SHEET 5 OF 21



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% HADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	Ø.1 MF 5ØV 10% Ø8Ø5	H 101*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	B200UF 110VDC ELECTROLYTIC	8 9
	C 7091-9	0.33 MF 50V CHIP 1206	И 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0 9*
C26	C 8576-8	100 MF 35V 10% ELEC	1 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	·	0.1 MF 50V 10% 0805	J 9*
C29	•	0.1 MF 50V 10% 0805	1 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	18
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
 C1Ø1	102465-1	.47UF 50V 20% RADIAL T/R	мэ
C102	C 6802-0	.47 MF 50V AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м в
C104	102438-101K2	100PF 200V 10% NPO 0805	м 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	· <del>· ·</del>	27PF 50V 10% NPO 0805 T/R	L 9*
C108		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0825	н 6*
C110	<del></del>	470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N 8*
C112	<del></del>	0.012 MF 50V 10% CHIP	0 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	NB
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115		0.1 MF 50V 10% 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	1 8
C119	<del> </del>	4700PF 50V 10% X7R 0805	I 7*
C120		100PF 200V 10% NPO 0805	I 7*
E121	C10196~1	2.2MF 50V 20% RAD T/R	G 8
C122	<del></del>	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C123	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C124	· - ·	0.1 MF 50V 10% 0805	N 10*
C120 C127		0.1 MF 50V 10% 0805	N 9*
C128	<del></del>	0.1 MF 50V 10% 0805	M 10*
C128 C129	<del></del>	0.1 MF 50V 10% 0805	M 9*
L12 <u>3</u>	A 1 1 7 2 / - 1 W 4 K 2		M 3 7
	-		
<u> </u>			

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 ISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 JAW 11/4/98
 DWG. NO.
 SHEET 6 OF 21 RE
 1718 WEST MISHAWAKA ROAD DRAWN

MD390D0

PROJ.



REF   DES   C.P. N.   DESCRIPTION   MAP   LOC   C138			PARTS LIST	
C131	REF DES	C. P. N.		MAP LOE.
C132	C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C133	C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C134       A11369-102J2       8.001UF 50V 5X NPO MLC 0805       M 7*         C135       102496-101K2       100PF 202V 10X NPO 0805       M 7*         C136       103210-1       2.2UF 160V RADIAL T/R       I 7         C137       103210-1       2.2UF 160V RADIAL T/R       I 7         C138       102430-020K2       2PF 200V 10X NPO 0805       M 7*         C139       A11427-104KZ       2.1 MF 50V 10X 0805       G 7*         C140       C 7091-9       0.33 MF 50V CHIP 1206       L 9         C141       A11369-330J2       33PF 50V 5X NPO MLC 0805       M 10         C141       A11369-330J2       33PF 50V 5X NPO MLC 0805       M 10         C143       A11427-103K5       0.91MF 50V 10X NPO 0805       M 9*         C144       103191-1       0.47VF 50V 10X NPO 0805       M 9*         C143       A11427-103K5       0.91MF 50V 5X XPT 1206       M 9*         C144       103191-1       0.47VF 50V 10X NPO 0805       M 9*         C201       102465-1       .47UF 50V 20X RADIAL T/R       J 9         C202       C 6002-0       .47 MF 50V 20X RADIAL T/R       K 9         C203       102436-506K2       20PF 200V 10X NPO 0805       J 9*         C204       102465-1	C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C135	C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C135	C134			м 7*
C136         103210-1         2.2UF 168V RADIAL T/R         I 7           C137         103218-1         2.2UF 168V RADIAL T/R         I 7           C138         102438-820K2         22FP 200V 10X NPO 0805         M 7*           C139         A11427-104KZ         2.1 MF 58V 10X NPO 0805         M 7*           C140         C 7091-9         0.33 MF 58V CHIP 1206         L 9           C141         A11369-330JZ         33PF 58V 5X NPO MLC 0805         M 10           C142         A11369-330JZ         33PF 58V 5X NPO MLC 0805         M 10           C143         A11427-103K5         0.01MF 58V 5X NPO MLC 0805         M 9*           C144         103191-1         0.47UF 25U 1218 28X 50V         G 7*           C201         102465-1         47UF 50V 20X RADIAL T/R         J 9           C202         C 5802-0         47 MF 58V AX CERM         K 9           C203         102465-1         22MF 25V 20X RAD T/R         K 9           C204         102438-1560K2         56PF 200V 10X NPO 0805         J 9*           C205         C10206-1         100 MF 25V 20X VRT ELEC         J 9           C206         102438-560K2         56PF 200V 10X NPO 0805         J 18           C207         A11369-270K2         27PF 50V 10X	C135			
C137				
C138       102438-820K2       82PF 200V 10X NPO 0805       M 7*         C139       A11427-104K2       2.1 MF 50V 10X 0805       G 7*         C140       C 7091-9       0.3 MF 50V CHIP 1205       L 9         C141       A11369-471K2       470PF 50V 10X NPO 0805 T/R       N 10         C142       A11369-33012       33PF 50V 5X NPO MLC 0805       M 10         C143       A11427-103K5       0.01MF 50V 5X XPR 1206       M 9*         C144       103191-1       0.47UF 25U 1210 20X 50V       G 7*         C201       102465-1       1.47UF 50V 20X RADIAL T/R       J 9         C202       C 5802-0       47 MF 50V 20X RADIAL T/R       J 9         C203       102465-1       22MF 25V 20X RAD T/R       K 9         C204       102498-101K2       100PF 200V 10X NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20X VERT ELEC       J 9*         C206       102438-560K2       56PF 200V 10X NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10X NPO 0805       J 9*         C208       102438-560K2       29PF 200V 10X NPO 0805       J 9*         C210       A11427-103K2       0.01MF 50V 10X NPO 0805       J 8*         C209       A11427-103K2 <td></td> <td></td> <td></td> <td></td>				
C139				
C140         C 7091-9         0.33 MF 50V CHIP 1206         L 9           C141         A11369-471K2         470PF 50V 102 NPO 0805 T/R         N 10           C142         A11369-390J2         397 50V 52 NPO MLC 0805         M 10           C143         A11427-103K5         0.01MF 50V 52 NPO MLC 0805         M 9*           C144         103191-1         0.47UF 25U 1210 20% 50V         G 7*           C201         102465-1         .47UF 50V 20% RADIAL T/R         J 9           C202         C 5602-0         .47 MF 50V AX CERM         K 9           C203         102467-1         22MF 25V 20% RAD T/R         K 9           C204         102438-101K2         100PF 200V 10% NPO 0805         J 9*           C205         C 10208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-508K2         56PF 200V 10% NPO 0805         J 9*           C207         A11369-270K2         27PF 50V 10% NPO 0805         J 10           C208         102438-620K2         56PF 200V 10% NPO 0805         J 10           C209         A11427-103K2         .01MF 50V 10% CHIP 8805         H 3*           C210         A11369-471K2         470PF 50V 10% NPO 0805         K 7*           C211         A11427-123K2				+
C141       A11369-471K2       470PF 50V 10% NPO 0805 T/R       N 10         C142       A11369-330J2       33PF 50V 5% NPO MLC 0805       M 10         C143       A11427-103K5       3.01MF 50V 5% NPO MLC 0805       M 9*         C144       103191-1       0.47UF 25U 1210 20% 50V       G 7*         C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20% RADIAL T/R       K 9         C204       102439-101K2       100PF 200V 10% NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9         C206       102439-5508K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10% NPO 0805       J 9*         C208       102439-620K2       22PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       0.01MF 50V 10% NPO 0805       J 10         C210       A11427-103K2       0.01MF 50V 10% NPO 0805       K 7*         C210       A11427-103K2       0.01MF 50V 10% NPO 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A				<del></del>
C142       A11369-330J2       33PF 50V 5X NPO MLC 0805       M 10         C143       A11427-103X5       0.01MF 50V 5X X7R 1206       M 9*         C144       103191-1       0.47UF 25U 1210 20X 50V       G 7*         C201       102465-1       .47UF 50V 20X RADIAL T/R       J 9         C202       C 5602-0       .47 MF 50V AX CERM       K 9         C203       102487-1       22MF 25V 20X RAD T/R       K 9         C204       102438-101K2       100PF 200V 10X NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20X VERT ELEC       J 9         C206       102438-50K2       56PF 200V 10X NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10X NPO 0805       J 9*         C208       102438-50K2       56PF 200V 10X NPO 0805       J 9*         C209       A11427-103K2       0.21MF 50V 10X NPO 0805       J 10         C209       A11427-103K2       0.21MF 50V 10X NPO 0805       H 3*         C210       A11427-103K2       0.01MF 50V 10X CHIP 0805       K 7*         C211       A11427-123K2       0.01MF 50V 10X CHIP 0805       K 7*         C212       A11427-123K2       0.01MF 50V 10X CHIP 0805       K 7*         C213       A1427-124K2<				
C143       A11427-103K5       8.01MF 50V 5% X7R 1206       M 9*         C144       103191-1       0.47UF 25U 1210 20% 50V       G 7*         C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       182467-1       22MF 25V 20% RAD T/R       K 9         C204       102438-101K2       100PF 200V 10% NPO 0805       J 9*         C205       C10206-4       100 MF 25V 20% VERT ELEC       J 9         C206       102438-560K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       27PF 56V 10% NPO 0805       J 10         C208       102438-620K2       29PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       0.01MF 50V 10% CHIP 0805       J 3*         C210       A11369-471K2       470PF 50V 10% NPO 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C213       102468-1       470F 10V 20% NP RAD T/R       K 8         C214       102468-1       470F 10V 20% NP RAD T/R       K 8         C215       A11427-104K2				-
C144       103191-1       0.47UF ZSU 1210 20% 50V       G 7*         C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20% RAD T/R       K 9         C204       102438-101K2 100FF 200V 10% NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9*         C206       102438-560K2 56FF 200V 10% NPO 0805       J 9*         C207       A11365-270K2 27FF 50V 10% NPO 0805       J 9*         C208       102438-60K2 82FF 200V 10% NPO 0805       J 10         C209       A11427-103K2 0.01MF 50V 10% CHIP 0805       J 10         C209       A11427-103K2 0.01MF 50V 10% CHIP 0805       K 7*         C210       A11427-103K2 0.01MF 50V 10% CHIP 0805       K 7*         C211       A11427-123K2 0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2 0.01MF 50V 10% CHIP 0805       K 7*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2 0.1 MF 50V 10% 0805       K 8*         C216       A11427-104K2 0.1 MF 50V 10% CHIP 0805				
C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 5602-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20% RAD T/R       K 9         C204       102498-101K2       100PF 200V 10% NPO 0905       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9*         C206       102438-550K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       22PF 50V 10% NPO 0805       J 10         C208       102438-620K2       52PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       22PF 50V 10% NPO 0805       J 10         C209       A11427-103K2       0.01MF 50V 10% NPO 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% NPO 0805       K 7*         C212       A11427-103K2       0.01MF 50V 10% NPO 0805       K 7*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-124K2       2.1 MF 50V 10% 0805       D 1*         C216       A11427-124K2       2.1 MF 50V 10% 0805       D 1*         C217       A11427-124K2				<del></del>
C202         C 5602-0         .47 MF 50V AX CERM         K 9           C203         102467-1         22MF 25V 20X RAD T/R         K 9           C204         102439-101K2         100PF 200V 10X NPO 0905         J 9*           C205         C10208-4         100 MF 25V 20X VERT ELEC         J 9           C206         102438-560K2         56PF 200V 10X NPO 0805         J 9*           C207         A11369-270K2         27PF 50V 10X NPO 0805         J 10           C209         102438-80K2         29PF 200V 10X NPO 0805         J 10           C209         A11427-103K2         0.01MF 50V 10X NPO 0805         J 10           C209         A11427-103K2         0.01MF 50V 10X NPO 0805         K 7*           C210         A11369-471K2         470PF 50V 10X CHIP 0805         K 7*           C211         A11427-103K2         0.01MF 50V 10X CHIP 0805         K 7*           C211         A11427-103K2         0.01MF 50V 10X CHIP 0805         K 7*           C212         A11427-103K2         0.012 MF 50V 10X CHIP 0805         K 7*           C213         A11427-104K2         0.01MF 50V 10X NPO 0805         K 8*           C214         102468-1         47UF 10V 20X NP RAD T/R         K 8*           C215         A11427-124K2				
C203       102457-1       22MF 25V 20% RAD T/R       K 9         C204       102438-101K2       100PF 200V 10% NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9         C206       102438-560K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10% NPO 0805       J 9*         C208       102438-820K2       29PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       2.01MF 50V 10% NPO 0805       J 10         C210       A11369-471K2       470PF 50V 10% NPO 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.01MF 50V 10% CHIP       L 8*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-472K2       4700PF 50V 10% CHIP 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% CHIP 0805       D 1*         C219       A11427-472K2       4700PF 50V 10% CHIP 0805       D 1*         C219       A1043				<del>-}</del>
C204       102438-101K2       100PF 200V 10% NPO 0905       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9         C206       102438-560K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10% NPO 0805       J 10         C208       102438-820K2       82PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       0.01MF 50V 10% NPO 0805       H 3*         C210       A11369-471K2       470PF 50V 10% NPO 0805       K 7*         C211       A11427-123K2       0.01MF 50V 10% CHIP 0805       K 7*         C211       A11427-123K2       0.012 MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.012 MF 50V 10% CHIP 0805       K 7*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2       0.1 MF 50V 10% CHIP 0805       J 2*         C216       A11427-472K2       4700PF 50V 10% XPR 0805       J 2*         C217       A11427-472K2       4700PF 50V 10% CHIP 0805       D 1*         C219       A10434-104JD       0.1 MF 250V 10% XPR 0805       D 1*         C219 <td></td> <td></td> <td></td> <td><del> </del></td>				<del> </del>
C205         C10208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-560K2         56PF 200V 10% NPO 0805         J 9*           C207         A11369-270K2         27PF 50V 10% NPO 0805         J 10           C208         102438-620K2         82PF 200V 10% NPO 0805         J 10           C209         A11427-103K2         0.01MF 50V 10% CHIP 0805         H 3*           C210         A11369-471K2         470PF 50V 10% CHIP 0805         K 7*           C211         A11427-103K2         0.01MF 50V 10% CHIP 0805         K 7*           C212         A11427-123K2         0.01MF 50V 10% CHIP 0805         K 7*           C213         102460-1         47UF 10V 20% NP RAD T/R         K 8           C214         102460-1         47UF 10V 20% NP RAD T/R         K 8           C215         A11427-124K2         2.1 MF 50V 10% 0805         K 8*           C216         A11427-472K2         4700PF 50V 10% CHIP 0805         J 2*           C217         A11427-272K2         2700PF 50V 10% CHIP 0805         D 1*           C218         A10434-104JD         0.1 MF 50V 10% CHIP 0805         D 1*           C219         A11427-272K2         4700PF 50V 10% CHIP 0805         D 1*           C210         A10434				<del>-</del>
C206       102438-560K2       56PF       200V       10%       NPD       0805       J       9*         C207       A11369-270K2       27PF       50V       10%       NPD       0805       J       10         C208       102438-820K2       82PF       200V       10%       NPD       0805       J       10         C209       A11427-103K2       0.01MF       50V       10%       NPD       0805       T/R       K       7*         C210       A11369-471K2       470PF       50V       10%       NPD       0805       T/R       K       7*         C211       A11427-103K2       0.01MF       50V       10%       CHIP       0805       K       7*         C212       A11427-123K2       0.01MF       50V       10%       CHIP       0805       K       7*         C212       A11427-123K2       0.01MF       50V       10%       CHIP       0805       K       8*         C213       102468-1       47UF       10%       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10%       20%       NP       RAD       T/R       K<		_		<del>-</del>
C207       A11369-278K2       27PF 50V 10% NPO 0805 T/R       J 9*         C208       102438-820K2       82PF 200V 10% NPO 0805       J 10         C209       A11427-103K2       0.01MF 50V 10% CHIP 0805       H 3*         C210       A11369-471K2       470PF 50V 10% NPO 0805 T/R       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.01MF 50V 10% CHIP       L 8*         C213       102468-1       470F 10V 20% NP RAD T/R       K 8         C214       102468-1       470F 10V 20% NP RAD T/R       K 8         C215       A11427-104K2       0.1 MF 50V 10% 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% XRR 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% XRR 0805       D 1*         C219       A10434-104JD       0.1 MF 250V 5% MTL POLY       I 1         C220       102438-101K2       100PF 200V 10% XRR 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1				+
C208       102438-820K2       82PF       200 V       10%       NPO       0805       J       10         C209       A11427-103K2       0.01MF       50V       10%       CHIP       0805       H       3*         C210       A11369-471K2       470PF       50V       10%       CHIP       0805       K       7*         C211       A11427-103K2       0.01MF       50V       10%       CHIP       L       8*         C212       A11427-123K2       0.012 MF       50V       10%       CHIP       L       8*         C213       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C215       A11427-104K2       0.1       MF       50V       10%       20805       K       8*         C216       A11427-272K2       2700PF       50V       10%       CHIP       0805       D       1*         C217       A11427-272K2       2700PF       50V       10%       XTR       0805       E       1*         C218       A1				- "
C209       A11427-103K2       0.01MF       50V       10%       CHIP       0805       H       3*         C210       A11369-471K2       470PF       50V       10%       NPO       0805       T/R       K       7*         C211       A11427-103K2       2.01MF       50V       10%       CHIP       0805       K       7*         C212       A11427-123K2       0.012       MF       50V       10%       CHIP       L       8*         C213       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C215       A11427-104K2       0.1       MF       50V       10%       0805       K       8*         C216       A11427-472K2       0.1       MF       50V       10%       20805       K       8*         C216       A11427-472K2       0.1       MF       250V       50%       MTL       POLY       I       1         C216       A10434-104JD       0.1       MF       250V       5%       MTL       POLY       I       1         C219       A11427-104K2       2.00PF       20V       10%       XPR       0805       E				<del> </del>
C210       A11369-471K2       470PF 50V 10% NPO 0805 T/R       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.012 MF 50V 10% CHIP       L 8*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2       0.1 MF 50V 10% 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% NPO 0805       E 1*         C220       102430-101K2       100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8*         C222       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2       0.1 MF 50V 10% 0805       K 10         C227       A11427-104K2 <t< td=""><td></td><td></td><td></td><td>J 10*</td></t<>				J 10*
C211       A11427-103K2       0.01MF       50V       10%       CHIP       0805       K       7*         C212       A11427-123K2       0.012 MF       50V       10%       CHIP       L       8*         C213       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C215       A11427-104K2       0.1       MF       50V       10%       0805       K       8*         C216       A11427-472K2       4700PF       50V       10%       X7R       0805       D       1*         C217       A11427-272K2       2700PF       50V       10%       CHIP       0805       D       1*         C218       A10434-104JD       0.1       MF       250V       5%       MTL       POLY       I       1         C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10%       NPO       0805       E       8*				<del></del>
C212       A11427-123K2       0.012       MF 50V 10% CHIP       L 8*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2       0.1       MF 50V 10% 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1       MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1       MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2       0.1       MF 50V 10% 0805       K 10         C227       A11427-104K2       0.1       MF 50V 10% 0805       K 9*         C228       A11427-104K2       0.1       MF 50V 10% 0805				
C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2 0.1 MF 50V 10% 0805       K 8*         C216       A11427-472K2 4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2 2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2 4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       F 9         C225       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         <				<del></del>
C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-104K2 0.1 MF 50V 10% 0805       K 8*         C216       A11427-472K2 4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2 2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2 4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.2MF 50V 10% 0805       K 10         C225       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*		A11427-123K2		
C215       A11427-104K2       0.1       MF 50V 10% 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1       MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1       MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2       0.1       MF 50V 10% 0805       K 10         C227       A11427-104K2       0.1       MF 50V 10% 0805       K 9*         C228       A11427-104K2       0.1       MF 50V 10% 0805       J 9*         C230       A11427-104K2       0.1       MF 50V 10% 0805       E 8*         C231       A11427-104K2       0.1       MF 50V 10% 0		102468-1		
C216       A11427-472K2       4700PF       50V       10%       X7R       0805       J       2*         C217       A11427-272K2       2700PF       50V       10%       CHIP       0805       D       1*         C218       A10434-104JD       0.1       MF       250V       5%       MTL       POLY       I       1         C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10%       X7R       0805       D       2*         C220       102438-101K2       100PF       200V       10%       NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20%       RAD       T/R       E       8*         C223       C 9157-6       100UF       16V       20%       NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20%       RAD       T/R       J       9         C226       A11427-104K2       0.1       MF       50V       10%       0805       K       10     <				K 8
C217       A11427-272K2       2700PF       50V       10%       CHIP       0805       D       1*         C218       A10434-104JD       0.1       MF       250V       5%       MTL       POLY       I       1         C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10%       NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20%       RAD       T/R       E       8         C222       A11427-104K2       0.1       MF       50V       10%       0805       E       8*         C223       C       9157-6       100UF       16V       20%       NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20%       RAD       T/R       J       9         C226       A11427-104K2       0.1       MF       50V       10%       0805       K       10         C227       A11427-104K2       0.1       MF       50V       10%       0805       J       3				
C218       A10434-104JD       0.1 MF       250V       5% MTL       POLY       I       1         C219       A11427-472K2       4700PF       50V       10% X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10% NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20% RAD       T/R       E       8         C222       A11427-104K2       0.1 MF       50V       10% 0805       E       8*         C223       C       9157-6       100UF       16V       20% NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20% RAD       T/R       J       9         C226       A11427-104K2       0.1 MF       50V       10% 0805       K       10         C227       A11427-104K2       0.1 MF       50V       10% 0805       J       10         C228       A11427-104K2       0.1 MF       50V       10% 0805       J       9*         C230       A11427-104K2       0.1 MF       50V       10% 0805       E       7*         C232       A11427-104K2<	C216			J 2*
C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E 1*         C220       102438-101K2       100PF       200V       10%       NPO       0805       D 2*         C221       C10196-1       2.2MF       50V       20%       RAD       T/R       E 8         C222       A11427-104K2       0.1       MF       50V       10%       0805       E 8*         C223       C       9157-6       100UF       16V       20%       NP       ELEC       RAD       T/R       F 9         C224       C10196-1       2.2MF       50V       20%       RAD       T/R       J 9         C226       A11427-104K2       0.1       MF       50V       10%       0805       K 10         C227       A11427-104K2       0.1       MF       50V       10%       0805       K 9*         C228       A11427-104K2       0.1       MF       50V       10%       0805       J 9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E 7*         C232       A11427-104K2       0.1       MF       50V       10%       0805	C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C220       102438-101K2       100PF       200V       10% NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20% RAD       T/R       E       8         C222       A11427-104K2       0.1 MF       50V       10% 0805       E       8*         C223       C       9157-6       100UF       16V       20% NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20% RAD       T/R       J       9         C226       A11427-104K2       0.1 MF       50V       10% 0805       K       10         C227       A11427-104K2       0.1 MF       50V       10% 0805       J       10         C228       A11427-104K2       0.1 MF       50V       10% 0805       J       9*         C230       A11427-104K2       0.1 MF       50V       10% 0805       E       7*         C231       A11427-104K2       0.1 MF       50V       10% 0805       E       7*         C232       A11427-104K2       0.1 MF       50V       10% 0805       E       7*	<del> </del>	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*	C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1 *
C222       A11427-104K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       E 8*         C223       C 9157-6       1ØØUF 16V 2Ø% NP ELEC RAD T/R       F 9         C224       C1Ø196-1       2.2MF 5ØV 2Ø% RAD T/R       J 9         C226       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       K 1Ø         C227       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       K 9*         C228       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       J 1Ø         C229       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       J 9*         C230       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       E 8*         C231       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       E 7*         C232       A11427-1Ø4K2       Ø.1 MF 5ØV 1Ø% Ø8Ø5       E 7*	C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*	C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*	C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C226       A11427-104K2       0.1       MF       50V       10%       0805       K       10         C227       A11427-104K2       0.1       MF       50V       10%       0805       K       9*         C228       A11427-104K2       0.1       MF       50V       10%       0805       J       10         C229       A11427-104K2       0.1       MF       50V       10%       0805       J       9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E       7*         C231       A11427-104K2       0.1       MF       50V       10%       0805       E       7*         C232       A11427-104K2       0.1       MF       50V       10%       0805       E       7*	C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C227       A11427-104K2       0.1       MF       50V       10%       0805       K       9*         C228       A11427-104K2       0.1       MF       50V       10%       0805       J       10         C229       A11427-104K2       0.1       MF       50V       10%       0805       J       9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E       8*         C231       A11427-104K2       0.1       MF       50V       10%       0805       E       7*         C232       A11427-104K2       0.1       MF       50V       10%       0805       E       7*	C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C228       A11427-104K2       0.1       MF       50V       10%       0805       J       10         C229       A11427-104K2       0.1       MF       50V       10%       0805       J       9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E       8*         C231       A11427-104K2       0.1       MF       50V       10%       0805       E       7*         C232       A11427-104K2       0.1       MF       50V       10%       0805       E       7*	C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C229       A11427-104K2       Ø.1       MF       50V       10%       Ø805       J       9*         C230       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*	C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C229       A11427-104K2       Ø.1       MF       50V       10%       Ø805       J       9*         C230       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*	C228	A11427-104K2	2.1 MF 50V 10% 0805	J 10*
C230       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*	C229	A11427-104K2	0.1 MF 50V 10% 0805	J 8*
C231       A11427-104K2       0.1       MF 50V 10% 0805       E 7*         C232       A11427-104K2       0.1       MF 50V 10% 0805       E 7*	C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C232 A11427-104K2 0.1 MF 50V 10% 0805 E 7*				E 7*
	- <del>-</del>	· <del>·</del>		E 7*
				D 8*
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1718 WEST MISHAWAKA ROAD ELK:
DRIAWN JAW 11/4/98 DV

MD390D0

PAOJ.

ELKHART, INDIANA 46517
DWG. NO.

PHONE (219) 294-8000 SHEET 7 OF 21 RE



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	<del>_</del> .	100PF 200V 10% NPO 0805	J 2*
C236	103210+1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C23B	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C24Ø	C 7091+9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427~104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C8Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	8 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
C608	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C603		OPEN	8 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J B
D7	C 2851-1	1N4004 SILICON RECT.	J 8
DB	C 3549-0	DIODE ZENER, 10V. 1N52408	J 8
DB	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON MECT.	I 10
D13	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D1@1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 8503-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L, 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<u>M 9*</u>
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L S*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D108	€ 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
			-

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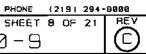
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ELKHART, INDIANA 46517 DWG, NO. DRAWN JAW 11/4/98 PROJ. мрзэйрй

1718 WEST MISHAWAKA ROAD

SHEET 8 OF 21



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D111	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N B*
D112	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	G B*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D11B	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 9*
D122	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	* P M
D123	C 9283-Ø	DIODE, 1NB14/1N4148 SOT-23 SMT	G 9*
D124	C 9283~Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-Ø	DIODE, 1N914/1N414B 50T-23 SMT	M 7
D127	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	м в
D128	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D2Ø1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIGDE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	K B*
D207	C 9203-0	DIODE. 1N914/1N4148 SOT-23 SMT	K B*
D209	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К в*
D210	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE: 1N914/1N4148 SDT-23 SMT	K 10*
D217	C 9283-0	DIODE: 1N314/1N4148 3D1-23 SMT	L 10*
D21B	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	J 9*
D221	C 9283-0	DIODE, 1N914/1N4148 S01-23 SMT	K 9*
D223	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	E 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	£ 7*
D224 D225	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	F 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	<u> </u>
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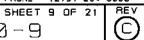
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1218 WEST	MISHAWA	KA ROAD	ELKHART	٠,
DRAWN	WAŁ	11/4/98	DWG.	N
PROJ.	MD	390D0		

 ELKHART, INDIANA 45517
 PHONE (219) 294-8888

 DWG, NO.
 SHEET 9 OF 21 RE



	•	PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D23Ø	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 9
Ei	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1.	L 6
H52	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM. T2 ISOLATED CH1	G 6
HS4	102574~3	HS ASM, T2 ISOLATED CH2, , .	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HWB	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	E 4
HWB	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW1 2			J 5
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 9
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW1 5	A10020-7 A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW16	A11056~1		A 4
•		6-32 HEX NUT W/BELLEVILLE	
HW1 B	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/8ELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11055-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND. 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 AD SWAGE AL	A 4
HW27		SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	<u>G 10</u>
13	102472-3	HDA, 16POS .100 CTR SGL ROW	M B
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK. 6P4 COND MODULAR R/A	<u> </u>
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
1200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
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DRAWN JAW 11/4/98 DWG PROJ. MD390D0

ELKHART, INDIANA 46517 PHONE (2191 294-8822 DWG. NO. SHEET 10 OF 21 RE



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1500	126929-1	1/4" TRS/XLR COMBO PCB VERT	В 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	€ 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	нв
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
03	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1	MMBT3904 CHIP NPN	M 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	1 6
0105	103193-1	PNP 300V 500MA 50MHZ SDT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ 50T-223	M 7*
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q1Ø9	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
UI I Z	103200 1	NI 14 2584 15A 58MITZ 23C3242	- ' '
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0120	103193-1	PNP 300V 500MA 50MHZ SDT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 25C5242	I 7
<u>UIZI</u>	103200-1	NEW 2384 134 38MHZ 25C5Z4Z	1 /
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04.00	5 74.5	MADTOGOA CUTO NOV	
0129	E 7448-1	MMBT3904 CHIP NPN	6.9*
0131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER SAS BY THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K_9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	<u>L 9*</u>
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MWARE JAW 11/4/98 PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 11 OF 21 RE DWG. NO. 102140-9



		PARTS LIST	· · · · · ·
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252~5	2N3904 40V NPN TRANSISTOR	I 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
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. "			
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MACSD 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F B
Q233	102480-1	FET. N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	) 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J B*
R3	A1 <u>1371-3341</u>	330K 0.10W 5% CHIP 0805	# B I
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
RB	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
RS	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
Fl14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1 <u>W 1% CHIP 0805</u>	F 10*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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# CROWN INTERNATIONAL INC.

TITIS WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE
DRAWN JAW 11/4/98 DWG. NO. SHEET
PROJ. MD39000 1 2 1 4 2 - 9

SHEET 12 OF 21 REV

PHONE (219) 294-8000

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		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	7 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1
R101		1K 0.10W 1% CHIP 0805	M 10*
R102		392K 0.10W 1% CHIP 0805	N 9*
R103		499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	и 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R105	A11368-10011	1K 0.10W 1% CHIP 0805	м 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	м 9*
R110	<del></del>	1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K Ø.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	м 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K Ø.25W 5% CHIP 121Ø	* e M
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	м 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	м 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	м 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	же м
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130	-	OPEN	□ 8*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	Н 6*
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#### INC. CROWN INTERNATIONAL

JAW 11/4/98 DRAWN MD390D0

1718 WEST MISHAWAKA ROAD

PROJ.

ELKHART, INDIANA 46517 PHONE (219) 294-8000 DWG, NO. SHEET 13 OF 21 RE



		PARTS LIST	٦
REF DES	C, P. N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	н 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	м 7*
R136	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-B211	B20 OHM 0.10W 5% CHIP	0.8*
R142	A11371~4724	4.7K OHM 0.50W 5% CHIP 2010	0.8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R15Ø	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	к 5*
R154	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/H	N 5*
B158	A10266-2R74	2.7 OHM 2W 5% CF	18
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	Н 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.8 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
អា71	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206.	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021		G 8*
R177	A11368-10021		н в*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	* E N
R179		100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031		F B*
R184		20K 0.25W 1% CHIP 1210	F 9*
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#### CROWN INC. INTERNATIONAL

1718 WEST MISHAWAKA ROAD

| DWG. NO. | SHEET 14 OF 21 | RE

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JAW 11/4/98 DRAWN PROJ. MD390D0



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 1@*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 5*
R192	A11368-80432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*
F197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0802	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
F201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L S*
R203		499 OHM 0.10W 1% CHIP 0805	L 9*
R2Ø4		10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	м 1*
R2Ø6	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R2Ø9		19.1K 0.125W 1% CHIP 1206	K 9*
R210		1K 0.10w 1% CHIP 0805	J 9*
R211	•	10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K Ø.25W 1% MF	J 9
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K 0.1W 1% CHIP 0805	J 10*
R215		58.1K 0.10W 1% CHIP	J 10×
R216		226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 121Ø	J 9*
R22Ø	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K Ø.10W 1% CHIP 0805	к 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224		158K Ø.10W 1% CHIP 0805	к э*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K Ø.10W 5% CHIP Ø8Ø5	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN STATE OF THE	L 7*
R231	1	OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н з*
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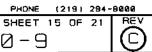
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JAW 11/4/98 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 15 OF 21 102140-9



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST THIMMER T/R	J 7
R235	A11371-3923	3.9K Ø.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
8238	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K Ø.25W 5% CHIP 121Ø	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K Ø.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	Ø.4 OHM 1W 5% 2512 T/R	К 3*
R254	103199-1	Ø.4 OHM 1W 5% 2512 T/R	į 4*
R255	103199-1	D.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*
R26B	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н з*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021		E 8*
R277	A11368-10021		E 8*
R27B	A11368-90921		L 9*
R279	A11368-10031		E 7*
R280	A11368-39231		E 8*
R281	A11371-6B14	680 OHM 0.50W 5% CHIP	M 1 *
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021		F 8*
R286	A11368-10031		L 10*
,1200	777300 18831	1000 0.17 12 01121 0000	
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DHAWN JAW 11/4/98 PROJ. мдзэйрй

1718 WEST MISHAWAKA ROAD

 
 ELKHART, INDIANA 46517
 PHONE
 (219) 294-8000

 DWG. NO.
 SHEET 16 OF 21
 RE
 <u> 102140-</u>9



i		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K Ø.10W 1% CHIP 0805	K 10*
8289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R29Ø	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	№ 3*
8292		604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296		10K 1/10W 1% CHIP 0805	K 9*
R297		6.19K 0.10W 1% CHIP 0805	K 10
R298	ATTOO GTATT	OPEN 2.784 1/2 CITT 8085	K 10
	A11271-8882		+
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199~1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM tW 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309 _	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R31Ø	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	<del></del>	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10 <u>011</u>	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 1 <u>Ø*</u>
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371~0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	рз*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R4Ø3	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	м э*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	и э*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411_	103199~1	0.4 OHM 1W 5% 2512 T/R	H 4*
			i"

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#### INC. CROWN INTERNATIONAL

DRAWN JAW 11/4/98 MD390D0

1718 WEST MISHAWAKA ROAD

PROJ.

ELKHART. INDIANA 46517 PHONE (219) 294-8000
DWG. NO. SHEET 17 OF 21 RE



REF DES C. P. N. DESCRIPTION			PARTS LIST	
R413	REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R414	R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R415	R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R416	R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R417	R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R418	R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R419	R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R420	R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	к 8
R421         A11371-5R65         5.6 OHM 1W 5% CHIP 2512         H 1%           R422         A11371-1013         180 OHM 25W 5% 1210 SMT T/R         J 9           R423         A11371-2020         0.0 OHM JUMPER CHIP 1206         F 8           R500         A11368-18021         18K 1/10W 1% CHIP 8005         A 3           R501         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R502         A11368-18021         18K 1/10W 1% CHIP 8005         B 2           R503         A11368-18021         18K 1/10W 1% CHIP 8005         B 2           R504         A11368-18021         18K 1/10W 1% CHIP 8005         B 2           R506         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R506         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R506         A11368-18021         18K 1/10W 1% CHIP 8005         A 1           R601         A11368-18021         18K 1/10W 1% CHIP 8005         A 1           R602         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R603         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R604         A11368-18021         18K 1/10W 1% CHIP 8005         A 2           R606         A11368-18021 <td>R419</td> <td></td> <td>OPEN</td> <td>K 10*</td>	R419		OPEN	K 10*
R422	R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R423	R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R508	R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R508	R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R501	·	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R503	R501	A11368-10021	10K 1/10W 1% CHIP 0805	•
R594	R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504		A11368-10021		
R596	R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R608	R506			A 2
R601	R5Ø8		OPEN	C 2
R602	R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R603	R601			A 1
R603	R602			A 2
R606	R603	A11368-10021		
R607	R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R608	R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
S1       102488-1       SPDT HORIZ SLIDE       L       10         S2       C 7325-1       2P 2 POS. PC SLIDE SW.       L       10         TB1       102475-1       BLOCK. 5 POS TERMINAL.       A       2         TP38       C 9896-9       TEST POINT LOOP       K       1         TP39       C 9895-9       TEST POINT LOOP       N       7         U1       C 5095-2       POS. 15 VOLT REG.       H       10         U1X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H       9         U2       C 5096-0       NEG. 15 VOLT REG.       H       9         U2X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H       9         U3       102486-1       OPTO BJT NPN SOIC-8 CTR *100%       N       10         U4       C 8262-5       MC33078D DUAL LO NOISE OP AMP       I       9         U5       C 8262-5       MC33078D DUAL LO NOISE OP AMP       M       9         U101       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N       9         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       R       7         U106       H42902-9       ASM. THERMAL SENSE       N       6	R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
52       C 7325-1       2P 2 POS. PC SLIDE SW.       L 10         TB1       102475-1       BLOCK. 5 POS TERMINAL.       A 2         TP36       C 9896-9       TEST POINT LOOP       K 1         TP39       C 9896-9       TEST POINT LOOP       N 7         U1       C 5095-2       POS. 15 VOLT REG.       H 10         U1X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 9         U2X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 9         U3       102486-1       OPTO BJT NPN SOIC-8 CTR *100%       N 10         U4       C 8262-5       MC33078D DUAL LO NOISE OP AMP       I 9         U5       C 8262-5       MC33078D DUAL LO NOISE OP AMP       N 9         U101       C 9012-3       MC33079D QUAD LO NOISE OP AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U104       C 9038-9       COMPARATOR, QUAD LM339D SO-14       N 6         U200       102723-2       OPTO CELL ON-500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       N 6         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	R608		OPEN	C 1
TB1 102475-1 BLOCK. 5 POS TERMINAL A 2 TP38 C 9896-9 TEST POINT LOOP K 1 TP39 C 9896-9 TEST POINT LOOP N 7 U1 C 5095-2 POS. 15 VOLT REG. H 10 U1X C 9918-1 TO220 VERT CLIP-ON HEATSINK H 10 U2 C 5096-0 NEG. 15 VOLT REG. H 9 U2X C 9918-1 TO220 VERT CLIP-ON HEATSINK H 9 U3 102486-1 OPTO BJT NPN SOIC-8 CTR 100% N 10 U4 C 8252-5 MC33078D DUAL LO NOISE OP AMP I 9 U100 102723-2 OPTO CELL ON-500 OHM M 9 U101 C 9038-8 COMPARATOR, QUAD LM339D SO-14 G 7 U106 H42902-9 ASM, THERMAL SENSE N 6 U201 C 9012-3 MC33079D QUAD LO NOISE OP AMP F 7 U107 C 9012-3 MC33079D QUAD LO NOISE OP AMP F 7 U108 H42902-9 ASM, THERMAL SENSE N 6 U201 C 9012-3 MC33079D QUAD LO NOISE OP AMP J 10 U202 C 9038-8 COMPARATOR, QUAD LM339D SO-14 K 9 U201 C 9012-3 MC33079D QUAD LO NOISE OP AMP F 7 U106 H42902-9 ASM, THERMAL SENSE N 6 U200 102723-2 OPTO CELL ON-500 OHM K 9 U201 C 9012-3 MC33079D QUAD LO NOISE OP AMP J 10	S1	102488-1	SPDT HORIZ SLIDE	L 10
TP38         C 9896-9         TEST POINT LOOP         K 1           TP39         C 9896-9         TEST POINT LOOP         N 7           U1         C 5095-2         POS. 15 VOLT REG.         H 10           U1X         C 9918-1         TO220 VERT CLIP-ON HEATSINK         H 9           U2X         C 9918-1         TO220 VERT CLIP-ON HEATSINK         H 9           U3         102496-1         OPTO BJT NPN SOIC-8 CTR *100%         N 10           U4         C 8262-5         MC33078D DUAL LO NOISE OP AMP         I 9           U5         C 8262-5         MC33078D DUAL LO NOISE OP AMP         N 9           U100         102723-2         OPTO CELL ON*500 OHM         M 9           U101         C 9012-3         MC33079D QUAD LO NOISE OP AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON*500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9012-3         MC33079D QUAD LO NOISE OP AMP	\$2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TP39         C 9896-9         TEST POINT LOOP         N 7           U1         C 5095-2         POS. 15 VOLT REG.         H 10           U1X         C 9918-1         TO220 VERT CLIP-ON HEATSINK         H 9           U2X         C 9918-1         TO220 VERT CLIP-ON HEATSINK         H 9           U3         102486-1         OPTO BJT NPN SOIC-8 CTR = 100%         N 10           U4         C 8262-5         MC33078D DUAL LO NOISE OP AMP         I 9           U5         C 8262-5         MC33078D DUAL LO NOISE OP AMP         N 9           U100         102723-2         OPTO CELL ON-500 OHM         M 9           U101         C 9012-3         MC33079D OUAD LO NOISE OP AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-8         COMPARATOR, QUAD LM339D SO-14         G 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON-500 OHM         K 9           U201         C 9012-3         MC33079D OUAD LO NOISE OP AMP         J 10           U202         C 9012-3         MC33079D OUAD LO NOISE OP AMP         K 9	TBI	102475-1	BLOCK, 5 POS TEAMINAL	A 2
U1       C 5095-2       POS. 15 VOLT REG.       H 10         U1X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 9         U2       C 5096-0       NEG. 15 VOLT REG.       H 9         U2X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 9         U3       102486-1       OPTO BJT NPN SOIC-8 CTR +100%       N 10         U4       C 8262-5       MC33078D DUAL LO NOISE OP AMP       I 9         U5       C 8262-5       MC33078D DUAL LO NOISE OP AMP       N 9         U100       102723-2       OPTO CELL ON-500 OHM       M 9         U101       C 9012-3       MC33079D QUAD LO NOISE OP AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U105       C 9038-8       COMPARATOR, QUAD LM339D SO-14       G 7         U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON-500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	TP36	C 9896-9	TEST POINT LOOP	K 1
U1X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 10         U2       C 5096-0       NEG. 15 VOLT REG.       H 9         U2X       C 9918-1       TO220 VERT CLIP-ON HEATSINK       H 9         U3       102486-1       OPTO BJT NPN SOIC-8 CTR *100%       N 10         U4       C 8262-5       MC33078D DUAL LO NOISE OP AMP       I 9         U5       C 8262-5       MC33078D DUAL LO NOISE OP AMP       N 9         U100       102723-2       OPTO CELL ON-500 OHM       M 9         U101       C 9012-3       MC33079D QUAD LO NOISE OP AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U105       C 8262-5       MC33078D DUAL LO NOISE OP AMP       F 7         U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON-500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	TP39	C 9896-9	TEST POINT LOOP	N 7
U2         C 5095-0         NEG. 15 VOLT REG.         H 9           U2X         C 9918-1         T0220 VERT CLIP-ON HEATSINK         H 9           U3         102486-1         OPTO BJT NPN SOIC-8 CTR *100%         N 10           U4         C 8262-5         MC33078D DUAL LO NOISE OP AMP         I 9           U5         C 8262-5         MC33078D DUAL LO NOISE OP AMP         N 9           U100         102723-2         OPTO CELL GN*500 OHM         M 9           U101         C 9012-3         MC33079D QUAD LO NOISE OP AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-8         COMPARATOR, QUAD LM339D SO-14         G 7           U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON*500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D SO-14         K 9	⊔1	C 5095-2	POS. 15 VOLT REG.	H 10
U2X       C 9918-1       T0220 VERT CLIP-ON HEATSINK       H 9         U3       102486-1       OPTO BJT NPN SOIC-8 CTR *100%       N 10         U4       C 8262-5       MC33078D DUAL LO NOISE OP AMP       I 9         U5       C 8262-5       MC33078D DUAL LO NOISE OP AMP       N 9         U100       102723-2       OPTO CELL ON*500 OHM       M 9         U101       C 9012-3       MC33079D OUAD LO NOISE OP AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U104       C 9038-8       COMPARATOR, QUAD LM339D SO-14       G 7         U105       C 8262-5       MC33078D DUAL LO NOISE OP AMP       F 7         U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON*500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	LI1X	C 9918~1	TO220 VERT CLIP-ON HEATSINK	H 10
U3       102486-1       OPTO BJT NPN SOIC-8 CTR *100%       N 10         U4       C 8262-5       MC33078D DUAL LO NOISE OF AMP       I 9         U5       C 8262-5       MC33078D DUAL LO NOISE OF AMP       N 9         U100       102723-2       OPTO CELL ON*500 OHM       M 9         U101       C 9012-3       MC33079D QUAD LO NOISE OF AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U104       C 9038-8       COMPARATOR, QUAD LM339D SO-14       G 7         U105       C 8262-5       MC33078D DUAL LO NOISE OF AMP       F 7         U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON*500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OF AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	⊔2	C 5096-0	NEG. 15 VOLT REG.	н 9
U4         C 8262-5         MC33078D DUAL LO NOISE OF AMP         I 9           U5         C 8262-5         MC33078D DUAL LO NOISE OF AMP         N 9           U100         102723-2         OPTO CELL ON-500 OHM         M 9           U101         C 9012-3         MC33079D QUAD LO NOISE OF AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-8         COMPARATOR, QUAD LM339D SO-14         G 7           U105         C 8262-5         MC33078D DUAL LO NOISE OF AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON-500 OHM         K 9           U201         C 9038-8         COMPARATOR, QUAD LM339D SO-14         K 9	⊔2X	C 9918-1	TOZZØ VERT CLIP-ON HEATSINK	Н 9
U5         C 8262-5         MC33078D DUAL LO NOISE OP AMP         N 9           U100         102723-2         OPTO CELL ON-500 OHM         M 9           U101         C 9012-3         MC33079D QUAD LO NOISE OP AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-8         COMPARATOR, QUAD LM339D SO-14         G 7           U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON-500 OHM         K 9           U201         C 9038-8         COMPARATOR, QUAD LM339D SO-14         K 9	U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U100         102723-2         OPTO CELL ON=500 OHM         M 9           U101         C 9012-3         MC33079D QUAD LO NOISE OP AMP         M 10           U102         C 9038-8         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-8         COMPARATOR, QUAD LM339D SO-14         G 7           U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON=500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D SO-14         K 9	U4	C 8262-5	MC3307BD DUAL LO NOISE OF AMP	I 9
U101       C 9012-3       MC33079D QUAD LO NOISE OP AMP       M 10         U102       C 9038-8       COMPARATOR, QUAD LM339D SO-14       N 9         U104       C 9038-8       COMPARATOR, QUAD LM339D SO-14       G 7         U105       C 8262-5       MC33078D DUAL LO NOISE OP AMP       F 7         U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON-500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D 50-14       K 9	U5	C B262-5	MC33078D DUAL LO NOISE OF AMP	N 9
U102         C 9038-B         COMPARATOR, QUAD LM339D SO-14         N 9           U104         C 9038-B         COMPARATOR, QUAD LM339D SO-14         G 7           U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON-500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D SO-14         K 9	U100	102723-2	OPTO CELL ON*500 OHM	е м
U104	⊔1@1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U105         C 8262-5         MC33078D DUAL LO NOISE OP AMP         F 7           U106         H42902-9         ASM, THERMAL SENSE         N 6           U200         102723-2         OPTO CELL ON=500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D 50-14         K 9	U102	C 9038-8	COMPARATOR, QUAD LM339D 50-14	NS
U106       H42902-9       ASM, THERMAL SENSE       N 6         U200       102723-2       OPTO CELL ON=500 OHM       K 9         U201       C 9012-3       MC33079D QUAD LO NOISE OP AMP       J 10         U202       C 9038-8       COMPARATOR, QUAD LM339D SO-14       K 9	U104	C 9038~8	COMPARATOR, QUAD LM339D SO-14	G 7
U200         102723-2         OPTO CELL ON=500 OHM         K 9           U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D 50-14         K 9	U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U201         C 9012-3         MC33079D QUAD LO NOISE OP AMP         J 10           U202         C 9038-8         COMPARATOR, QUAD LM339D 50-14         K 9	U106	H42902-9	ASM, THERMAL SENSE	N 6
U202 C 9038-8 COMPARATOR, QUAD LM339D SO-14 K 9	U200	102723-2	OPTO CELL ON-500 OHM	K 9
	U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U204 C 9038-8 COMPARATOR, QUAD LM339D 50-14 E 7	U202		COMPARATOR, QUAD LM339D 50-14	К 9
	⊔204	C 9038-8	COMPARATOR, QUAD LM339D 50-14	E 7

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1718 WEST MISHAWAKA ROAD JAW 11/4/98 DRAWN мрээрра

PROJ.

DWG. NO. SHEET 18 OF 21 RE



2       101016-1       L8L, BARCODE. , .       SEE COMP MAR         3       125242-1       CAP625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR		•	PARTS LIST	
U206       H42902-9       ASM. THERMAL SENSE       N 3         U508       C 9012-3       MC33079D QUAD LO NDISE OP AMP       A 2         WP1       A11378-A050U WIRE, 16 RED FAST X 5 X TERM       A 10         WP2       103331-N050R WIRE, 16 BLK/WHT TAB X 5 X T       A 9         WP3       A11379-C050U WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       A12125-3140K WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       LBL, BARCODE       SEE COMP MAR         3       125242-1       CAP625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 394 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP M	REF DES	C. P. N.	DESCRIPTION	MAP LOC.
US00   C 9012-3   MC33079D QUAD LO NDISE OP AMP   A 2	U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U500   C 9012-3	U2Ø6	H42902-9	ASM, THERMAL SENSE	N 3
WP2       103331-N050R       WIRE, 16 BLK/WHT TAB X 5 X T       A 9         WP3       A11379-C050U       WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       A12125-3140K       WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       LBL, BARCODE,       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126025-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR	U500	C 9012-3	MC33079D QUAD LO NDISE OP AMP	A 2
WP3       A11379-C050U       WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       A12125-3140K       WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAE         2       101016-1       LBL, BARCODE       SEE COMP MAE         3       125242-1       CAP525ID X 1" VINYL       SEE COMP MAE         4       126825~1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAE         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAE         6       125483~1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAE         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAE	WP1	A11378-A050U	WIRE, 16 RED FAST X S X TERM	A 10
WP4       101031-1       .250 FASTON. AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON. AUTO INSERTABLE       D 4         WP6       A12125-3140K WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON. AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       LBL, BARCODE       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR	WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP4       101031-1       .250 FASTON. AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON. AUTO INSERTABLE       D 4         WP6       A12125-3140K WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON. AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       LBL, BARCODE       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR	WP3	· <u></u>		
WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       A12125-3140K       WIRE, 22 WHT 3/16X14 X FAST       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       L8L, BARCODE,       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR	WP4	·		
WP6         A12125-3140K         WIRE, 22 WHT 3/16X14 X FAST         J 8           WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP MAR           2         101016-1         L8L, BARCODE.         SEE COMP MAR           3         125242-1         CAP, .625ID X 1" VINYL         SEE COMP MAR           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP MAR           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP MAR           6         125483-1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR	WP5	101031-1		
WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP MAR           2         101016-1         LBL, BARCODE         SEE COMP MAR           3         125242-1         CAP625ID X 1" VINYL         SEE COMP MAR           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP MAR           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP MAR           6         125483-1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR	WP6	A12125-3140K		
Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP MAR           2         101016-1         L8L, BARCODE         SEE COMP MAR           3         125242-1         CAP625ID X 1" VINYL         SEE COMP MAR           4         126825-1         SILICONE. CLEAR 30Z SYRINGE         SEE COMP MAR           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP MAR           6         125483-1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP MAR           7         103180-1         BUMPER. 0.4" TALL BLK W/ADH         SEE COMP MAR           7         103180-1         BUMPER. 0.4" TALL BLK W/ADH         SEE COMP MAR	WP7			
1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP MAR         2       101016-1       L8L, BARCODE       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR	Z1			
2       101016-1       L8L, BARCODE. , .       SEE COMP MAR         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR		102138-9		SEE COMP MAP
3       125242-1       CAP625ID X 1" VINYL       SEE COMP MAR         4       126825-1       SILICONE. CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER. 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER. 0.4" TALL BLK W/ADH       SEE COMP MAR		·		
4       126825~1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP MAR         5       125482~1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483~1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180~1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180~1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR		· <del></del>		SEE COMP MAP
5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP MAR         6       125483~1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP MAR				SEE COMP MAP
6         125483~1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR				SEE COMP MAP
7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP MAR				SEE COMP MAP
7 103180-1 BUMPER, 0.4" TALL BLK W/ADH SEE COMP MAR		<del></del> -		SEE COMP MAP
				SEE COMP MAP
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For Reference Use Only

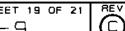
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JAW 11/4/98 DHAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48517 PHONE (219) 294-8888 DWG. NO. SHEET 19 OF 21 RE 102140-9

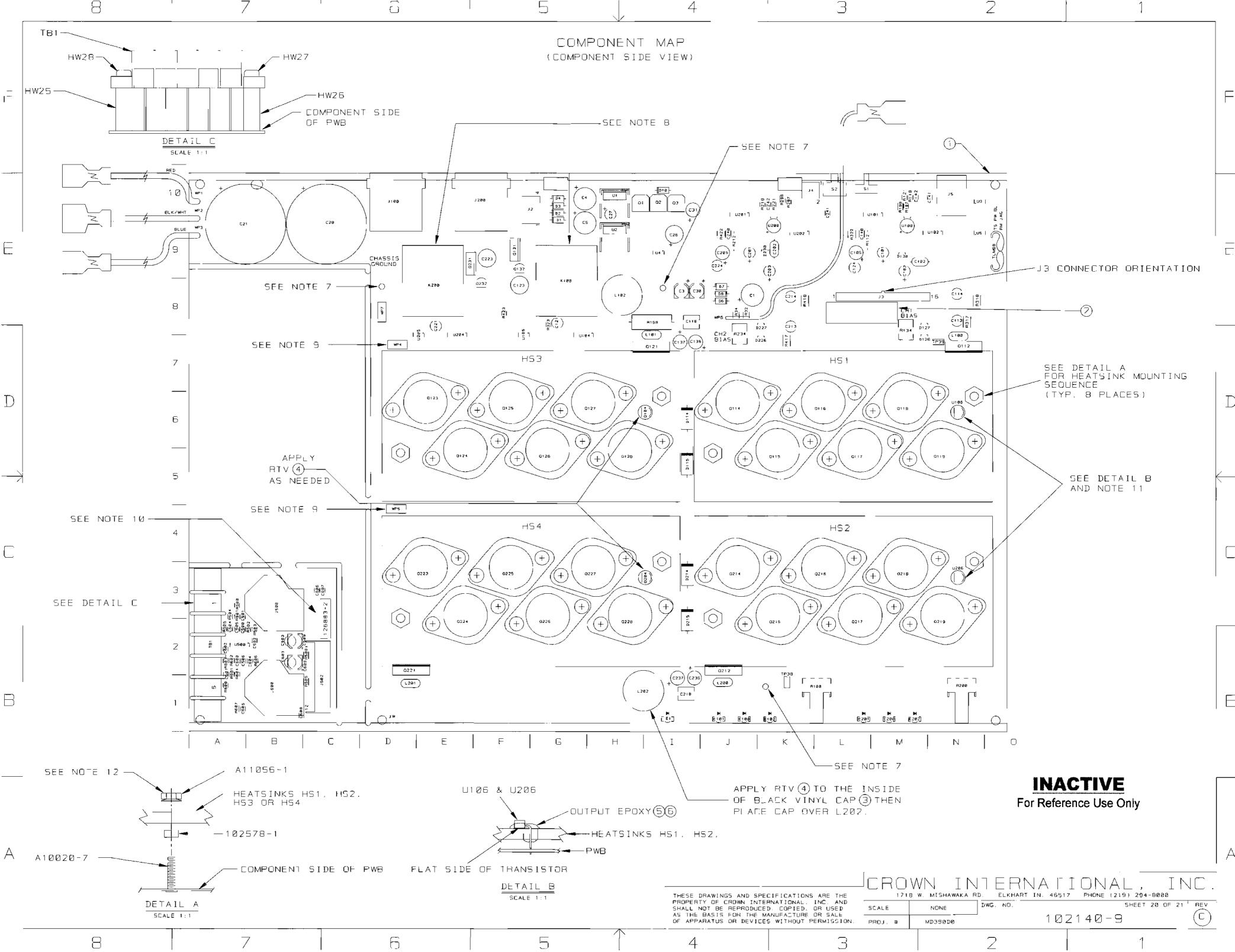


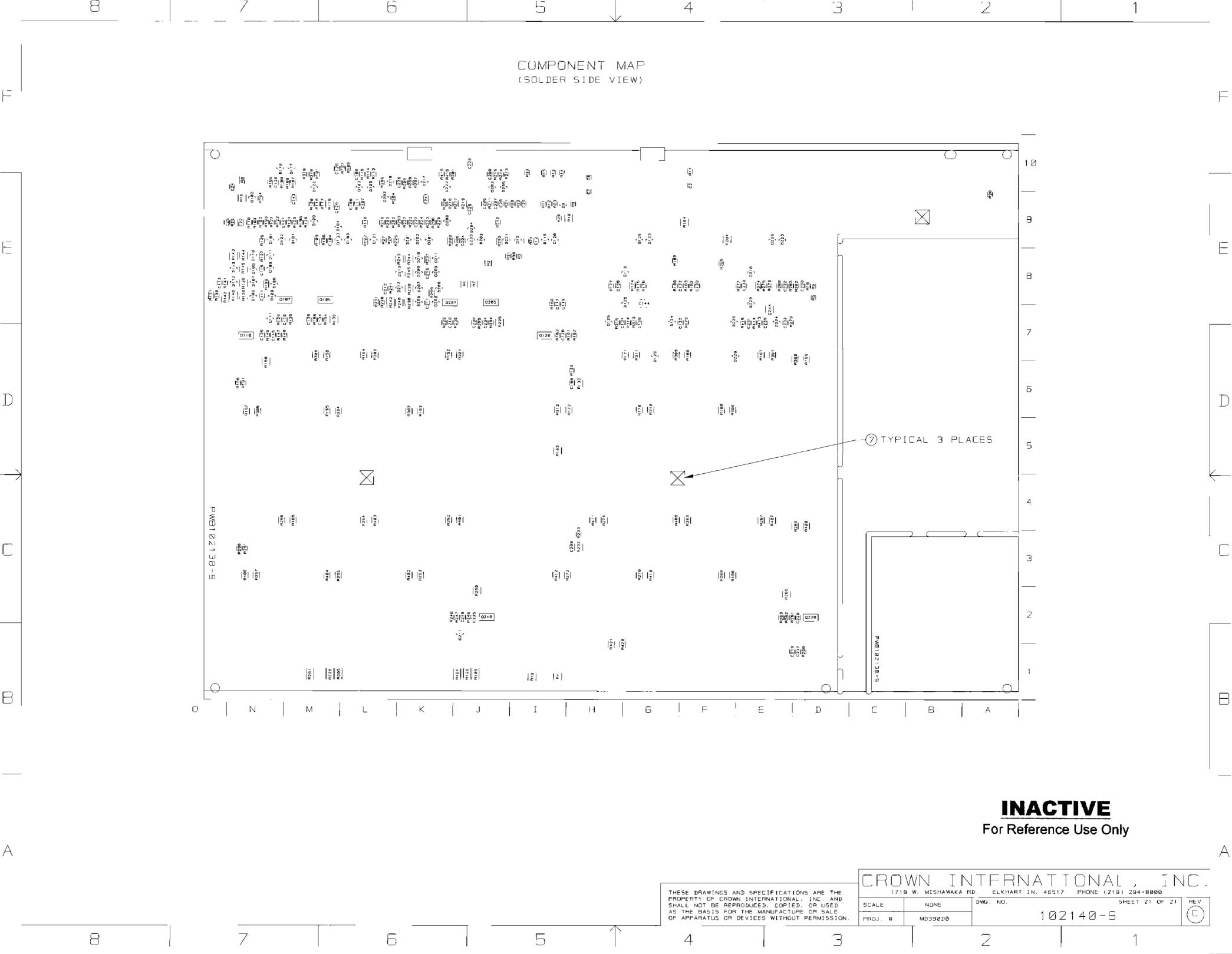
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# **Component Map**

for use with Main PWA 102140-9





E.C.	20NE	REV.	DESCRIPTION	DATE	eY	CHK	PPAC CM	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION.	<b>23-29-99</b>	KLW	Øw.	<b>\</b>	الأون	<b>W</b>
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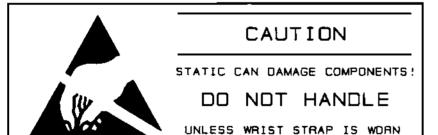
#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-618\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
  - . COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
    ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223
   TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPDXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    1NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
- TEMPERATURE TORQUE OF 13-15 INCH L65.
  13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP



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K		P	WA,	MAIN/	INPL	JT CE20	900	TOL.UNLESS SPEC X.XX = ± X.XXX = ± DRILLS = ±	8.020 8.019
		DRAWN	KLW	Ø3-29-99	APPI	ROVED BY:	DO NO	T SCALE PAIN	IT
	<u> </u>	CHECKED	Jaw	03-29-99	ME ()	¥ 3-30-99	SUPERSED	ES	
		SCALE .	//	ONE	EE 4/	1	E.C.		
		PAQJ #	МФ	390D0	PE 3	3-30-99		SHEET 1 OF 21	REV
		FILENAME: 182148-11_A_91.PC8			NEXT ASM:		102140-11   ( <i>1</i>		

PARTS LIST				
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION	
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,	
	-		HW15. HW16	
A10265-19121	19.1K Ø.25W 1% MF	2	R112.R212	
A10266-2R74	2.7 OHM 2W 5% CF	1	R158	
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218	
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,	
		<u> </u>	HW22, HW23, HW24	
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R105, R110, R201, R206.	
			R210, R316, R416	
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111,	
			R121,R176,R177,R182,R185,	
			R193, R196, R204, R211, R221,	
			R276, R277, R282, R285, R293,	
			R296, R313, R413, R500, R501,	
·	•		R502,R503,R504,R506,R600.	
		<u> </u>	R601,R602,R603,R604,R626	
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,	
		<u> </u>	R183, R186, R189, R223, R225,	
	<del>"-</del>		R279, R283, R286, R289	
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118, R218	
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239	
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	H21	
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237	
A11368-15831	158K 0.10W 1% CHIP 0805	В	R122,R124,R187,R188,R222,	
			R224, R287, R288	
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209	
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27	
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284	
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116.R191,R216.R291	
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280	
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203	
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126.R226	
A11368-51111	5.11K OHM 0.10W 1% CHIP 0905	6	R113.R175.R213.R275.R315.R415	
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290	
A11368-60432	604K OHM 0.125W 1% CHIP 1206	_	R174.R192,R274.R292	
A1136B-61911	6.19K 0.10W 1% CHIP 0805	2	R197,R297	
A11368-68121	68.1K Ø.1ØW 1% CHIP	3	R12, R115, R215	
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5	
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145,R245	
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18	
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17.R114.R214	
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278	
A11368-93111	9.31K Ø.1W 1% CHIP Ø805	1	R6	
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234	
A11369-120K2	12PF 50V 10% NPO 0805 T/A	6	C500,C501,C502,C600,C601,C602	
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107.C207	
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242	
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241	
	ATIVE			

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517

 DRAWN
 KLW
 Ø3-29-99
 DWG. NO.

 PROJ.
 MD39ØDØ
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PHONE (219) 294-8888 SHEET 2 OF 21 RE



PARTS LIST				
C. P. N.	DESCRIPTION	DTY	REFERENCE DESIGNATION	
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423	
A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33	
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247	
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422	
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8	
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244	
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,8161,R246,R261	
A11371-1501	15 OHM Ø.10W 5% CHIP	5	C606, C607, C609, R160, R260	
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263	
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232	
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2	
_		_		
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19	
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243	
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,	
			R414	
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235	
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418	
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262	
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142,R242	
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34	
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265	
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421	
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281	
A11371-6821	6.8K Ø.10W 5% CHIP Ø8Ø5	2	R127.R227	
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28.R133.R233	
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294	
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607	
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295	
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1	
A11379-C050U	WIRE, 18 BLU FAST X 5 X TERM	1	wP3	
A11427-103K2	Ø.01MF 50V 10% CHIP 0805	4	C109, C111, C209, C211	
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243	
A11427-104K2	0.1 MF 50V 10% 0805	33	C2,C6,C7,C12,C24,C25,C28,C29,	
			C115.C122.C126.C127.C128.	
			C129, C130, C131, C132, C133,	
		_	C139, C215, C222, C226, C227,	
			C228, C229, C230, C231, C232,	
			C233, C239, C505, C506, C605,	
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212	
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217	
A11427-472K2	4700PF 50V 10% X7R 0905	4	C116, C119, C216, C219	
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4. D6, D7, D10	
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201	
C 3549-0	DIODE ZENER, 10V, 1N52408	1	De	
C 3679-5	33UF 50V 20% VERT ELECT	1	C31	
C 4477-3	470 MF 35V VERT	2	C4.C5	

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517
DRAWN KLW Ø3-29-99 DWG. NO.

WD390D0

PRQJ.

RT. INDIANA 48517 PHONE (219) 294-8800 . NO. SHEET 3 OF 21 RE



	PARTS LIST				
Ç. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION		
C 5095-2	POS. 15 VOLT REG.	1	U1		
C 5096-0	NEG. 15 VOLT REG.	1	<b>⊔</b> 2		
C 5362-6	2.2 MF 50V VERT	1	C27		
C 6802-0	.47 MF 50V AX CERM	2	C102.C202		
C 7091-9	Ø.33 MF 50V CHIP 1206	3	C22, C140, C240		
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2		
C 7448-1	MMBT3904 CHIP NPN	-6	Q100,Q101,Q129,Q200,Q201,Q229		
C 8262-5	MA 90 BRION OL LAUD GBROEEDM	4	U4, U5, U105, U205		
C 8576-8	100 MF 35V 10% ELEC	1	C26		
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101,U201,U500		
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204		
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223		
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204		
C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,		
			D105, D106, D107, D108, D109,		
			D110, D111, D112, D113, D116.		
			D117, D118, D119, D120, D121,		
			D122, D123, D124, D125, D126,		
			D127, D128, D129, D130, D201,		
			D202, D203, D204, D205, D206.		
			D207. D208. D209. D210. D211,		
	-		D212, D213, D216, D217, D218,		
			D221, D222, D223, D224, D225,		
			D226. D227. D228. D229. D230		
C 9896-9	TEST POINT LOOP	2	TP38, TP39		
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X.U2X		
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211		
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224		
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205		
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215		
C10613~5	1K TOP ADJUST TRIMMER T/R	2	R134, R234		
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21		
H42902-9	ASM. THERMAL SENSE	2	U106, U206		
101016-1	LOL, BARCODE, , ,	1	2		
101031-1	.250 FASTON, AUTO INSERTABLE		WP4.WP5,WP7		
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4		
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2		
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5		
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1		
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235		
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604		
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238		
102465-1	.47UF 50V 20% RADIAL T/R	2	C1Ø1, C2Ø1		
102466-1	10UF 250V 20% RADIAL T/R	1	C1		
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603		
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214		
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102.L202		
102471-2	HDR, 12POS 2.5MM RT ANG KEYE		J502		
102472-3	HDR. 16POS . 100 CTR SGL ROW	+ +	J3		
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200		
1827/3 1	STEAROR, FIOLE PUB HURL		J. 100, J. 100		

For Reference Use Only

#### INC. INTERNATIONAL CROWN DRAWN KLW 03-29-99 DWG. NO. SHEET 4 OF 21 REV

PROJ. MD390D0



PARTS LIST				
C. P. N.	DESCRIPTION	אדם	REFERENCE DESIGNATION	
102475-1	BLOCK, 5 POS TERMINAL	1	TB1	
102476-1	LED, SMT R/A GREEN	3	E1, E101, E201	
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202	
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132,Q232	
102479-1	PWR MJD112 NPN DARLINGTON 10	3	01,02,03	
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233	
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q208	
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203	
102486-1	OPTO BJT NPN SOIC-8 CTR -100	1	uз	
102488-1	SPDT HORIZ SLIDE	1	S1	
102573-3	HS ASM. T2 ISOLATED CH1	1	H53	
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	HS4	
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1	
102576-3	HS ASM, T2 NON-ISOLATED CH2.	1	HS2	
102578-1	SPACER, 6X.125 AL BLK ANODIZ	В	HW1, HW2, HW3, HW4, HW5, HW6, HW7,	
102370 1	STANDERS SERVINGSTE		HWB	
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW28	
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100.R200	
102333	1 517 5K E117 21 5K1 12 WKK 115K12	<del></del>		
	_			
102723-2	OPTO CELL ON-500 OHM	2	U100.U200	
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7	
103191-1	0.47UF Z5U 1210 20% 50V	2	C144.C244	
103192-1	NPN 300V 500MA 50MHZ 50T-223	4		
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	Q107,Q110,Q207,Q210 Q105,Q120,Q205,Q220	
103199-1	Ø.4 OHM 1W 5% 2512 T/R	54	R1, R7, R152, R153, R154, R155,	
103135-1	8.4 GHW 1# 3% 2512 17K	- 27	R156,R157,R159,R167,R168,	
			R169,R170,R171,R172,R252,	
	-		R253, R254, R255, R256, R257,	
	-	1	R259.R267.R268.R269,R270,	
			R271, R272, R300, R301, R302,	
			R303, R304, R305, R306, R307.	
		-	R308, R309, R310, R311, R312, R400, R401, R402, R403, R404,	
	<del> </del>		R405,R406,R407,R408,R409,	
		<u> </u>	i	
102210-1	2 THE 180V BARTAL TVO		R410, R411, R412 C136, C137, C236, C237	
103210-1	2.2UF 160V RADIAL T/R	4		
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2	
103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	2	HW27, HW28	
125106-1	MACOD 8 AMP 400V TRIAC	2	Q131,Q231	
125242-1	CAP, .625ID X 1" VINYL	1_		
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5	
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6	
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C3Ø	
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200	
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4	
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600	
127442-1	PREP, CE HI-V WIRE	1	WP6	

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DRAWN	KLW	<b>03-</b> 29-99	DWG.
PBOJ	MD	зайра	

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517

PHONE (219) 294-8888 SHEET 5 OF 21 REV 102140-11



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
<b>C</b> 1	102466-1	10UF 250V 20% HADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
€3	125508-1	10UF 50VDC ELECTROLYTIC SMD	1 8
C4	C 4477~3	470 MF 35V VERT	G 10
Ċ5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	Ø.1 MF 50V 10% Ø805	I 9*
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	8 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2		J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	1 25508-1	10UF 50VDC ELECTROLYTIC SMD	8 1
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C1Ø1	102465-1	.47UF 50V 20% RADIAL T/R	ВМ
C102	C 6802-0	.47 MF 50V AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104		100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L S
C106		56PF 200V 10% NPO 0805	L 9*
C107		27PF 50V 10% NPO 0805 T/R	L 9*
C108		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0805	н 6*
C110		470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115		0.1 MF 50V 10% 0805	жв и
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	I 8
C119		4700PF 50V 10% X7R 0805	I 7*
C120		100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122		0.1 MF 50V 10% 0805	F 8*
C122	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F B
C124	C1Ø196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C128		0.1 MF 50V 10% 0805	M 9*
L123	A1174/-10482	6' 1 MI 764 16W 6060	IN 3.
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#### INC. CROWN INTERNATIONAL 1718 WEST MISHAWAKA ROAD ELKHARY, INDIANA 48517 PHONE (219) 294-8000

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KLW 23-29-99 DWG, NO. DRAWN MD390D0 PROJ.

SHEET 6 OF 21



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	н 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	н 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	Ø.1 MF 50V 10% 0805	F B*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135		100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	1.7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139		0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	Ø.33 MF 50V CHIP 1206	L 9
C141		470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 10
C143		Ø. Ø1MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
£201	102485-1	47UF 50V 20% RADIAL T/R	j g
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C2Ø3	102467-1	22MF 25V 20% RAD T/R	К 9
C204		100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C2Ø6		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212	'	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	КВ
C214	102450-1	47UF 10V 20% NP RAD T/R	К 8
C215	A11427-104K2	0.1 MF 50V 10% 0805	к 🛮 *
C216		4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1*
C218		0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220		100PF 200V 10% NPO 0805	D 2*
C221	C10198-1	2.2MF 50V 20% RAD T/R	E 8
C222		0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10198-1	2.2MF 50V 20% RAD T/R	J 9
C226		0.1 MF 50V 10% 0805	K 10*
C227		0.1 MF 50V 10% 0805	к 9*
C22B	-	Ø.1 MF 50V 10% Ø805	J 10*
C229	A11427-104K2		J 9*
C23Ø	A11427-104K2		E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232	+	0.1 MF 50V 10% 0805	Ë 7*
C233	<del></del>	0.1 MF 50V 10% 0805	D 8*
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#### INC. CROWN INTERNATIONAL 1719 WEST MISHAWAKA ROAD

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DRAWN LOB4 MD390D0

KLW 03-29-99 DWG. NO. PHONE (219) 294-8989 SHEET 7 OF 21 RE 102140-11



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/A	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	Q.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	Ø.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504		56PF 200V 10% NPD 0805	A 2
C505		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601		12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605		Ø.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	СЗ
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	ÇЗ
C698	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
DЗ	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J B
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER. 10V. 1N5240B	J 8
<b>D</b> 9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	Ī 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	N 9*
D103	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888 DRAWN KLW 03-29-99 DWG. NO. SHEET 8 OF 21 RE

MD390D0

PROJ.



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	16
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	15
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	мв
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	J 9*
D203	C 9283-0		J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
D207	C 9283-0		K 7*
-		DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D209 D210	C 9283-0 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
		DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D211 D212	C 9283-0 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
			K B*
D213	C 9283-0 C10422-1	DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 3A 400V 1N5404 AXIAL	I 3
	C10422-1		I 2
D215 D216	C 9283-0	DIODE, 3A 400V 1N5404 AXIAL   DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
	-		K 10*
D217	C 9283-0	DIODE 1N914/1N414B SOT-23 SMT	L 10*
D218	C 9283-0	DIODE 1N914/1N414B SOT-23 SMT	J 9*
D221	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 9*
D222	C 9283-8	DIODE. 1N914/1N4148 SOT-23 SMT	E 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	
D224	C 9283~0	DIODE. 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN KLW 03-29-99 DWG, NO. SHEET 9 OF 21 REV PROJ. MD390D0



PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477~1	LED, SMT R/A RED	J 1
E101	102476-1	LED. SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	192476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2.	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3		G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3 HW4	192578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
<del></del>	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	8 4
HWB	102578-1	SPACER, 6X.125 AL BLK ANODIZED	8 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	8-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11058-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	8 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW.6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
JЭ	102472-3	HDR, 16POS .100 CTR SGL ROW	ма
J 4	101571~1	HDR 2 POS .1 CTR MTA SHRD	L 10
J 5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON. 4 POLE PCB HORZ	F 10

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN KLW 03-29-99 DWG. NO. SHEET 10 OF 21 RE

MD390D0

PROJ.



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	В 3
J5Ø2	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
1600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL. 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	Ĭ 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 4700H 10% AXIAL	D 1
L202	102470-1		I 1
	<b>+</b>	INDUCTOR, 2.75UH 11A RADIAL	
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	16
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 25C5242	N 7
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0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
0121	103200-1	NPN 230V 15A 30MHZ 25C5242	I 7
4121	103200 1	11 11 238V 13A 38IMI12 23C3242	1 /
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0129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MACOD B AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER S8S 8V THRESH	F 9
0133	102480-1	FET. N-CH 25V 50MA SOT-23	M 9*
0200	C 744B-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q2 <b>0</b> 2	□ 9931-4	MMBT5087LT1 PNP XSISTOR SDT-23	L 9*
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For Reference Use Only

#### INC. CROWN INTERNATIONAL

PROJ.

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48517 PHONE (219) 294-8888 DWG, NO. SHEET 11 OF 21 RE

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KLW 03-29-99 DWG. NO. DRAWN MD390D0

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
Q2Ø3	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252~5	2N3904 40V NPN TRANSISTOR	13
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q2Ø7	103192-1	NPN 300V 500MA 50MHZ SCT-223	K 7*
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	€ 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	j 2*
0212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
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_			
0220	103193~1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	£ 9*
0231	125106-1	MACSD 8 AMP 400V TRIAC	É 9
Q232	102478-1	TRIAC DRIVER SBS BV THRESH	FB
0233	102480-1	FET, N-CH 25V 50MA SOT-23	# E L
R1	103199-1	Ø.4 ÖHM 1W 5% 2512 T/R	1 8 ×
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I B*
R4	A11371-3313_	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811		D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8 *
R7	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R <u>9</u>		10K 1/10W 1% CHIP 0805	H 9*
R10		20K 0.25W 1% CHIP 1210	н 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	· · · · · · · · · · · · · · · · · · ·	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 48517
 PHONE 1219 294-8888

 DRAWN
 KLW 03-26-99
 DWG. NO.
 SHEET 12 0F 21
 REV
 102140-11 PACJ. мрзэара



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A1136B-39231	392K 0.10W 1% CHIP 0805	1 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11388-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102		392K 0.10W 1% CHIP 0805	N 9*
R103		499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	880 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A1@265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	м 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	м 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	м в*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	м 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	м 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	880 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.8*
F131		OPEN	0 8*
R132	A11371-2223	2.2K Ø.25W 5% CHIP 1210	H 6*

For Reference Use Only

#### INC. CROWN INTERNATIONAL

PROJ.

MD390D0

 1718 WEST MISHAWAKA ROAD
 ELKHART. INDIANA 48517
 PHONE (219) 294-8888

 DRAWN
 KLW
 Ø3-29-99
 DWG. NO.
 SHEET 13 OF 21
 RE



		PARTS LIST	
REF DES	C, P. N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N B*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N B*
R14Ø	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N 8*
R141	A11371-B211	820 OHM 0.10W 5% CHIP	O 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N B*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N B*
R1 46	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
F147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R1 4B	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*
H153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199~1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM Ø.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R17Ø	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
8171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021		G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921		N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180		392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 8*
R184	· · · · · · · · · · · · · · · · · · ·	20K 0.25W 1% CHIP 1210	F 9*
· · · · · · · · · · · · · · · · · · ·	N11300-20023	ZUN U. ZUM IA CHIF IZIU	<u> </u>
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PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8866
DRAWN KLW 83-29-99 DWG. NO. SHEET 14 DF 21 RE 102140-11



		PARTS LIST	·
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
A185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
H187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
F188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
H191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	М 10
R198		OPEN	M 10
R199	A11371-0R02	Ø.Ø OHM JUMPER CHIP 1206	N B*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L. 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	*9 ا
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K Ø.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371~3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220		90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K 0.10W 1% CHIP 0805	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226		49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	880 OHM 0.50W 5% CHIP	м 1*
R229	A1 1371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н 3*
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PROJ. MD39@D@

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE 1219) 294-8888
DRAWN KLW 83-28-89 DWG, NO. SHEET 15 OF 21 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	К 8*
R238	A <u>11371-1213</u>	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 0*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	Ø.4 DHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	К 3*
R254	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	м 3*
R256	103199-1	Ø. 4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 DHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 0*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*

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KLW 03-29-99 DWG. NO. DRAWN PROJ. **WD390D0** 

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517

PHONE (219) 294-8888 SHEET 16 OF 21 RE 102140-11



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 19*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM Ø.10W 1% CHIP 0805	N 3*
F1292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 CHM 0.10W 5% CHIP	J 7*
H295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
F1297	A11388-61911	6.19K 0.10W 1% CHIP 0805	K 10
A298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	к а*
H300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
F301	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 6*
F1302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R3Ø3	103199-1	0.4 DHM 1W 5% 2512 T/R	L 6*
R304	103199-1	Ø.4 DHM 1W 5% 2512 T/R	M 5*
A305	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R3Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 DHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10#
R317	A11371-3934	39K DHM 0.50W 5% CHIP 1210	N B
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322		100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
8403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	*E M
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	*E N
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
8408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 DHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (218) 294-8008

DRAWN KLW 03-29-99 DWG. NO. SHEET 17 OF 21 RE-MD390D0

PROJ.



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R41B	A11371-3934	39K OHM 0.50W 5% CHIP 1210	К 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM (W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	Ø.Ø OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	АЭ
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502		10K 1/10W 1% CHIP 0805	B 2
R503		10K 1/10W 1% CHIP 0805	B 2
R504		10K 1/10W 1% CHIP 0805	A 2
R506		10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601		10K 1/10W 1% CHIP 0805	A 1
R602		10K 1/10W 1% CHIP 0805	A 2
R603		10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R6Ø6		10K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R628		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
Ц1 X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
⊔2	C 5096-0	NEG. 15 VOLT REG.	нв
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н 9
N3	102486-1	OPTO BJT NPN SOIC-8 CTR -100%	N 10
<u> </u>	C 8262-5	MC3307BD DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OF AMP	ВИ
U100	102723-2	OPTO CELL ON-500 DHM	м 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D 50-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U126	H42902-9	ASM. THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON-500 OHM	К 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D 50-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
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KLW 23-29-99 DWG, NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48517 PHONE (219) 294-8000 9 DWG, NO. SHEET 18 OF 21 RE 102140-11

PARTS LIST    Name	
U205         C 8282-5         MC33078D DUAL LO NOISE OP AMP         E 7           U206         H42902-9         ASM. THERMAL SENSE         N 3           U500         C 9012-3         MC33079D QUAD LO NOISE OP AMP         A 2           WP1         A11378-A050U WIRE, 16 RED FAST X 5 X TERM         A 10           WP2         103331-N050R WIRE, 16 BLK/WHT TAB X 5 X T         A 9           WP3         A11379-C050U WIRE, 16 BLU FAST X 5 X TERM         A 9           WP4         101031-1         .250 FASTON, AUTO INSERTABLE         D 7           WP5         101031-1         .250 FASTON, AUTO INSERTABLE         D 4           WP6         127442-1         PREP. CE HI-V WIRE         J 8           WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE,         SEE COMP           3         125242-1         CAP, 625ID X 1" VINYL         SEE COMP           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP           6	
U206       H42902-9       ASM. THERMAL SENSE       N 3         U500       C 9012-3       MC33079D QUAD LO NOISE OP AMP       A 2         WP1       A11378-A050U WIRE, 16 RED FAST X 5 X TERM       A 10         WP2       103331-N050R WIRE, 16 BLK/WHT TAB X 5 X T       A 9         WP3       A11379-C050U WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       127442-1       PREP, CE HI-V WIRE       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP         2       101016-1       LBL, BARCODE, ,       SEE COMP         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP         4       125825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125493-1       ACTIVATOR LOCTITE "DUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
USØØ	
WP1       A11378-A050U       WIRE, 16 RED FAST X 5 X TERM       A 10         WP2       103331-N050R       WIRE, 16 BLK/WHT TAB X 5 X T       A 9         WP3       A11379-C050U       WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       127442-1       PREP, CE HI-V WIRE       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP         2       101016-1       LBL, BARCODE, , , SEE COMP         3       125242-1       CAP, 625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
WP2       103331-N050R       WIRE, 16 BLK/WHT TAB X 5 X T       A 9         WP3       A11379-C050U       WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       127442-1       PREP, CE HI-V WIRE       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP         2       101016-1       LBL, BARCODE, . ,       SEE COMP         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125493-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP         7       103180-1       BUMPER, Ø.4" TALL BLK W/ADH       SEE COMP	
WP3       A11379-C050U       WIRE, 16 BLU FAST X 5 X TERM       A 9         WP4       101031-1       .250 FASTON, AUTO INSERTABLE       D 7         WP5       101031-1       .250 FASTON, AUTO INSERTABLE       D 4         WP6       127442-1       PREP, CE HI-V WIRE       J 8         WP7       101031-1       .250 FASTON, AUTO INSERTABLE       D 8         Z1       OPEN       E 9         1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP         2       101016-1       LBL, BARCODE, . ,       SEE COMP         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125493-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP         7       103180-1       BUMPER, Ø.4" TALL BLK W/ADH       SEE COMP	
WP4         101031-1         .250 FASTON, AUTO INSERTABLE         D 7           WP5         101031-1         .250 FASTON, AUTO INSERTABLE         D 4           WP6         127442-1         PREP. CE HI-V WIRE         J 8           WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE, , , SEE COMP         SEE COMP           3         125242-1         CAP, .625ID X 1" VINYL         SEE COMP           4         125825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP           6         125493-1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP           7         103180-1         BUMPER, Ø.4" TALL BLK W/ADH         SEE COMP	
WP5         101031-1         .250 FASTON, AUTO INSERTABLE         D 4           WP6         127442-1         PREP, CE HI-V WIRE         J 8           WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE, , ,         SEE COMP           3         125242-1         CAP, .625ID X 1" VINYL         SEE COMP           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP           6         125483-1         ACTIVATOR LOCTITE "OUTPUT"         SEE COMP           7         103180-1         BUMPER, Ø.4" TALL BLK W/ADH         SEE COMP           7         103180-1         BUMPER, Ø.4" TALL BLK W/ADH         SEE COMP	
WP6         127442-1         PREP, CE HI-V WIRE         J 8           WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE, . ,         SEE COMP           3         125242-1         CAP, .625ID X 1" VINYL         SEE COMP           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP           6         125483-1         ACTIVATOR LOCTITE "DUTPUT"         SEE COMP           7         103180-1         BUMPER, Ø.4" TALL BLK W/ADH         SEE COMP           7         103180-1         BUMPER, Ø.4" TALL BLK W/ADH         SEE COMP	
WP7         101031-1         .250 FASTON, AUTO INSERTABLE         D 8           Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE, , SEE COMP           3         125242-1         CAP, 625ID X 1" VINYL SEE COMP           4         126825-1         SILICONE, CLEAR 30Z SYRINGE SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT SEE COMP           6         125483-1         ACTIVATOR LOCTITE "DUTPUT" SEE COMP           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP	
Z1         OPEN         E 9           1         102138-9         PWB, CE1000/CE2000 MAIN/INPU         SEE COMP           2         101016-1         LBL, BARCODE, , SEE COMP           3         125242-1         CAP, 625ID X 1" VINYL         SEE COMP           4         126825-1         SILICONE, CLEAR 30Z SYRINGE         SEE COMP           5         125482-1         ADHESIVE LOCTITE 384 OUTPUT         SEE COMP           6         125493-1         ACTIVATOR LOCTITE "DUTPUT"         SEE COMP           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP           7         103180-1         BUMPER, 0.4" TALL BLK W/ADH         SEE COMP	
1       102138-9       PWB, CE1000/CE2000 MAIN/INPU       SEE COMP         2       101016-1       LBL, BARCODE, . ,       SEE COMP         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "DUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
2       101016-1       LBL, BARCODE, . ,       SEE COMP         3       125242-1       CAP, .625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "DUTPUT"       SEE COMP         7       103180-1       BUMPER, Ø.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, Ø.4" TALL BLK W/ADH       SEE COMP	MAP
3       125242-1       CAP, 625ID X 1" VINYL       SEE COMP         4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "DUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
4       126825-1       SILICONE, CLEAR 30Z SYRINGE       SEE COMP         5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
5       125482-1       ADHESIVE LOCTITE 384 OUTPUT       SEE COMP         6       125483-1       ACTIVATOR LOCTITE "OUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
6       125483-1       ACTIVATOR LOCTITE "DUTPUT"       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP         7       103180-1       BUMPER, 0.4" TALL BLK W/ADH       SEE COMP	
7 103180-1 BUMPER, 0.4" TALL BLK W/ADH SEE COMP 7 103180-1 BUMPER, 0.4" TALL BLK W/ADH SEE COMP	
7 103180-1 BUMPER, 0.4" TALL BLK W/ADH SEE COMP	
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For Reference Use Only

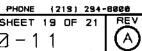
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DRAWN KLW 03-29-99 DWG. NO.
PROJ. MD390D0

1718 WEST MISHAWAKA RGAD ELKHART, INDIANA 48517 PHONE (219) 294

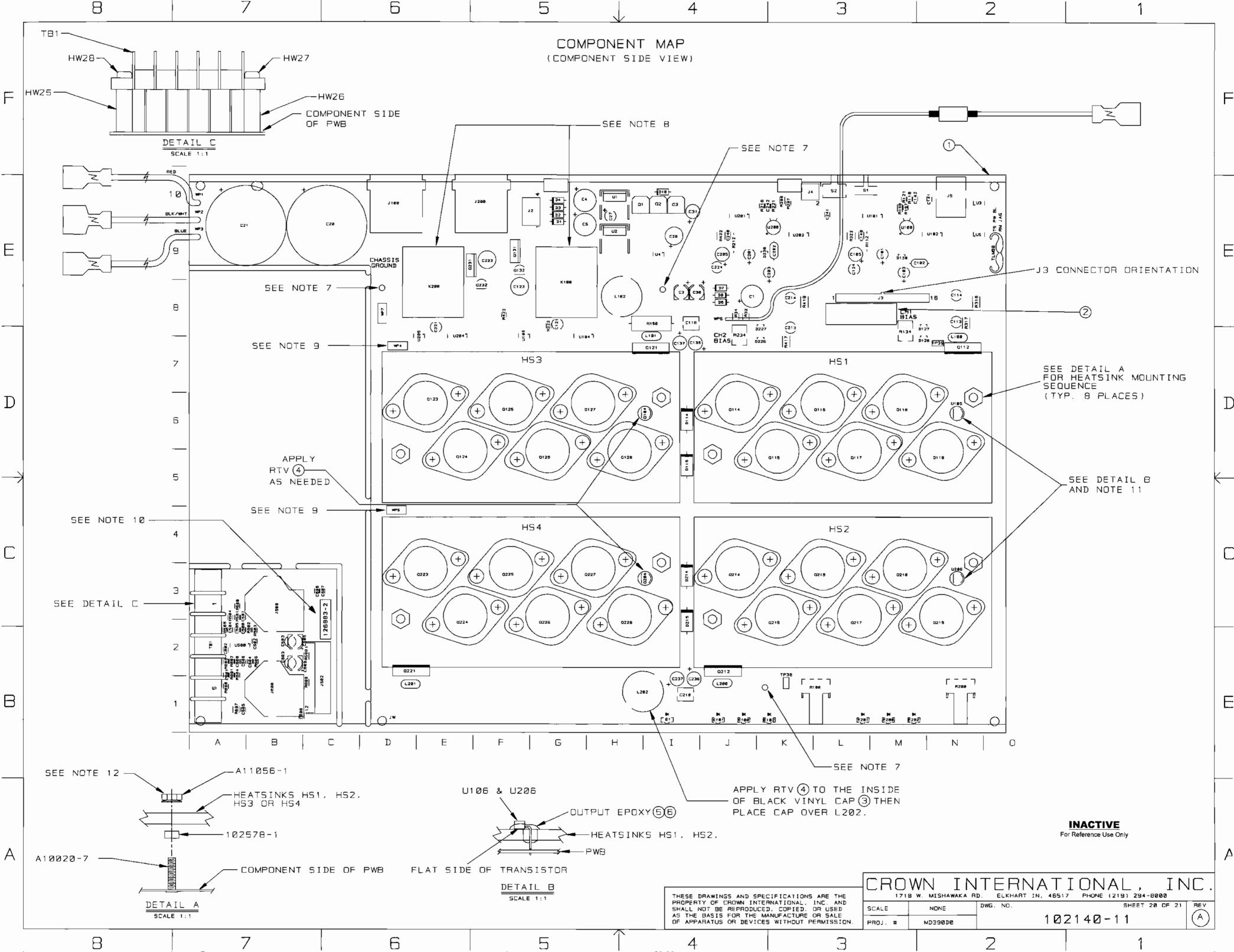
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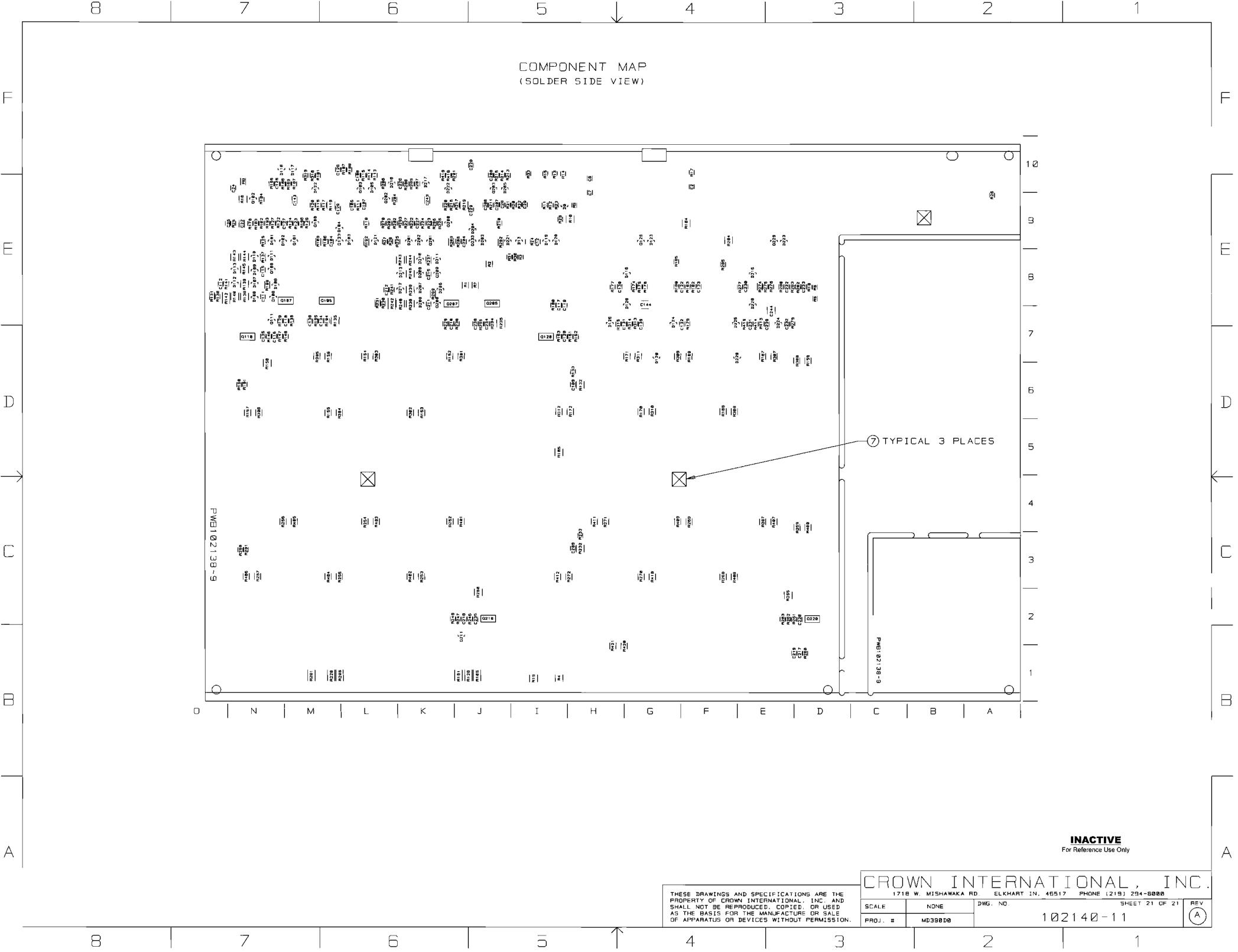




# **Component Map**

for use with Main PWA 102140-11





E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY		7771		
	2011	142.7.	#E36H11 1 \$ 6H	DRIL		CHK	ME	EE	PE
		A	INITIAL RELEASE	09/03/97	DWW	TLM		P₩	TS
		В	RENAMED HW25 & HW28 TO HW1 & HW2. REMOVED R507 & C507. C507 & C507 WERE C 6075-1. NOTE 2 WAS 102008-1. NOTE 3 WAS 102008-1.	10/20/97	TLM	K₩			TS
		С	NOTE 2 WAS 182588-2, NOTE 3 WAS 182689-2. J581 WAS 182471-1.	10/20/97	TLM	KW			тs
		D	NOTE 2 WAS 102688-3. NOTE 3 WAS 102689-3. A11371-8205 WAS A11371-8201, 125385-1 WAS 102474-1, 102438-560K2 WAS 102483-560K2, 102688-4 WAS 102688-3, 102471-2 WAS 125426-1. ADDED 102892-1.	11-18-97	KLW	ΤĿΜ			ts
99EØ693		Ë	NOTE_3 WAS 102689-4.	Ø2~13~98	PC	Kw			18

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET: IPC-A-610\_ CLASS 2

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102567.
- 2. PWB PART NUMBER 102688-4.
- 3. PWA PART NUMBER 102689-5.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. THE CROWN PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE PRINTED CIRCUIT BOARD AND SHALL BE PERMANENT.



	PRINTS	. <u></u> .	ROV Mishawa		• •	— .	RNAT	IONA	L INE.	886
	K		₽ <b>W</b> A	, INPL	JT	CE	1000		TOL. UNLESS SPECIF X, XX = ± B, X. XXX = ± B, DRILLS = ± 0.	828 818
		DRAWN	DWW	09/03/97	AF	PRO	VED BY:	DO NE	T SCALE PRINT	
		CHECKED	TLM	09/09/97	ME			SUPERSED	E5	
		SCALE		IONE	EE	PW	09/ <b>09/</b> 97	E.C.N.		
THESE DRAWINGS AND SPECIFICATIONS ARE PROPERTY OF CROWN INTERNATIONAL INC.	ANĎ	PROJ #	N	MD390D0	PE	TS	09/09/97	DWG. NO.	SHEET 1 GF 4	HEV
SHALL NOT BE REPRODUCED, COPIED, OR US AS THE BASIS FOR THE MANUFACTURE OR SA OF APPARATUS OR DÉVICES WITHOUT PERMIS	.E	NEXT ASS	EMBLY					1 🛭	2689	(E)

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	В	R500.R501,R502.R503,
			R600, R601, R602, R603
A11368-12121	12.1 KOHM .1W 1% CHIP 0805	2	R504, R604
A11368-20021	20. KOHM .1W 1% CHIP 0805	2	R506, R606
A1136B-30921	30.9 KOHM .1W 1% CHIP 0805	2	R505, R605
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500.C501.C502.C600.C601.C60
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
A11427-104K2	0.1UF 50V 1% CHIP 0805	6	C505,C506,C605,C606,C607,C60
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504, C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503.C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J501
102475-1	BLOCK, SPOS., TERMINAL	1	TB1
10/2487-1	DPDT VERT. SLIDE 12MM SHAFT	1	5500
102579-1	STAND, BROACHED 6-32 X .75	2	HW1 , HW2
102688-4	PWB, INPUT CE1000/CE2000	1	1
102882-1	6-32XØ.5 SEM PAN HD TORX BZ	2	HW3.HW4
125365-1	1/4" TRS/XLR COMBO PCB VERT	2	J500.J600
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	1718 WEST	MISHAWA	KA ROAD 1	ELKHART. INDIANA	46517 PHONE	(219) 294-	-9000
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF CROWN INTERNATIONAL, INC. AND	DHAWN	DWW	09/03/97	DWG. NO	SHE	ET 2 OF 4	REV
SHALL NOT BE REPRODUCED. COPIED. OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE				1 1 1 1 2	F Q O		(E)
OF APPARATUS OR DEVICES WITHOUT PERMISSION.	PROJ.	M	D390D0	1 1 2 2			- 【上ノ

		PARTS LIST	
REF DES	5 C.P.N.	DESCRIPTION	MAP LOC.
1	102688-4	PWB. INPUT CE1000/CE2000	
2500		12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-12ØK2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2
<u>C5</u> Ø5	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C5 <b>0</b> 6	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C6Ø4	102438-560K2	56PF 50V 10% NPO 0805	B 2
C6 <b>05</b>	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C606	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C507	A11427-104K2	0.1UF 50V 1% CHIP 0805	
C608	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 1
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	——————————————————————————————————————
HW3	102882-1	6-32XØ,5 SEM PAN HD TORX BZ	A 3
HW4	102882-1	6-32XØ,5 SEM PAN HD TORX BZ	C 3
J500	125365-1	CONN., 1/4" XLR, PCB VERT.	B 2
	+	HDR. 12POS. 2.5MM RT ANG KEYED	
J501	102471-2		A 1
7 <u>600</u>	125365-1	CONN., 1/4" XLR, PCB VERT.	A 2
R5 <u>00</u>	A11368-10021	10. KOHM .1W 1% CHIP 0805	<u>C 2</u>
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-12121	12.1 KOHM .1W 1% CHIP 0805	<u> </u>
P505	A11368-30921	30.9 KOHM .1W 1% CHIP 0805	B 2
R506	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
<u>R601</u>	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	_	10. KOHM .1W 1% CHIP 0805	<b>B</b> 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	₽ 2
R604	A11368-12121		<u>A 2</u>
R605_	A11368+30921	30.9 KOHM .1W 1% CHIP 0805	A 2
R606	A11368-20021	20. KOHM .1W 1% CHIP 0805	<u> </u>
R6 <b>0</b> 7	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
S500	102487-1	DPDT VERT, SLIDE 12MM SHAFT	B 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	A 3
U5 <b>00</b>	C 9012-3	OP AMP. QUAD MC33079D	B 2
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CROWN	INTE	RNATIO	NAL	INC.
710 WEST MISHAWAYA DOM	T CIPMANT	INDIANA 46517	PHONE	17101 704-988

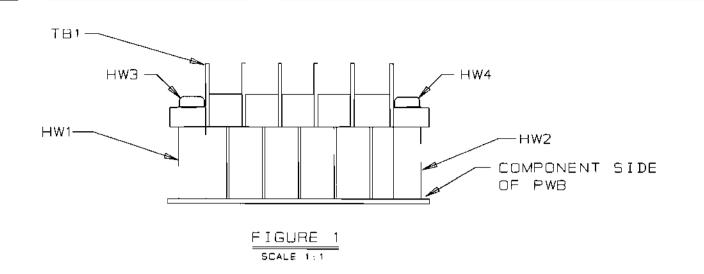
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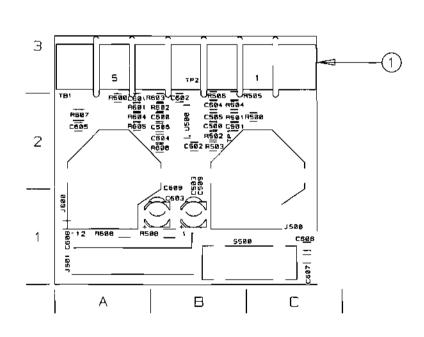
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SHEET 3 OF 4 102689





# COMPONENT MAP (COMPONENT SIDE VIEW)



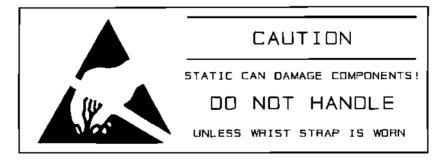
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1718 WEST		09/03/97	DWG.	 ANA 46	517	PHONE SHEET	(219) 4 O		HE V
PROJ.		D390D0		10	26	89			(E)

	7015		BEOGRAPHY ON		57	Α	PPRO	)VAL	.5
E.C.N.	ZONE	HEY.	DESCRIPTION	DATÉ	BY	CHK	ME	EE	PΕ
		A	INITIAL RELEASE	09/03/97	DWW	TLM		₽₩	15
		₽	RENAMED HW25 & HW28 TO HW1 & HW2. REMOVED R507 & C507. C503 & C603 WERE C 6078-1. NOTE 2 WAS 18268-1. NOTE 3 WAS 18268-1.	10/20/97	TLM	KW			TS
		C	NOTE 2 WAS 182888-2. NOTE 3 WAS 182898-2. J501 WAS 182471-1.	10/20/97	TLM	κw			TS
		D	NOTE 2 WAS 102688-3. NOTE 3 WAS 102690-3. A11371-8205 WAS A11371-8201, 125365-1 WAS 102474-1, 102438-560K2 WAS 102483-560K2, 102688-4 WAS 102688-3. 102471-2 WAS 125426-1, ADDED 102882-1.	11~18-97	KLW	TLM			TE
98EØØ84		Ε	NOTE 3 WAS 102690-4.	02-13-98	PC	Vw			X.

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET: IPC-A-610\_ CLASS 2

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102568.
- 2. PWB PART NUMBER 102688-4.
- 3. PWA PART NUMBER 102690-5.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. THE CROWN PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE PRINTED CIRCUIT BOARD AND SHALL BE PERMANENT.



	PRINTS		R O V	·	٠.	— :	RNAT	IONA	L INC	,
	K		PWA	, INPL	JΤ	CE	2000		TOL.UNLESS 5PEC	0.020 0.010
		DRAWN	DWW	09/03/97	AF	PRO	VED BY:	סא סם	T SCALE PRIN	<b>1</b> 7
		CHECKED	TLM	09/09/97	ΜE			SUPERSEDI	ES	
		SCALE	-	JONE	EE	۶w	09/09/97	E.C.N.		
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SHALL NOT BE REPRODUCED, COPIED, OR US AS THE BASIS FOR THE MANUFACTURE OR SI OF APPARATUS OR DEVICES WITHOUT PERMIS!	LE	NEXT ASS	EMBLY					10:	2690	(E)

	PARTS LIS	T	
C.P.N	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	10	R500,R501,R502,R503,R504.
			R600, R601, R602, R603, R604
A11368-20021	20. KOHM .1W 1% CHIP 0805	4	R505,R506,R605,R606
A11369-120K2	12PF 50V <b>10%</b> NPO 0805 T/R	6	C500.C501.C502.C600,C601.C60
A113 <b>71</b> -B2 <b>05</b>	82 OHM 1W 5% SMD 2512	1	A607
A11427-104K2	0.1UF 50V 1% CHIP 0805	6	C505.C506.C605.C606.C607.C608
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504, C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503.C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J5Ø1
102475-1	BLOCK, SPOS,, TERMINAL	1	TB1
102487-1	DPDT VERT. SLIDE 12MM SHAFT	1	S500
102579-1	STAND, BROACHED 6-32 X .75	2	HW1.HW2
102688-4	PW8, INPUT CE1000/CE2000	1	1
102882-1	6-32XØ.5 SEM PAN HD TORX BZ	2	HW3, HW4
125365-1	CONN., 1/4" XLR, PCB VERT	2	J500.J600
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ELKHART, INDIANA 46517

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DRAWN DWW 09/03/97 DWG. NO
PROJ. MD39000 1

1718 WEST MISHAWAKA ROAD

102690

PHONE (219) 294-8000 5HEET 2 OF 4 REV

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1	102688-4	PWB, INPUT CE1000/CE2000	
C500		12PF 50V 10% NPO 0805 T/R	B 2
C5Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	8 2
C5Ø2	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C5Ø3	102467-1	ZZUF Z5V Z0% RADIAL T/R	B 1
C5Ø4	102438-560K2	56PF 50V 10% NPO 0805	B 2
C5Ø5	A11427-104K2	0.1UF 50V 1% CHIP 0805	8 2
C5Ø6	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C600	A11369-120K2		B 2
C6Ø1	A11369-120K2		A 2
C602	A11369-120K2		B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-550K2	56PF 50V 10% NPO 0805	B 2
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C606	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C6Ø7	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C6Ø8	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 1
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	∁ 3
HW3	102882-1	6-32XØ.5 SEM PAN HD TORX BZ	A 3
HW4	1 2 2 8 8 2 - 1	6-32XØ.5 5EM PAN HD TORX BZ	C 3
J500	125365-1	1/4" TRS/XLR COMBO PCB VERT	B 2
J501	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
1600	125365-1	1/4" TRS/XLR COMBO PCB VERT	A 2
R500	A11368-10021	10. KOHM .1W 1% CHIP 0805	С 2
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R505	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R506	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R6Ø1	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602		10. KOHM .1W 1% CHIP 0805	B 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R605	A11368-20021	20. KOHM .1W 1% CHIP 0805	A 2
R606	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R607	A11366-20021	82 OHM 1W 5% SMD 2512	A 2
5500	102487-1	DPDT VERT. SLIDE 12MM SHAFT	B 1
TB1	102467-1	BLOCK, SPOS., TERMINAL	A 3
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2
. บวยช	L 3012-3	OF AME, QUAD MC33873D	
			-

	ROV	VN :	INTE	RNA	TIC	NAL	ΙN	$\Box$ .
1719 WEST	MISHAWA	KA ROAD	ELKHAR	T, INDIANA	46517	PHONE		
DRAWN	DWW	09/03/	g7 DWG.	NO.		5HEET	3 OF	4 REV

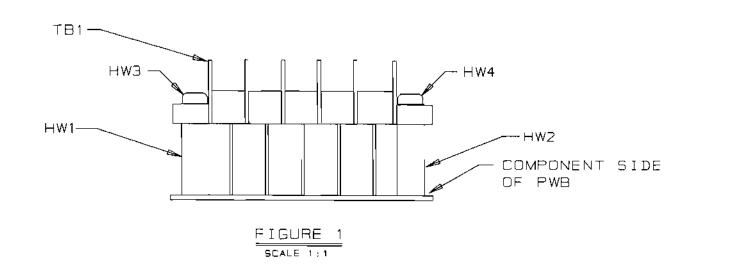
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DRAWN PROJ.

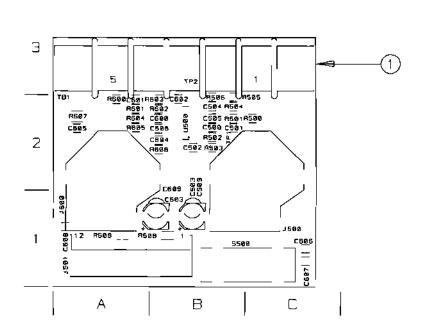
DWW 09/03/97 DWG. NO.

MD390D0 1 2 5 9 0





# COMPONENT SIDE VIEW)



	CF	$R \square W$	'N IN	1 T E	RNA	ΤΙΟ	NAL	ΙŅ	10	
┪	1718 WEST M	ISHAWAK	A ROAD 6	LKHART	. INDIANA	46517	PHONE	(219)	294-	8999
	DRAWN	DWW	09/03/97	DWG.	NO.		SHEET	4 OF	4	FIE V

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РВОЈ. МДЗВИДИ 102690

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E.C.N.	ZONE	HEV.	DESCRIPTION	<u> </u>	DATE	BY	CHK	ME	EE	PΕ
		Α	INITIAL RELEASE FOR PRODUCTION (LEVEL I)	12,	/02/98	JAW	TLM			τş
9850026		8	C608 WAS A11427-104K2. R605.R609 WERE A11371-1501. HW3,HW4 WERE 102882-1. ADDED NOTE 5.	12.	/02/98	WAL	žim		(	N
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UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET: IPC-A-610\_ CLASS 2

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 127014.
- 2. PWB PART NUMBER 127004-1.
- 3. ALL LEADS SHALL BE TRIMMED TO 0.083" OR LESS.
- 4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 5. SWAGE FIT HW1 & HW2 INTO PCB.



### INACTIVE

For Reference Use Only Document Has Been Replaced with a Newer Version

		CI	ROW	11 NV	۱Τ	EF	TAME	IONA	LINE	` .
	PRINTS	1718 WEST	MISHAWA	KA ROAD (	ELKH.	ART.	INDIANA 465	512 PH	ONE (219) 294	-8688
	К		PWA	, CE S	6T/	ND	ARD I		TOL. UNLESS SPEC X.XX = 1 X.XXX = 1	0.020
									DRILLS - ±	
		NWARC	WAL	12/02/98	AF	PR0	VED BY:	סא סמ	T SCALE PRIN	VΤ
		CHECKED	TLM	12/04/98	ME			SUPERSED	ES	
		SCALE	N	IONE	EE			E.C.N.		
THESE DRAWINGS AND SPECIFICATIONS ARE PROPERTY OF CROWN INTERNATIONAL. INC.	AND	PROJ #	~	D390D0	PË	۲S	12/04/98	DWG. NO.	SHEET 1 OF 4	
SHALL NOT BE REPRODUCED. COPIED. OR US AS THE BASIS FOR THE MANUFACTURE OR S OF APPARATUS OR DEVICES WITHOUT PERMIS:	ΞĒ I	NEXT ASS	EMBL.Y					1268	383-2	$\lfloor (B) \rfloor$

C.P.N. DESCRIPTION		PARTS LIS	Τ	
R506, R600, R601, R602, R603, R604, R606  A11369-120K2 12PF 50V 10% NPO 0805 T/R 6 C500, C501, C502, C600, C601, C6  A11371-2R71 2.7 OHM 0.10W 5% CHIP 3 C608, R605, R609  A11371-8205 82 OHM 1W 5% SMD 2512 1 R607  A11427-104K2 0.1UF 50V 1% CHIP 0805 3 C505, C506, C605  C 9012-3 OP AMP, QUAD MC33079D 1 U500  102438-560K2 56PF 50V 10% NPO 0805 2 C504, C604  102467-1 22UF 25V 20% RADIAL T/R 2 C503, C603  102471-2 HDR, 12POS, 2.5MM RT ANG KEY 1 J502  102475-1 BLOCK, 5POS, TERMINAL 1 TB1  102579-1 STAND, BROACHED 6-32 X .75 2 HW1, HW2  103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3, HW4  126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500, J600	C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
R604,R606  A11369-120K2 12PF 50V 10% NPO 0805 T/R 6 C500.C501.C502.C600.C601.C6  A11371-2R71 2.7 OHM 0.10W 5% CHIP 3 C608.R609.R605.R609  A11371-8205 82 OHM 1W 5% SMD 2512 1 R607  A11427-104K2 0.1UF 50V 1% CHIP 0805 3 C505.C506.C605  C 9012-3 OP AMP. QUAD MC33079D 1 U500  102438-560K2 56PF 50V 10% NPO 0805 2 C504.C604  102467-1 22UF 25V 20% RADIAL T/R 2 C503.C603  102471-2 HDR. 12POS. 2.5MM RT ANG KEY 1 J502  102475-1 BLOCK, 5POS., TERMINAL 1 T81  102579-1 STAND. BROACHED 6-32 X .75 2 HW1.HW2  103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3.HW4  126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600	A11368-10021	10. KOHM .1W 1% CHIP 0805	12	R500,R501.R502,R503.R504,
A11369-120K2 12PF 50V 10% NPO 0805 T/R 6 C500.C501.C502.C600.C601.C6 A11371-2R71 2.7 OHM 0.10W 5% CHIP 3 C608.R609 A11371-8205 82 OHM 1W 5% SMD 2512 1 R607 A11427-104K2 0.1UF 50V 1% CHIP 0805 3 C505.C506.C605 C 9012-3 OP AMP. QUAD MC33079D 1 U500 102438-560K2 56PF 50V 10% NPO 0805 2 C504.C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503.C603 102471-2 HDR. 12POS. 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS., TERMINAL 1 T81 102579-1 STAND. BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW. 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600				R506,R600,R601,R602,R603,
A11371-2R71 2.7 OHM 0.10W 5% CHIP 3 C608,R605,R609 A11371-8205 82 OHM 1W 5% SMD 2512 1 R607 A11427-104K2 0.1UF 50V 1% CHIP 0805 3 C505,C506,C605 C 9012-3 OP AMP, QUAD MC33079D 1 U500 102438-560K2 56PF 50V 10% NPO 0805 2 C504,C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503,C603 102471-2 HDR, 12POS, 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS, TERMINAL 1 T81 102579-1 STAND, BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600		·		R604,R606
A11371-8205 82 OHM 1W 5% SMD 2512 1 R607 A11427-104K2 0.1UF 50V 1% CHIP 0805 3 C505.C506.C605 C 9012-3 OP AMP, QUAD MC33079D 1 U500 102438-560K2 56PF 50V 10% NPO 0805 2 C504.C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503.C603 102471-2 HDR, 12POS, 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS., TERMINAL 1 T81 102579-1 STAND, BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11427-104K2 Ø.1UF 50V 1% CHIP Ø805 3 C505,C506,C605 C 9012-3 OP AMP, QUAD MC33079D 1 U500 102438-560K2 56PF 50V 10% NPO 0805 2 C504,C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503,C603 102471-2 HDR, 12POS, 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS,, TERMINAL 1 T81 102579-1 STAND, BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600	A11371-2871	2.7 OHM 0.10W 5% CHIP	3	C608, R605, R609
C 9012-3 OP AMP, QUAD MC33079D 1 U500 102438-560K2 56PF 50V 10% NPO 0805 2 C504,C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503,C603 102471-2 HDR, 12POS, 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS,, TERMINAL 1 T81 102579-1 STAND, BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600	A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
102438-560K2 56PF 50V 10% NPO 0805 2 C504.C604 102467-1 22UF 25V 20% RADIAL T/R 2 C503.C603 102471-2 HDR, 12POS. 2.5MM RT ANG KEY 1 J502 102475-1 BLOCK, 5POS., TERMINAL 1 T81 102579-1 STAND, BROACHED 6-32 X .75 2 HW1,HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3,HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500.J600	A11427-104K2	Ø.1UF 50V 1% CHIP 0805	3	C505, C506, C605
102467-1       22UF 25V 20% RADIAL T/R       2 C503,C603         102471-2       HDR, 12POS. 2.5MM RT ANG KEY       1 J502         102475-1       BLOCK, 5POS., TERMINAL       1 TB1         102579-1       STAND. BROACHED 6-32 X .75       2 HW1,HW2         103415-70608       SCREW, 6-32X.5 TORX PNHD SEM       2 HW3,HW4         126929-1       1/4" TRS/XLR COMBO PCB VERT       2 J500,J600	C 9012-3	OP AMP, QUAD MC33079D	1	U500
102471-2       HDR, 12PGS. 2.5MM RT ANG KEY       1 J502         102475-1       BLOCK, 5POS., TERMINAL       1 TB1         102579-1       STAND, BROACHED 6-32 X .75       2 HW1, HW2         103415-70608       SCREW, 6-32X.5 TORX PNHD SEM       2 HW3, HW4         126929-1       1/4" TRS/XLR COMBO PCB VERT       2 J500, J600	102438-560K2	56PF 50V 10% NPO 0805	2	C504, C604
102475-1 BLOCK, 5POS., TERMINAL 1 TB1 102579-1 STAND, BROACHED 6-32 X .75 2 HW1, HW2 103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3, HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500, J600	102467-1	22UF 25V 20% RADIAL T/R	2	C503, C603
102579-1     STAND. BROACHED 6-32 X .75     2     HW1, HW2       103415-70609     SCREW, 6-32X.5 TORX PNHD SEM     2     HW3, HW4       126929-1     1/4" TRS/XLR COMBO PCB VERT     2     J500, J600	102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J502
103415-70608 SCREW, 6-32X.5 TORX PNHD SEM 2 HW3.HW4 126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500,J600	102475-1	BLOCK, 5POS., TERMINAL	1	TB1
126929-1 1/4" TRS/XLR COMBO PCB VERT 2 J500, J600	102579-1	STAND. BROACHED 6-32 X .75	2	HW1, HW2
	103415-70608	SCREW, 6-32X.5 TORX PNHD SEM	2	HW3, HW4
	126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600
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#### CROWN INTERNATIONAL INC. ELKHART, INDIANA 46517

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JAW 12/02/88 DWG. NO. DRAWN PROJ. MD398D0

1718 WEST MISHAWAKA ROAD

SHEET 2 OF 4

PHONE



(219) 294-8000

	PARTS LIST							
REF DES	C.P.N.	DESCRIPTION	MAP LOC.					
·	127004-1	PWB, CE INPUT						
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2					
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2					
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2					
C5Ø3	102467-1	22UF 25V 20% RADIAL T/R	B 1					
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2					
C505	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2					
C506	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2					
C509		OPEN						
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2					
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2					
C602	A11369-120K2		B 2					
C603	102457-1	22UF 25V 20% RADIAL T/R	<u> </u>					
C604	102438-560K2	56PF 50V 10% NPO 0805	B 2					
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2					
C608	A11371-2871	2.7 OHM 0.10W 5% CHIP	A 1					
C609		OPEN						
HW1	102579-1	STAND, BROACHED 6-32 X .75	E A					
HW2	102579-1	STAND, BROACHED 6-32 X .75	С 3					
нwз		SCREW. 6-32X.5 TORX PNHD SEM	E A					
HW4		SCREW, 6-32X.5 TORX PNHD SEM	С 3					
J500	126929-1	CONN., 1/4" XLR, PCB VERT.	B 2					
J5@2	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1					
J600	126929-1	CONN., 1/4" XLR, PCB VERT.	A 2					
<b>9500</b>	A11368-10021	10. KOHM .1W 1% CHIP 0805	C Z					
R5Ø1	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2					
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2					
H5Ø3	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2					
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	8 2					
A506	A11368-10021	10. KOHM .1W 1% CHIP 0805	8 2					
R508		OPEN	· <del>-</del>					
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2					
R6Ø1	A11368-10021	10. KOHM .1W 1% CHIP 0805	à 2					
R602	A11368-10021	10. KDHM .1W 1% CHIP 0805	B 2					
R603		10. KOHM .1W 1% CHIP 0805	8 2					
R604	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2					
R605	A11371-2H71	2.7 OHM 0.10W 5% CHIP	C 1					
R606	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2					
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2					
R608		OPEN						
R609	A11371-2R71	2.7 OHM 0.10W 5% CHIP	C 1					
TB1	102475-1	BLOCK, 5POS., TERMINAL	А З					
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2					
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## CROWN INTERNATIONAL INC.

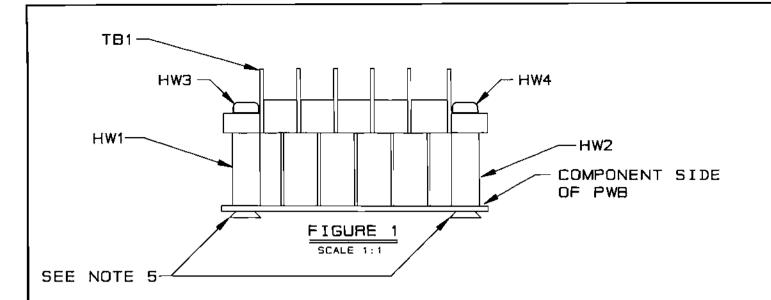
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1718 WEST	MISHAWA	KA ROAD E	ELKHART.	INDIANA	46517
DRAWN	AA C	12/02/98	DWG. N	<u>o.</u>	
PROJ.	м	0390DB	1	26	BB

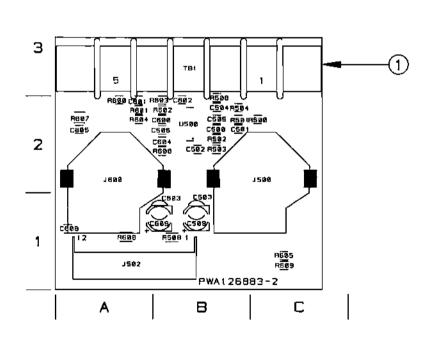
SHEET 3 OF 4

PHONE (219) 294-8000

B



## COMPONENT MAP (COMPONENT SIDE VIEW)



#### **INACTIVE**

For Reference Use Only Document Has Been Replaced with a Newer Version

CROWN	INTE	RNATIO	JNAL	INC.
1718 WEST MISHAWAKA ROA	D ELKHART.	INDIANA 46517	PHONE	(219) 294-80

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DRAWN JAW 12/02/98 PROJ. MD390D0

DWG. NO. SHEET 4 OF 4 2688

(219) 294-8000

RE∇

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E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	CHK	CM	EE	PE
1		A	INITIAL RELEASE FOR PRODUCTION (LEVEL I)	12/02/98	WAL	TLM	•		T
9820826	ļ	8	C508 WAS A11427-104K2. R605.R609 WERE A11371-1501. HW3.HW4 WERE 102002-1. ADDED NOTE 5.	12/02/98	JAW	TLM	1		T:
9960042		C	C608.R605.R609 WERE A11371-2R71. HW3,HW4 WERE 183415-70688.	02/01/99	JAW	Κw	හ		92
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UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET: IPC-A-610, CLASS 2

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 127014.
- 2. PWB PART NUMBER 127004-1.
- 3. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 5. SWAGE FIT HW1 & HW2 INTO PCB.



			ROV	MV In	٧T	ΈF	RNAT	IDNA	L INC	<b>)</b> .
	PRINTS	1718 WEST	MISHAWA	KA ROAD :	ELKH	ART.	INDIANA 485	317 PHO	NE_ (219) 294	-8000
	K		PWA	, CE S	5 T /	AND	ARD I	•	TOL.UNLESS SPEC	9.920
						**			X.XXX = ± DRILLS = ±	
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For Reference Use Only		CHECKED	TLM	12/04/98	ME			SUPERSEDE	5	
		SCALE	N	IONE	EE			€.C.N.		
THESE DRAWINGS AND SPECIFICATIONS ARE PROPERTY OF CROWN INTERNATIONAL, INC.	ÁND	PROJ #	N	4D390D0	PĘ	TS	12/24/98	DWG. NO.	SHEET 1 OF 4	
SHALL NOT BE REPRODUCED, COPIED, OR US AS THE BASIS FOR THE MANUFACTURE OR SAI OF APPARATUS OR DEVICES WITHOUT PERMIS	E SION.	NEXT ASS	EMBLY	_				1268	<u> 83-2</u>	(C)

PARTS LIST								
C. P. N.	DESCRIPTION	OTY	REFERENCE DESIGNATION					
A11368-10021	10. KOHM .1W 1% CHIP 0805	12	R500,R501,R502,R503,R504.					
	-		H506.R600.R601.R602.R603.					
	-		R604, R606					
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602					
A11371-1501	15 OHM 0.10W 5% CHIP	3	C609, R605, R609					
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607					
A11427-104K2	0.1UF 50V 1% CHIP 0805	3	C505, C506, C605					
C 9012-3	OP AMP, QUAD MC33079D	1	U500					
102438-560K2	56PF 50V 10% NPO 0805	2	C504, C604					
102467-1	22UF 25V 20% RADIAL T/R	2	C503, C603					
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J502					
102475-1	BLOCK, SPOS., TERMINAL	1	TB1					
102579-1	STAND, BROACHED 6-32 X .75	2	HW1 . HW2					
103435-70608	SCREW, 6-32X.5 TORX PNHD SEM	2	HW3, HW4					
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500.J600					
127004-1	PWB. CE INPUT	1	1					
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17:8 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8808

DRAWN JAW 12/82/98 DWG. NO. SHEET 2 OF 4 REV COMPARATUS OR DEVICES WITHOUT PERMISSION.

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LDC.
1	127004-1	PWB, CE INPUT	
C500	A11369-12@K2	12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0005 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	<b>B</b> 1
C5Ø4	102438-560K2	56PF 50V 10% NPO 0805	B 2
C5Ø5	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C5Ø6	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C5Ø9	·	OPEN	
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C6Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C6Ø2	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C694		58PF 50V 10% NPO 0805	B 2
C605		0.1UF 50V 1% CHIP 0805	A 2
C6Ø8	A11371-1501	15 OHM 0.10W 5% CHIP	A 1
C6Ø9		OPEN	
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	СЗ
нwэ		SCREW, 6-32X.5 TORX PNHD SEM	A 3
HW4		SCREW, 6-32X.5 TORX PNHD SEM	СЗ
J500	1 26929-1	CONN., 1/4" XLR, PCB VERT.	B 2
J502	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
J600	1 26929-1	CONN., 1/4" XLR, PCB VERT.	A 2
R500		10. KOHM .1W 1% CHIP 0805	C 2
R501		10. KOHM .1W 1% CHIP 0805	82
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	8 2
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R5Ø6	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R508		OPEN	
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R601	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	A11368-10021	10. KOHM .1W 1% CHIP 0805	<b>B</b> 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604		10. KOHM .1W 1% CHIP 0805	A 2
R625	A11371-15Ø1	15 OHM Ø.10W 5% CHIP	C t
R6Ø6	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
R608		OPEN	
R609	A11371-1501	15 OHM 0.10W 5% CHIP	C 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	ΕА
U500	C 9012-3	OP AMP. QUAD MC33079D	B 2
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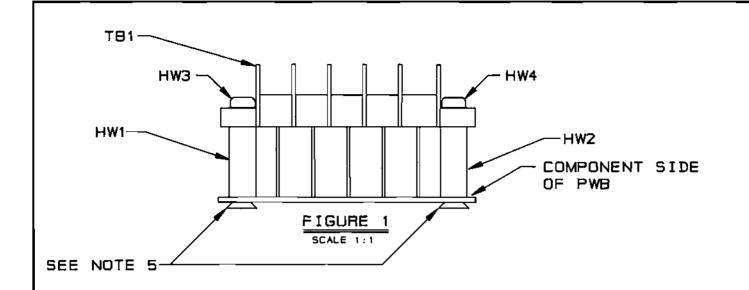
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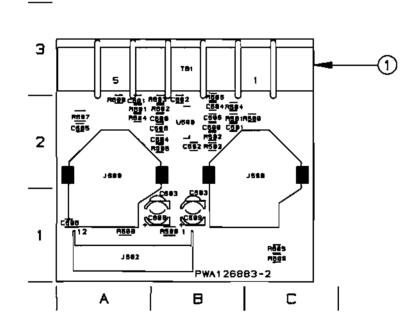
1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 48517 DRAWN PRQJ.

PHONE (219) 294-8800 SHEET 3 OF 4 REV DAW 12/82/98 DWG. NO. SHEET 3 OF 4 1 2 6 8 3 - 2





# COMPONENT SIDE VIEW)



# INACTIVE

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WEST MISHAWAKA ROAD	ELKHART. INDIANA 48517	PHONE	(219) 294-8898

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517

DRAWN JAW 12/82/98 DWG. NO.

€. C.	ZONE	REV.	DESCRIPTION	DATE	BY	CHK ¥		EE	PE
		<b>A</b>	INITIAL RELEASE TO PRODUCTION(LEVEL I)	<b>0</b> 2-23-99	J AW	1114	۷		R

### NOTES:

- SCHEMATIC DRAWING NUMBER 102141. 1.
- 2. PWB PART NUMBER 102138-9
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- B. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223 TO WP4 AND WP5 RESPECTIVELY.
- 18. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
- 11. INSTALLATION OF U188 AND U286 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 11B. BEND TRANSISTOR AT 98 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPDXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
- 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
  13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL R32X AS FOLLOWS:

BEND THE RESISTOR LEADS AT 90 DEGREES TO THE BODY. PLACE R32X WITH THE ELEMENT AWAY FROM C1. SOLDER R32X LEADS TO R32 AND R34 PADS SMD STYLE. SEE DETAIL C FOR CLARITY.

15. INSTALL S2 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 19 COMPONENT MAP FOR CLARITY.



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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			ROV	1I NV	٧T	ΈF	TANF	IONA	AL INC	
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K		SERF	PWA,	CE1K 1	Ø2 <sup>·</sup>	139·	-6 & -6	TOL. UNLESS SPECIFIED  X. XX * 1 8.828  X. XXX * 1 8.828  X. XXX * 1 8.803		
		DRAWN JAW 02-23-99 APPROVED BY: DO NOT SCALE PR				T SCALE PRIN	т			
		CHECKED	WM	3-4-99	ME	472	D3-01-91	SUPERSEDES		
		SCALE	. ^	ONE	EE			E.C.		
		PROJ #	ΜĐ	990D0	₽E	92	3-9-99	DWG. NO. SHEET 1 OF 20 FLEV		
	1	FILENAME:	127321	-1_A.PCB	NEX	CT AS	M:	1 127321-1 (A)		

	PARTS LIST						
C. P. N.	DESCRIPTION	OTY	REFERENCE DESIGNATION				
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,				
			HW15.HW16				
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212				
A10266-2R74	2.7 OHM 2W 5% CF	1	R158				
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218				
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,				
			HW22.HW23.HW24				
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101.R106.R110.R201.R205.				
			R210,R316.R416				
A11368-10021	10K 1/10W 1% CHIP 0805	23	R9.R104.R107,R108.R111.R121.				
			R176, R177, R182, R185, R193,				
	-		R196, R204, R211, R221, R276,				
			R277,R282,R285,R293,R296,				
			R313, R413				
			<del></del>				
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,				
7111333 13331	TOOK C. THE TAX CITED GOD		R183,R186,R189,R223,R225.				
			R279, R283, R286, R289				
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21				
	137 OHM 0.25W 1% CHIP	2	R139, R239				
	150 OHM 0.125W 1% CHIP	2	R137,R237				
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,				
X11300 13031	1338 2.144 17. [111 2023	-	R224, R287, R288				
A1136B-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209				
A11368-19122	20K 0.10W 1% CHIP 0805	1	R27				
A11368-20021	20K 0.25W 1% CHIP 1210	3	R10, R184, R284				
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291				
A11368-22661	392K 0.10W 1% CHIP 0805		R22.R23.R102.R180.R202.R280				
A11368-39231	499 OHM 0.10W 1% CHIP 0805	2	R103,R203				
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226				
A11368-43521		8					
X11306-31111	5.11K OHM 0.10W 1% CHIP 0805	-	R113,R175,R197,R213,R275, R297,R315,R415				
A11360-67631	57 EV 0 10W 19 CUID 000E		R20.R24.R190.R290				
A11368-57621	57.6K	4					
A11368-60432 A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R174,R192,R274,R292				
	68.1K 0.10W 1% CHIP						
A11368-68121	6.98K OHM 0.10W 1% CHIP 0805		R12,R115,R215				
A11368-69811		1	R5				
A11368-71511	7.15K 1/10W 1% CHIP 0805	1 3	R18				
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17.R114,R214				
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278				
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6				
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234				
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207				
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242				
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110.C141.C210.C241				

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ISHAWAKA ROAD ELKHART, INDIANA 46517
JAW 02/23/99 DWG, NO. **MWARI** PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 2 OF 20 RE



PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
A11371-ØRØ2	Ø.Ø OHM JUMPER CHIP 1206	4	R199, R299, R323, R423				
A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33				
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247				
A11371-1013	100 DHM . 25W 5% 1210 SMT T/R	2	R322,R422				
A11371-1022	1K Ø.125W 5% CHIP 1206	1	RB				
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138,R144,R145,R238,R244,R245				
A11371-1331	13K DHM Ø.10W 5% CHIP Ø805	4	R146,R161,R246,R261				
A11371-1501	15 CHM Ø.10W 5% CHIP	2	R160,R260				
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R153, R248, R263				
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232				
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2				
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19				
A11371-3333	33K 0.25W 5% CHIP 1210	5	R115.R140.R143.R219.R240.R243				
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,				
			R414				
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235				
A11371-3934	39K OHM 0.50W 5% EHIP 1210	4	R317.R318.R417.R418				
A11371-4701	47 OHM Ø.1@W 5% CHIP	2	R162,R262				
7,113/1 4/01	47 Silli 2. Fall 37 Gills	<del></del> -	111 02 / 112 02				
A11371-5R63	5.6 0.25W 5% CHIP	4	R150.R165.R250.R265				
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421				
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105.R128.R181.R205.R228.R281				
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227				
A11371-0821	750 DHM 0.10W 5% CHIP	3	R28,R133,R233				
A11371-7511	82 OHM 0.10W 5% CHIP	4	R136,R133,R233				
A11371-6281	BZ ORM B, IBW BX CHIF		N 30, N 34, N230, N234				
A11371-9311	820 OHM 0.10W 5% CHIP		R129,R141,R195,R229,R241,R295				
A11371-8211 A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1				
	WIRE, 16 BLU FAST X 5 X TERM	1	WP3				
A11379-C050U	0.01MF 50V 10% CHIP 0805	4					
A11427-103K2		<u> </u>	C109, C111, C209, C211				
A11427-103K5	0.01MF 50V 5% X7R 1205	2 30	C1 43, C243				
A11427-104K2	0.1 MF 50V 10% 0805	30	C2,C6,C7,C12,C24,C25,C28,C29,				
			C115, C122, C126, C127, C128,				
			C129, C130, C131, C132, C133,				
			C139, C215, C222, C226, C227,				
			C22B, C229, C230, C231, C232,				
444437 43383	A RIO NE ERVIARA CUTE		C233, C239				
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212				
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217				
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219				
A12125-3140K	WIRE, 22 WHT 3/15X14 X FAST	1	WP6				
C 2851-1	1N4004 SILICON RECT.	7	D1, D2. D3. D4. D6. D7. D10				
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201				
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	DB				
C 3679-5	33UF 50V 20% VERT ELECT	_1_	C31				
□ 4477-3	470 MF 35V VERT	2	C4,C5				

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 JAW 02/23/99 DWG. ND. DRAWN <u>12</u>7321-1

мрзэйрй

PROJ.

PHONE (219) 294-8000 SHEET 3 OF 20 REV

PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
C 5095-2	POS. 15 VOLT REG.	1	បា				
C 5096-0	NEG. 15 VOLT REG.	1	U2				
□ 5362-6	2.2 MF 50V VERT	1	C27				
C 6802-0	.47 MF 50V AX CERM	2	C102, C202				
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240				
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2				
C 7448-1	MMBT3904 CHIP NPN	6	0100.0101.0129.0200.0201.0229				
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4.U5.U105.U205				
C 8576-B	100 MF 35V 10% ELEC	1	C26				
C 9012-3	MC33079D QUAD LO NOISE OP AM	2	L101, L201				
C 9038-B	COMPARATOR, QUAD LM339D SC-1	4	U192, U194, U292, U294				
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223				
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104.Q204				
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,				
			D105.D106.D107.D108.D109.				
	-	<u> </u>	D110.D111,D112,D113,D116.				
			D117.D118.D119.D120.D121.				
			D122.D123.D124.D125.D126.				
			D127.D128.D129.D130.D201.				
			D202.D203,D204,D205,D206.				
	-		D207.D208.D209.D210.D211.				
	<del> </del>	_	D212, D213, D216, D217, D218,				
			D221, D222, D223, D224, D225,				
	· <del>-</del>	<del> </del>	D226. D227. D228. D229. D230				
C 9896~9	TEST POINT LOOP	2	TP30, TP39				
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X				
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109,0111,0202,0209,0211				
C10196-1	2.2MF 50V 20% RAD T/R	4	C121.C124,C221,C224				
C10208-4	100 MF 25V 20% VERT ELEC	2	C105.C205				
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114.D115.D214.D215				
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134.R234				
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20.C21				
H429Ø2-9	ASM, THERMAL SENSE	2	U106.U206				
1142302 5	NOW THE WALL SENSE	<del></del>	0.50.0220				
101016-1	LBL. BARCODE	1	2				
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4.WP5.WP7				
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4				
101573~1	HDR 4 POS .1 CTR MTA SHRD	1	J2				
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5				
102138-9	PWB, CE1000/CE2000 MAIN/INPL	1	1				
102138-5 102438-101K2	100PF 200V 10% NPO 0805	<u>-</u> -	C104.C120.C135.C204.C220.C235				
102438-560K2	56PF 200V 10% NPO 0805	2	C106, C206				
102438-820K2	82PF 200V 10% NPO 0805		-				
102436-82082	47UF 50V 20% RADIAL T/R	2	C108,C138,C208,C238				
_	<b>†</b>	· -					
102466-1	10UF 250V 20% RADIAL T/R	1	C1				
102467-1	22MF 25V 20% RAD T/R	2	C103, C203				
102468-1	47UF 10V 20% NP RAD T/R	4 -	C113, C114, C213, C214				
102470~1	INDUCTOR, 2.75UH 11A RADIAL	2	L102.L202				
482472 5	LINE ACROS ARE STE SO! TO!		12				
102472-3	HDR, 18POS . 100 CTR SGL ROW	1					

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8800

 DRAWN
 JAW 02/23/99
 DWG. NO.
 SHEET 4 OF 20
 RE
 PROJ. MD390D0



PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200				
102476-1	LED. SMT R/A GREEN	3	E1,E101,E201				
102477-1	LED. SMT H/A RED	4	E100,E102,E200,E202				
102478-1	TRIAC DRIVER SOS 8V THRESH	2	Q132.Q232				
102479-1	PWR MJD112 NPN DARLINGTON 10	3	01,02,03				
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133.Q233				
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208				
102483-1	PNP 300V 500MA 50T-23	2	Q103,Q203				
102486-1	OPTO BUT NPN SQIC-8 CTR -100	1	U3				
1024BB-1	SPDT HORIZ SLIDE	1	S1				
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	HS3				
102570-3	HS ASM, T1 ISOLATED CH2, , .	1	H54				
102571-3	HS ASM. T1 NON-ISOLATED CH1.	1	HS1				
102572-3	HS ASM, T1 NON-ISOLATED CH2.	1	H52				
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100, R200				
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,				
			HWB				
102723-2	OPTO CELL ON-500 DHM	2	U100,U200				
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7				
103191-1	Ø.47UF Z5U 1210 20% 50V	2	C144.C244				
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	0107.0110.0207.0210				
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220				
103199-1	Ø.4 OHM 1W 5% 2512 T/R	38	R1.R7.R152.R153.R156.R157.				
103133 1	B. 7 Still 17, 37 23.72 1711		R159,R167,R168,R171,R172,				
		<del>                                     </del>	R252,R253,R256,R257,R259,				
		<u> </u>	R267, R268, R271, R272, R300,				
		<u> </u>	R301.R302,R305,R306,R307,				
-	-	<u> </u>	R30B, R311, R312, R400, R401,				
		<del> </del>	R402,R405,R406,R407,R408,				
<del></del>		<u> </u>	R411,R412				
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237				
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T		WP2				
163331-N636K	WINE: 10 BEXYMEL IND X 3 X 1	<del>  '</del>	WEZ				
125106-1	MAC9D 8 AMP 400V TRIAC	2	0131,0231				
125106-1		<del> </del>	3				
125242-1	CAP, .625ID X 1" VINYL	2	·				
125478-1	3.83KOHM 0.50W 1% 2010 T/R	0	R142,R242				
125482-1	ADHESIVE LOCTITE 384 OUTPUT	<del></del>					
125483-1	ACTIVATOR LOCTITE "OUTPUT"	Ø	6				
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3.C30				
126317-1	REL. 30A 24V SPST PCB W/FAST	_	K100,K200				
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4				
127229-1	RES, 1100 OHM 5W 5% THICK F	1	R32X				
		-					
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 JAW 02/23/99 DWG. NO. DRAWN **ODBEEDM** 

PROJ.

SHEET 5 OF 20

PHONE (219) 294-8888



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	18
C2	A11427~104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	Н 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	8 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	Ø.1 MF 50V 10% 0805	N 9*
C25		0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		Ø.1 MF 50V 10% 0805	J 9*
C29		0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	18
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/A	е м
C102	C 6802-0	.47 MF 50V AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	Р В В В В В В В В В В В В В В В В В В В
C104		100PF 200V 10% NPO 0805	м 9*
C105		100 MF 25V 20% VERT ELEC	L 9
C106		56PF 200V 10% NPO 0805	L 9*
C107		27PF 50V 10% NPO 0805 T/R	L 9*
C108		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0805	H 6*
C110		470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N B
	102468-1	47UF 10V 20% NP RAD T/R	N B
C115		0.1 MF 50V 10% 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	18
C119		4700PF 50V 10% X7R 0805	I 7*
C1 2Ø		100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122		0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	
			M 10*
C129	A1:42/-104KZ	0.1 MF 50V 10% 0805	M 9*
			<del>                                     </del>
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JAW 02/23/99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 6 OF 20 RE 127321-1



PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.		
C130	A11427-104K2	Ø.1 MF 50V 10% 0805	н в*		
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*		
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*		
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*		
C134	A11369-102J2	0.001UF 50V 5% NPC MLC 0805 T/	M 7*		
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*		
C136	103210-1	2.2UF 160V RADIAL T/R	I 7		
C137	103210-1	2.2UF 160V RADIAL T/R	I 7		
C138	10243B-820K2	82PF 200V 10% NPO 0805	M 7*		
C139	A11427-104K2	0.1 MF 50V 10% 0805	6 7*		
C140	C 7091-9	0.33 MF 50V CHIP 1206	L S		
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10		
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	м 10		
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*		
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*		
C201	102465-1	.47UF 50V 20% RADIAL T/A	J 8		
C2Ø2	C 6802-0	. 47 MP 50V AX CERM	K 9		
C203	102467-1	22MF 25V 20% RAD T/R	K 9		
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*		
C205	C10208~4	100 MF 25V 20% VERT ELEC	J 9		
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*		
C207	A11369~270K2	27PF 50V 10% NPO 0805 T/R	J 9*		
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*		
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	н э*		
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*		
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*		
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L B*		
C213	102468-1	47UF 10V 20% NP RAD T/R	KΒ		
C214	102468~1	47UF 10V 20% NP RAD T/R	K 8		
C215	A11427-104K2	0.1 MF 50V 10% 0805	К В*		
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*		
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*		
C218		0.1 MF 250V 5% MTL POLY	I 1		
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*		
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*		
E221	C10196-1	2.2MF 50V 20% RAD T/R	E 8		
C222		0.1 MF 50V 10% 0805	€ 8*		
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9		
C224	C1Ø196-1	2.2MF 50V 20% RAD T/R	7 B		
C226		0.1 MF 50V 10% 0805	K 10*		
C227		0.1 MF 50V 10% 0805	K 9*		
C228		0.1 MF 50V 10% 0805	J 10*		
C229	+	0.1 MF 50V 10% 0805	J 9*		
C230		0.1 MF 50V 10% 0805	E 8*		
C231	<del></del>	0.1 MF 50V 10% 0805	E 7*		
C232		0.1 MF 50V 10% 0805	E 7*		
€233	A11427-104K2	0.1 MF 50V 10% 0805	D B*		
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1718 WEST	MISHAWA	KA ROAD E	ELKHART,	IND	IANA 46517
DRAWN	J AW	02/23/99	DWG.	NQ.	
PROJ.	мD	390D0	1	•	1273

SHEET 7 OF 20 REV

(219) 294-8888

PHONE



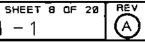
	· · · · ·	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2,2UF 160V RADIAL T/R	I 1
C23B	102438-820K2	B2PF 200V 10% NPO 0805	」 7 ★
C239	<del></del>	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241		470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C243		0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF ZSU 1210 20% 50V	E 7*
<u> </u>	1-15151-1	0.470F 230 1210 20% 30V	+
			+
		<del>-</del>	+
			_
	_		
	_		
Df	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 12
DЗ	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J B
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J B
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D101	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0		L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	*8 N
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
			<del></del>

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8088
DRAWN JAW 02/23/99 DWG. NO. SHEET 8 CF 20 RE PROJ. MD390D0



REF   DES   C.P. N	·		PARTS LIST	
D110	REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D111	D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8 *
D112   C 9283-8   D10DE,   IN914/IN4148   S0T-23 SMT   N 8*	D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113   C 9283-8   D10DE, 1N914/1N4148 S0T-23 SMT	D111	€ 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
DI14	D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D115	D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D116	D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
DI17	D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
Ditagram   Ditagram	D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D119	D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 101*
D120	D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D121   C 9283-0   D10DE. 1N914/1N4148 SOT-23 SMT	D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D122	D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D123   C 9283-0   D10DE, 1N914/1N4148 SOT-23 SMT   G 9*	D121	C 9283-0	DIGDE. 1N914/1N4148 SOT-23 SMT	L 9*
D124   C 9283-0   D10DE, 1N914/1N4148 SOT-23 SMT	D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D125	D123	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D126	D124	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	G 7*
D127	D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D128	D126	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D129         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         G 6*           D138         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         M 9           D201         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D202         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D203         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D204         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D205         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D206         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D207         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D208         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D209         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*           D211         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 6*	D127	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	мв
D138	D1 28	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D201   C 9283-0   DIODE, 1N914/1N4148 SOT-23 SMT   K 9*	D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D202	D1 3Ø	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D203         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D204         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D205         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D206         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D207         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D208         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7*           D209         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*     <	D201	C 9283~0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D204	D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D205         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D206         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D207         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D208         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7*           D209         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*     <	D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D207         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D208         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 7*           D209         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D210         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D214         C 10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 3           D215         C 10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 10*           D221         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D222         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*	D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D207         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D208         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7*           D209         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D210         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D222         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*     <	D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	_J 9*
D208         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         7*           D209         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D210         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D211         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D212         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D213         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D213         C         9283-0         DIODE         1N914/1N4148         SOT-23         SMT         K         8*           D214         C10422-1         DIODE         3A         400V         1N5404         AXIAL         I         2           D215         C10422-1         DIODE         3A         400V         1N5404         AXIAL         I         2           D216         C         9	D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D209         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D210         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 0*           D212         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 0*           D213         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 0*           D214         C 10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C 10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 0*           D217         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D222         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D223         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D224         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9203-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*	D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D211         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*     <	D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D211         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D212         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*	D209	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D212         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D213         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 8*           D214         C1Ø422-1         DIODE. 3A 4ØØV 1N54Ø4 AXIAL         I 3           D215         C1Ø422-1         DIODE. 3A 4ØØV 1N54Ø4 AXIAL         I 2           D216         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 1Ø*           D218         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         L 1Ø*           D221         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D224         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 7	D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 8*           D214         C10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE, 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 7	D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	
D214         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 3           D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E B*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7	D212	C 9283-0	DIODE. 1N914/1N4148 50T-23 5MT	К 8*
D215         C10422-1         DIODE. 3A 400V 1N5404 AXIAL         I 2           D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7	D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D216         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 8*           D217         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE. 1N914/1N4148 SOT-23 SMT         K 7	D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	1 3
D217         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 10*           D218         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         L 10*           D221         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-0         DIODE, 1N914/1N4148 SOT-23 SMT         K 7				
D218         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         L 1Ø*           D221         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 7				
D221         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         J 9*           D222         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         K 7				•
D222         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         K 9*           D223         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         K 7	<b>——</b>	<del>}</del>		<del></del>
D223         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 9*           D224         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         E 7*           D225         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE, 1N914/1N4148 SOT-23 SMT         K 7				<del>)</del>
D224       C 9283-Ø       DIODE, 1N914/1N4148 SOT-23 SMT       E 7*         D225       C 9283-Ø       DIODE, 1N914/1N4148 SOT-23 SMT       F 7*         D226       C 9283-Ø       DIODE, 1N914/1N4148 SOT-23 SMT       K 7		· · · · · · · · · · · · · · · · · · ·		
D225         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         F 7*           D226         C 9283-Ø         DIODE. 1N914/1N4148 SOT-23 SMT         K 7		<del></del>		
D226 C 9283-Ø DIODE, 1N914/1N414B SOT-23 SMT K 7	<b>—</b>			+
				<del>                                     </del>
D227 C 9283-0 DIODE, 1N914/1N4148 SOT-23 SMT K 8				<del>-</del> -
	D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	ΚÐ
		<u> </u>		<u></u> ,

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN JAW 02/23/99 DWG, NC. PROJ. MD390D0

PHONE (219) 294-8888 SHEET 9 OF 20 RE 127321-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	KΘ
E 1	102476-1	LED, SMT R/A GREEN	Ī 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H1 4		OPEN	I B
H1 B		OPEN	D B
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1,	7 3
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2.	
H53	102569-3	HS ASM, T1 ISOLATED CH1, , ,	· ·
HS4	102570-3	HS ASM, T1 ISOLATED CH2	+
HW1	1025/0-3	SPACER. 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 8X.187 LONG ALUMINUM	A 4
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1		_
		SPACER, 6X.187 LONG ALLMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
EWH	A10020-7	6-32 X .825 PCB CAPTIVE STUD	D 5
HWI Ø	A10020-7	6-32 X .825 PCB CAPTIVE STUD	1 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X 625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PC8 CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	ЕИ
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HWI 8	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A1_1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056~1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13 	102472-3		+
		HDR, 16POS . 100 CTR SGL ROW	M B
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	<b>_</b>

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 1718 WEST MISHAWAKA ROAD
 ELKHART. INDIANA 46517
 PHONE (219) 294-8000

 DRAWN
 JAW 02/23/99
 DWG. NO.
 SMEET 10 CF 20 REV
 PROJ. MD390D0



PARTS LIST						
REF DES	C.P.N.	DESCRIPTION	MAP LOC.			
J100	102473-1	SPEAKON. 4 POLE PCB HORZ	D 10			
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10			
		. "				
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9			
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	<b>E</b> 9			
L100	C 3510-2	CHOKE. 470UH 10% AXIAL	N 7			
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7			
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	Н 8			
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1			
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1			
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1			
Ω1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10			
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10			
03	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10			
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*			
0101	C 7448-1	MMBT3904 CHIP NPN	м 9*			
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*			
0103	102483-1	PNP 300V 500MA SOT-23	L 9*			
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6			
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*			
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*			
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*			
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*			
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*			
Q1 1 1	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*			
Q12Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*			
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*			
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F S			
Q132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9			
0133	102480-1	FET. N-CH 25V 50MA SOT-23	м 9*			
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*			
Q2Ø1	C 7448-1	MMBT3904 CHIP NPN	K 9*			
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*			
Q2Ø3	102483-1	PNP 300V 500MA SOT-23	J 9*			
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3			
Q2Ø5	103193-1	PNP 300V 500MA 50MHZ 50T-223	J 7*			
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*			
			-			
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			<u> </u>			

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THE WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-88888

DRAWN JAW 82/23/99 DWG. NO. SHEET 11 OF 28 RE PROJ. MD39@D@

127321-1

SHEET 11 OF 28 REV

REF DES C.P.N. DESCRIPTION MAP LOC. 0288 102481-1 NPN 25V LOW NOISE SOT-23 K 7* 0289 C 9931-4 MMBTS087LTI PNP XSISTOR SOT-23 K 8* 0210 103192-1 NPN 308V 5080MA 508M2 SOT-23 J 2* 0211 C 9931-4 MMBTS087LTI PNP XSISTOR SOT-23 J 2* 0220 103193-1 PNP 308V 5080MA 508M2 SOT-223 J 2* 0229 C 7448-1 MMBTS087LTI PNP XSISTOR SOT-23 J 2* 0229 C 7448-1 MMBTS087LTI PNP XSISTOR SOT-23 J 2* 0221 125106-1 MAC9D B AMP 408V TRIAC E 9* 0232 102478-1 TRIAC DRIVER SBS BV THRESH F 6 0232 102478-1 TRIAC DRIVER SBS BV THRESH F 6 0233 102480-1 FET. NCH 25V 508MA 50T-23 J 9* R1 103199-1 8.4 OHM 1W 5X 2512 T/R J 8* R2 A11371-3225 2.2X 1 W 5X CHIP 2512 J 8* R3 A11371-3341 338K 8.10W 5X CHIP 8085 I 1 8* R5 A11368-93111 9.31K 8.1W 5X CHIP 8085 D B* R6 A11368-93111 9.31K 8.1W 1X CHIP 8085 D B* R7 103199-1 8.4 OHM 1W 5X 2512 T/R J 8* R8 A11368-93111 9.31K 8.1W 1X CHIP 8085 D B* R8 A11368-93111 9.31K 8.1W 1X CHIP 8085 D B* R8 A11368-93111 9.31K 8.1W 1X CHIP 8085 D B* R9 A11368-10821 16K 1/16W 1X CHIP 8085 D B* R1 103199-1 0.4 OHM 1W 5X 2512 T/R J 8* R1 11 A11371-3341 338K 8.10W 5X CHIP 8085 D B* R8 A11368-10821 16K 1/16W 1X CHIP 8085 D B* R9 A11368-10821 16K 1/16W 1X CHIP 8085 D B* R1 1 A11371-1022 1 K 8.12SW 5X CHIP 1206 N 18* R1 1 A11371-3341 338K 8.10W 5X CHIP 8085 D B B* R1 1 A11371-3341 338K 8.10W 5X CHIP 8085 D B B* R1 1 A11371-1022 1 K 8.12SW 5X CHIP 8085 D B B* R1 1 A11371-3341 338K 8.10W 5X CHIP 8085 D B B* R1 1 A11371-3341 338K 8.10W 5X CHIP 8085 D B B* R1 1 A11371-3331 338			PARTS LIST	
Q209   C 9931-4   MMBTS0B7LT1 PNP XSISTOR SOT-23	REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q210	0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q211	0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q220	Q21Ø	103192-1	NPN 300V 500MA 50MHZ 50T-223	J 2*
Q229         C 7448-1         MMBT3984 CHIP NPN         E 9*           Q231         125186-1         MAC9D 8 AMP 400V TRIAC         E 9           Q232         102478-1         TRIAC DRIVER SBS 8V THRESH         F 6           Q233         102400-1         FET. N-CH 25V 50MA SOT-23         J 9*           R1         103199-1         0.4 0HM 1W 5X 2512 T/R         J 6*           R2         A11371-2225         2.2 K 1W 5X CHIP 2512         J 6*           R3         A11371-3341         330K 0.10W 5X CHIP 0805         I 6*           R4         A11371-3313         330 OHM 0.25W 5X CHIP         I 1*           R5         A11368-69811         6.98K OHM 0.10W 1X CHIP 0805         D 8*           R6         A11368-69811         9.31K 0.1W 1X CHIP 0805         D 8*           R7         103199-1         0.4 OHM 1W 5X 2512 T/R         J 8*           R8         A11371-1022         1K 0.125W 5X CHIP 1206         N 10*           R9         A11368-10021         1EK 1/10W 1X CHIP 0805         D 8*           R10         A11368-20021         1EK 1/10W 1X CHIP 0805         H 9*           R11         A11368-20021         1EK 1/10W 1X CHIP 0805         I 9*           R12         A11368-20021         68.1K 0.10W 1X CHI	Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0231   125106-1   MAC9D 8 AMP 400V TRIAC	Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
D232   102478-1   TRIAC DRIVER SBS 8V THRESH   F 8	0229	□ 7448-1	MMBT3904 CHIP NPN	E 9*
10233   102480-1   FET. N-CH 25V 50MA SOT-23   J 9*	0231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
R1	Q232	102478-1	TRIAC DRIVER SBS BV THRESH	F B
R2       A11371-2225       2.2K 1W 5% CHIP 2512       J 6*         R3       A11371-3341       330K 0.10W 5% CHIP 0805       I 8*         R4       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R5       A11368-69811       6.98K OHM 0.10W 1% CHIP 0805       D 8*         R6       A11368-93111       9.31K 0.1W 1% CHIP 0805       D 6*         R7       103199-1       0.4 OHM 1W 5% 2512 T/R       J 6*         R8       A11371-1022       1K 0.125W 5% CHIP 1206       N 10*         R9       A11368-10021       10K 1/10W 1% CHIP 0805       H 9*         R10       A11368-20023       20K 0.25W 1% CHIP 1206       N 10*         R11       A11371-3341       330K 0.10W 5% CHIP 1206       N 10*         R11       A11368-20023       20K 0.25W 1% CHIP 1206       N 10*         R11       A11368-20023       20K 0.25W 1% CHIP 1206       H 9*         R11       A11368-68121       68.1K 0.10W 1% CHIP 2005       I 9*         R12       A11368-68121       68.1K 0.10W 5% CHIP 2005       I 10*         R13       A11371-0821       0.2 OHM 0.10W 5% CHIP 2005       I 10*         R14       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R15       A11368-2021 <td>Q233</td> <td>102480-1</td> <td>FET, N-CH 25V 50MA SOT-23</td> <td>J 9*</td>	Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R3       A11371-3341       330K 0.10W 5% CHIP 0805       I 8*         R4       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R5       A11368-68811       6.98K OHM 0.10W 1% CHIP 0805       D 8*         R6       A11369-93111       9.31K 0.1W 1% CHIP 0805       D 8*         R7       103199-1       0.4 OHM 1W 5% 2512 T/R       J 8*         R8       A11369-10021       1K 0.125W 5% CHIP 1206       N 10*         R9       A11368-10021       10K 1/10W 1% CHIP 0805       H 9*         R10       A11368-20023       20K 0.25W 1% CHIP 1210       H 9*         R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11368-68121       68.1K 0.10W 1% CHIP       0805       I 9*         R12       A11371-0811       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11368-02511       0.25K 0.1W 1% CHIP 0805       I 10*         R19       A11368-75611       7.5K 0.10W 1% CHIP 0805       I 9*         R21	R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R4       A11371-3313       338 OHM Ø.25W 5% CHIP       I 1*         R5       A11368-69811       6.98K OHM Ø.10W 1% CHIP Ø8Ø5       D 8*         R6       A11368-93111       9.31K Ø.1W 1% CHIP Ø8Ø5       D 8*         R7       1Ø3199-1       Ø.4 OHM 1W 5% 2512 T/R       J 8*         R8       A11371-1022       1K Ø.125W 5% CHIP 12Ø6       N 10**         R9       A11368-10021       10K 1/10W 1% CHIP 12Ø6       H 9*         R10       A11368-10021       10K 1/10W 1% CHIP 121Ø       H 9*         R11       A11371-3341       330K Ø.10W 5% CHIP Ø8Ø5       I 9*         R12       A11368-68121       68.1K Ø.10W 1% CHIP       I 9*         R12       A11371-1011       10Ø OHM Ø.10W 5% CHIP Ø8Ø5       I 10*         R14       A11371-0R21       Ø.2 OHM Ø.10W 5% CHIP Ø8Ø5       I 10*         R15       A11371-0R21       Ø.2 OHM Ø.10W 5% CHIP Ø8Ø5       I 10*         R16       A11371-3923       3.9K Ø.25W 5% CHIP       N 9*         R17       A11368-62511       8.25K Ø.1W 1% CHIP Ø8Ø5       F 10*         R18       A11371-3313       33Ø OHM Ø.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R21       A11368-392	R2	A11371-2225	2.2K 1W 5% CHIP 2512	J B*
R5       A11368-69811       6.98K OHM Ø.10W 1% CHIP Ø8Ø5       D 8*         R6       A11368-93111       9.31K Ø.1W 1% CHIP Ø8Ø5       D 8*         R7       1Ø3199-1       Ø.4 OHM 1W 5% 2512 T/R       J 8*         R8       A11371-1Ø22       1K Ø.125W 5% CHIP 12Ø6       N 1Ø*         R9       A11368-1Ø021       10K 1/10W 1% CHIP Ø8Ø5       H 9*         R10       A11368-2Ø023       2ØK Ø.25W 1% CHIP 121Ø       H 9*         R11       A11371-3341       33ØK Ø.1ØW 5% CHIP Ø8Ø5       I 9*         R12       A11368-68121       68.1K Ø.1ØW 1% CHIP       I 9*         R13       A11371-1Ø11       10Ø OHM Ø.1ØW 5% CHIP Ø8Ø5       I 1Ø*         R14       A11371-0R21       Ø.2 OHM Ø.1ØW 5% CHIP Ø8Ø5       I 1Ø*         R15       A11371-0R21       Ø.2 OHM Ø.1ØW 5% CHIP Ø8Ø5       I 1Ø*         R16       A11371-3923       3.9K Ø.255W 5% CHIP       N 9*         R17       A11368-2511       B.25K Ø.1W 1% CHIP Ø8Ø5       D 8*         R19       A11371-3313       33Ø OHM Ø.25W 5% CHIP       I 1         R20       A11368-7621       57.6K Ø.1ØW 1% CHIP Ø8Ø5       I 9*         R21       A11368-39231       392K Ø.1ØW 1% CHIP Ø8Ø5       I 9*         R22       A11368-392	R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R6       A11368-93111       9.31K 0.1W 1% CHIP 0005       D 8*         R7       103199-1       0.4 OHM 1W 5% 2512 T/R       J 8*         R8       A11371-1022       1K 0.125W 5% CHIP 1206       N 10*         R9       A11368-10021       10K 1/10W 1% CHIP 0805       H 9*         R10       A11368-20023       20K 0.25W 1% CHIP 1210       H 9*         R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11368-68121       68.1K 0.10W 1% CHIP       I 9*         R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11368-82511       8.25K 0.1W 1% CHIP 0805       D 0*         R18       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 0*         R19       A11368-75621       57.6K 0.10W 1% CHIP 0805       D 0*         R21       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-3	R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R7       103199-1       0.4 OHM 1W 5% 2512 T/R       J 6*         R8       A11371-1022       1K 0.125W 5% CHIP 1206       N 10*         R9       A11368-10021       10K 1/10W 1% CHIP 0805       H 9*         R10       A11368-20023       20K 0.25W 1% CHIP 1210       H 9*         R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11368-68121       68.1K 0.10W 5% CHIP 0805       I 9*         R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11360-02511       8.25K 0.1W 1% CHIP 0805       D 0*         R19       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 0*         R19       A11368-75621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A1	R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
RB       A11371-1022       1K 0.125W 5% CHIP 1206       N 10*         RB       A11368-10021       10K 1/10W 1% CHIP 0805       H 9*         R10       A11360-20023       20K 0.25W 1% CHIP 1210       H 9*         R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11360-68121       68.1K 0.10W 1% CHIP       I 9*         R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0821       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11360-02511       0.25K 0.1W 1% CHIP 0805       D 0*         R18       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R19       A11360-7521       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11360-39231       392K 0.10W 1% CHIP 0805       I 9*         R22       A11360-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11360-39231       392K 0.10W 1% CHIP 0805       I 9*         R25       A11360-10031       100K 0.1W 1% CHIP 0805       I 9*         R26       A11371-	R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D B*
R9	R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R10       A11368-20023       20K 0.25W 1% CHIP 1210       H 9*         R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11368-68121       68.1K 0.10W 1% CHIP       I 9*         R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11368-02511       0.25K 0.1W 1% CHIP 0805       F 10*         R18       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-71511       7.15K 1/10W 1% CHIP 0805       I 9*         R21       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.10W 1% CHIP 0805       N 9*         R26 <t< td=""><td>RO</td><td>A11371-1022</td><td>1K 0.125W 5% CHIP 1206</td><td>N 10*</td></t<>	RO	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R11       A11371-3341       330K 0.10W 5% CHIP 0805       I 9*         R12       A11368-68121       68.1K 0.10W 1% CHIP       I 9*         R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11368-02511       0.25K 0.1W 1% CHIP 0805       F 10*         R18       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-71511       7.15K 1/10W 1% CHIP 0805       I 9*         R21       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       A 9*	R9	A11368-10021	10K 1/10W 1% CHIP 0805	н 9*
R12       A11368-68121       68.1K Ø.10W 1% CHIP       I 9*         R13       A11371-1011       100 OHM Ø.10W 5% CHIP Ø805       I 10*         R14       A11371-0R21       0.2 OHM Ø.10W 5% CHIP Ø805       I 10*         R15       A11371-0R21       0.2 OHM Ø.10W 5% CHIP Ø805       I 10*         R16       A11371-3923       3.9K Ø.25W 5% CHIP       N 9*         R17       A11360-82511       8.25K Ø.1W 1% CHIP Ø805       F 10*         R18       A11360-71511       7.15K 1/10W 1% CHIP Ø805       D 8*         R19       A11371-3313       330 OHM Ø.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K Ø.10W 1% CHIP Ø805       I 9*         R21       A11368-12121       12.1K OHM Ø.10W 1% CHIP Ø805       I 9*         R22       A11368-39231       392K Ø.10W 1% CHIP Ø805       I 9*         R23       A11368-39231       392K Ø.10W 1% CHIP Ø805       I 9*         R24       A11368-57621       57.6K Ø.10W 1% CHIP Ø805       I 9*         R25       A11368-10031       100K Ø.1W 1% CHIP Ø805       N 9*         R26       A11371-3341       330K Ø.10W 5% CHIP Ø805       A 9*         R27       A11368-20021       20K Ø.10W 1% CHIP Ø805       L 9*	R10	A11360-20023	20K 0.25W 1% CHIP 1210	H 9*
R13       A11371-1011       100 OHM 0.10W 5% CHIP 0805       I 10*         R14       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R15       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11360-82511       8.25K 0.1W 1% CHIP 0805       F 10*         R18       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 8*         R19       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-12121       12.1K OHM 0.10W 1% CHIP 0805       I 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-7621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R1 1	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R14       A11371-ØR21       Ø.2 OHM Ø.10W 5% CHIP Ø805       I 10*         R15       A11371-ØR21       Ø.2 OHM Ø.10W 5% CHIP Ø805       I 10*         R16       A11371-3923       3.9K Ø.25W 5% CHIP       N 9*         R17       A11360-82511       8.25K Ø.1W 1% CHIP Ø805       F 10*         R18       A11368-71511       7.15K 1/10W 1% CHIP Ø805       D 6*         R19       A11371-3313       330 OHM Ø.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K Ø.10W 1% CHIP Ø805       I 9*         R21       A11368-12121       12.1K OHM Ø.10W 1% CHIP Ø805       J 9*         R22       A11368-39231       392K Ø.10W 1% CHIP Ø805       I 9*         R23       A11368-39231       392K Ø.10W 1% CHIP Ø805       I 9*         R24       A11368-57621       57.6K Ø.10W 1% CHIP Ø805       I 9*         R25       A11369-10031       100K Ø.1W 1% CHIP Ø805       N 9*         R26       A11371-3341       330K Ø.10W 5% CHIP Ø805       A 9*         R27       A11368-20021       20K Ø.10W 1% CHIP Ø805       L 9*	R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R15       A11371-0R21       0.2 OHM 0.10W 5% CHIP 0805       I 10*         R16       A11371-3923       3.9K 0.25W 5% CHIP       N 9*         R17       A11368-02511       0.25K 0.1W 1% CHIP 0805       F 10*         R18       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 8*         R19       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-57621       57.6K 0.10W 1% CHIP 0805       J 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.10W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R16       A11371-3923       3.9K Ø.25W 5% CHIP       N 9*         R17       A11368-82511       8.25K Ø.1W 1% CHIP Ø8Ø5       F 1Ø*         R18       A11368-71511       7.15K 1/10W 1% CHIP Ø8Ø5       D 8*         R19       A11371-3313       33Ø OHM Ø.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R21       A11368-12121       12.1K OHM Ø.10W 1% CHIP Ø8Ø5       J 9*         R22       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         R23       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         R24       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R25       A11368-10Ø31       10ØK Ø.1W 1% CHIP Ø8Ø5       N 9*         R26       A11371-3341       33ØK Ø.10W 5% CHIP Ø8Ø5       A 9*         R27       A11368-20Ø21       20K Ø.10W 1% CHIP Ø8Ø5       L 9*	R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R17       A11368-82511       8.25K       0.1W 1% CHIP 0805       F 10*         R18       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 8*         R19       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-12121       12.1K OHM 0.10W 1% CHIP 0805       J 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R18       A11368-71511       7.15K 1/10W 1% CHIP 0805       D 6*         R19       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-12121       12.1K OHM 0.10W 1% CHIP 0805       J 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R16	A11371-3923	3.9K Ø.25W 5% CHIP	N 9*
R19       A11371-3313       330 OHM 0.25W 5% CHIP       I 1*         R20       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R21       A11368-12121       12.1K OHM 0.10W 1% CHIP 0805       J 9*         R22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         R24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         R25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R20       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R21       A11368-12121       12.1K OHM Ø.10W 1% CHIP Ø8Ø5       J 9*         R22       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         R23       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         R24       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R25       A11368-10Ø31       10ØK Ø.1W 1% CHIP Ø8Ø5       N 9*         R26       A11371-3341       33ØK Ø.10W 5% CHIP Ø8Ø5       A 9*         R27       A11368-2ØØ21       2ØK Ø.1ØW 1% CHIP Ø8Ø5       L 9*	R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
H21       A11368-12121       12.1K OHM 0.10W 1% CHIP 0805       J 9*         H22       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         H23       A11368-39231       392K 0.10W 1% CHIP 0805       I 9*         H24       A11368-57621       57.6K 0.10W 1% CHIP 0805       I 9*         H25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         H26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         H27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
H22       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         H23       A11368-39231       392K Ø.10W 1% CHIP Ø8Ø5       I 9*         H24       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         H25       A11368-10Ø31       10ØK Ø.1W 1% CHIP Ø8Ø5       N 9*         H26       A11371-3341       33ØK Ø.10W 5% CHIP Ø8Ø5       A 9*         H27       A11368-2ØØ21       2ØK Ø.10W 1% CHIP Ø8Ø5       L 9*	A20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
A23       A11368-39231       392K Ø.10W 1% CHIP Ø805       I 9*         B24       A11368-57621       57.6K Ø.10W 1% CHIP Ø805       I 9*         B25       A11368-10Ø31       10ØK Ø.1W 1% CHIP Ø805       N 9*         B26       A11371-3341       33ØK Ø.1ØW 5% CHIP Ø805       A 9*         B27       A11368-2ØØ21       2ØK Ø.1ØW 1% CHIP Ø805       L 9*	FI21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R24       A11368-57621       57.6K Ø.10W 1% CHIP Ø8Ø5       I 9*         R25       A11368-10Ø31       10ØK Ø.1W 1% CHIP Ø8Ø5       N 9*         R26       A11371-3941       33ØK Ø.10W 5% CHIP Ø8Ø5       A 9*         R27       A11368-2ØØ21       2ØK Ø.1ØW 1% CHIP Ø8Ø5       L 9*	F122	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
H25       A11368-10031       100K 0.1W 1% CHIP 0805       N 9*         H26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         H27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	A23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R26       A11371-3341       330K 0.10W 5% CHIP 0805       A 9*         R27       A11368-20021       20K 0.10W 1% CHIP 0805       L 9*	F124	A11368-57621	57.6K 0.10W 1% CHIP 0805	* e 1
H27 A11368-20021 20K 0.10W 1% CHIP 0805 L 9*	R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
	R26	A11371-3341	330K 0.10W 5% CHIP 0805	* E A
H28       A11371-7511       750 OHM 0.10W 5% CHIP       L 9*         L 9*       L 9*         L 9*       L 9*         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 9 *       L 9 *         L 1	F127	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
	A28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517 PHONE (219) 294-9888

DRAWN JAW 82/23/99 DWG. NO. SHEET 12 OF 20 REV PROJ. MD39@D@



PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.		
R30		100K 0.1W 1% CHIP 0805	I B*		
R31		100K 0.1W 1% CHIP 0805	J 8*		
R32		DO NOT INSTALL	J B		
R32X	127229-1	RES. 1100 DHM 5W 5% THICK FILM	J B		
R33	A11371-0821	0.2 DHM 0.10W 5% CHIP 0805	I 10*		
R34		DO NOT INSTALL	J B		
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1		
R1 Ø1		1K 0.10W 1% CHIP 0805	M 10*		
R102		392K 0.10W 1% CHIP 0805	N 9*		
R103		499 OHM 0.10W 1% CHIP 0B05	N 9*		
R104		10K 1/10W 1% CHIP 0805	N 9*		
R1 Ø5	A11371-6B14	680 OHM 0.50W 5% CHIP	J 1*		
R1 Ø6		1K 0.10W 1% CHIP 0805	M 5*		
R107		10K 1/10W 1% CHIP 0805	L 10*		
R108		10K 1/10W 1% CHIP 0805	L 10*		
R109		19.1K Ø.125W 1% CHIP 1206	M 9*		
R110		1K 0.10W 1% CHIP 0805	L 9*		
R111		10K 1/10W 1% CHIP 0805	L 9*		
R112	<del>-</del>	19.1K Ø.25W 1% MF	L 9		
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*		
R114		8.25K Ø.1W 1% CHIP Ø8Ø5	L 10*		
R115	<del></del>	68.1K Ø.10W 1% CHIP	L 10*		
R116		226 OHM 0.10W 1% CHIP 0805	M 9*		
R117	A11371-3341	330K 0.10W 5% CHIP 0005	M 9*		
R118	<del>-</del>	6.81K OHM 0.10W 1% CHIP 0805	M 10		
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*		
R120		90.9K 0.10W 1% CHIP 0805	M 9*		
R121	<del></del>	10K 1/10W 1% CHIP 0805	M 10		
R122	†	158K 0.10W 1% CHIP 0805	N 9*		
R1 23	<del>                                       </del>	100K 0.1W 1% CHIP 0805	M 9*		
R124		158K 0.10W 1% CHIP 0805	м 9*		
R1 25		100K 0.1W 1% CHIP 0805	N 9*		
R126		49.9K 0.1W 1% CHIP 0805	M 9*		
R127	A11371-6821	5.8K 0.10W 5% CHIP 0805	N 9*		
R128	A11371-6814	580 OHM 0.50W 5% CHIP	J 1*		
R129	A11371-8211	620 OHM 0.10W 5% CHIP	N 7*		
R130	7111071 0211	OPEN	0 B*		
R131		OPEN	D 8*		
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*		
R133	A11371-7511	750 DHM 0.10W 5% CHIP	H 6*		
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7		
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*		
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*		
R137		150 OHM 0.125W 1% CHIP	N 8*		
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*		
R138	A11368-13703	137 OHM 0.25W 3% CHIP	N 8*		
	· ·	33K 0.25W 5% CHIP 1210	<del>                                     </del>		
R140	A11371-3333		N 8*		
R141	A11371~8211	820 OHM 0.10W 5% CHIP	<u>O_B*</u>		
<b></b>	<del>-</del>		<del> </del>		

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1710 WEST MISHAWAKA ROAD JAW 02/23/89 DWG, NO. DRAWN

PROJ.

**ODGEEDM** 

ELKHART, INDIANA 46517 PHONE (219) 294-6800 DWG, NO. SHEET 19 OF 20 RE

SHEET 13 OF 20



REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
A150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
A159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R150	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 2805	Н 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
F157	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	f 6×
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	н 8*
Ř178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W_1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0 10W 1% CHIP 0805	M 10*
ន189	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189		100K 0.1W 1% CHIP 0805	M 10*
R1 <u>90</u>	A1136B-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	<del>-</del>	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	·	N 9*
R194	A <u>11371-8201</u>	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	м 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 1Ø

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 284-8888
DRAWN JAW 82/23/99 DWG. NO. SHEET 14 OF 20 RE PROJ. MD39@D@



PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
R198		OPEN	M 10		
R198	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*		
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1		
R2Ø1	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*		
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*		
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*		
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*		
R205	A11371-6814	680 OHM 0.50W 5% CHIP	м 1*		
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*		
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*		
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*		
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 3*		
R212	A10265-19121	19.1K 0.25W 1% MF	J <u>8</u>		
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*		
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*		
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*		
R216	A11368~22601	226 OHM Ø.10W 1% CHIP 0805	K 9*		
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*		
R218	A11368-68111	6.81K OHM Ø.10W 1% CHIP 0805	K 10		
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*		
R22Ø	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*		
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10		
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*		
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*		
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*		
R225	A11368~10031	100K 0.1W 1% CHIP 0805	∟ 9*		
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*		
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*		
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *		
R229	A11371-821 <u>1</u>	820 OHM 0.10W 5% CHIP	K 7*		
R23Ø		<u>OPEN</u>	L 7*		
R231		OPEN	L 7*		
R232	A11371-2223	2.2K_0.25W 5% CHIP 1210	H 3*		
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*		
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	_ J 7		
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*		
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*		
R237		150 OHM 0.125W 1% CHIP	K B*		
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*		
R239	A11368-13703		K 8*		
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*		
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L B*		
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*		
R243	A11371-3333	33K Ø.25W 5% CHIP 121Ø	K 8*		
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*		
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*		
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*		

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1718 WEST MISHAWAKA ROAD JAW 02/23/98 DWG, NO. DRAWN PAOJ. MD390D0

ELKHART, INDIANA 48517 PHONE (219) 294-8000 g DWG, NO. SHEET 15 OF 20 RE 127321-1



PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*		
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*		
R25Ø	A11371-5R63	5.6 0.25W 5% CHIP	J 2*		
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*		
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	К 3*		
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*		
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*		
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*		
R26Ø	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*		
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*		
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*		
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*		
R265	A11371~5R63	5.6 0.25W 5% CHIP	E 2*		
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	€ 4*		
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*		
R271	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*		
R272	103199-1	Ø.4 OHM 1W 5% 2512 T/R	н з*		
R274		604K OHM Ø.125W 1% CHIP 1206	E 8*		
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*		
R276		10K 1/10W 1% CHIP 0805	E 8*		
R277		10K 1/10W 1% CHIP 0805	E 8*		
R278		90.9K 0.10W 1% CHIP 0805	L 9*		
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*		
R28Ø	A11368-39231		E 8*		
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*		
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*		
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*		
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*		
R285		10K 1/10W 1% CHIP 0805	F 8*		
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*		
F1287	A11368-15831	158K Ø.10W 1% CHIP 0805	K 10*		
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*		
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*		
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	*E N		
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*		
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*		
R293		10K 1/10W 1% CHIP 0805	к 9*		
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*		
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*		
R296	A11368-10021		K 9*		
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10		
R298		OPEN	K 1Ø		
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*		
H300	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*		
H3Ø1	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 6*		
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*		
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*		
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INC. CROWN INTERNATIONAL ELKHART, INDIANA 46517

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JAW 02/23/99 DWG. ND. DRAWN PROJ. MD390D0

PHONE (219) 294-8888 SHEET 16 OF 20 REV 127321-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	€ 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	NΒ
A319		OPEN	M 10*
F1322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-ØRØ2	0.0 OHM JUMPER CHIP 1206	6.8
R400	103199-1	0.4 DHM 1W 5% 2512 T/R	D 3*
R4Ø1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
H402	103199-1	0.4 OHM 1W 5% 2512 T/R	к 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	и э*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	Ø.4 DHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413		10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415		5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416		1K 0.10W 1% CHIP 0805	K 1@*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K B
R419	X113/1-3334	OPEN	K 10*
H420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-5H05	100 OHM .25W 5% 1210 SMT T/R	J 9
	A11371-0802	0.0 OHM JUMPER CHIP 1206	F 8
R423	A11371-0H02	E.E CAM JUMPER CAIF 1280	
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INC. CROWN INTERNATIONAL

PHONE (219) 294-8000

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN JAW 82/23/99 DWG. NO. PROJ. MD390D6

SHEET 17 OF 20



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
S1	102408-1	SPDT HORIZ SLIDE	L 10
52	€ 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
បា	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 19
U2	C 5096-0	NEG. 15 VOLT REG.	Н 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	н 9
П3	102488-1	OPTO BJT NPN SOIC-B CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	19
<b>П</b> 5	C B262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON-500 OHM	м 9
U101	C 9012-3	MC33079D QUAD LO NOISE OF AMP	M 10
U1Ø2	C 9038-8	COMPARATOR, QUAD LM339D SQ-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SD-14	G 7
U105	C 8282-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON-500 OHM	K 9
U2Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U2Ø4	C 9030-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U2Ø6	H42902-9	ASM, THERMAL SENSE	N 3
WPi	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	10333 <u>1-N050R</u>	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE. 22 WHT 3/16X14 X FAST	) B
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB. CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL. BARCODE	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 30Z SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
		<u>_</u>	

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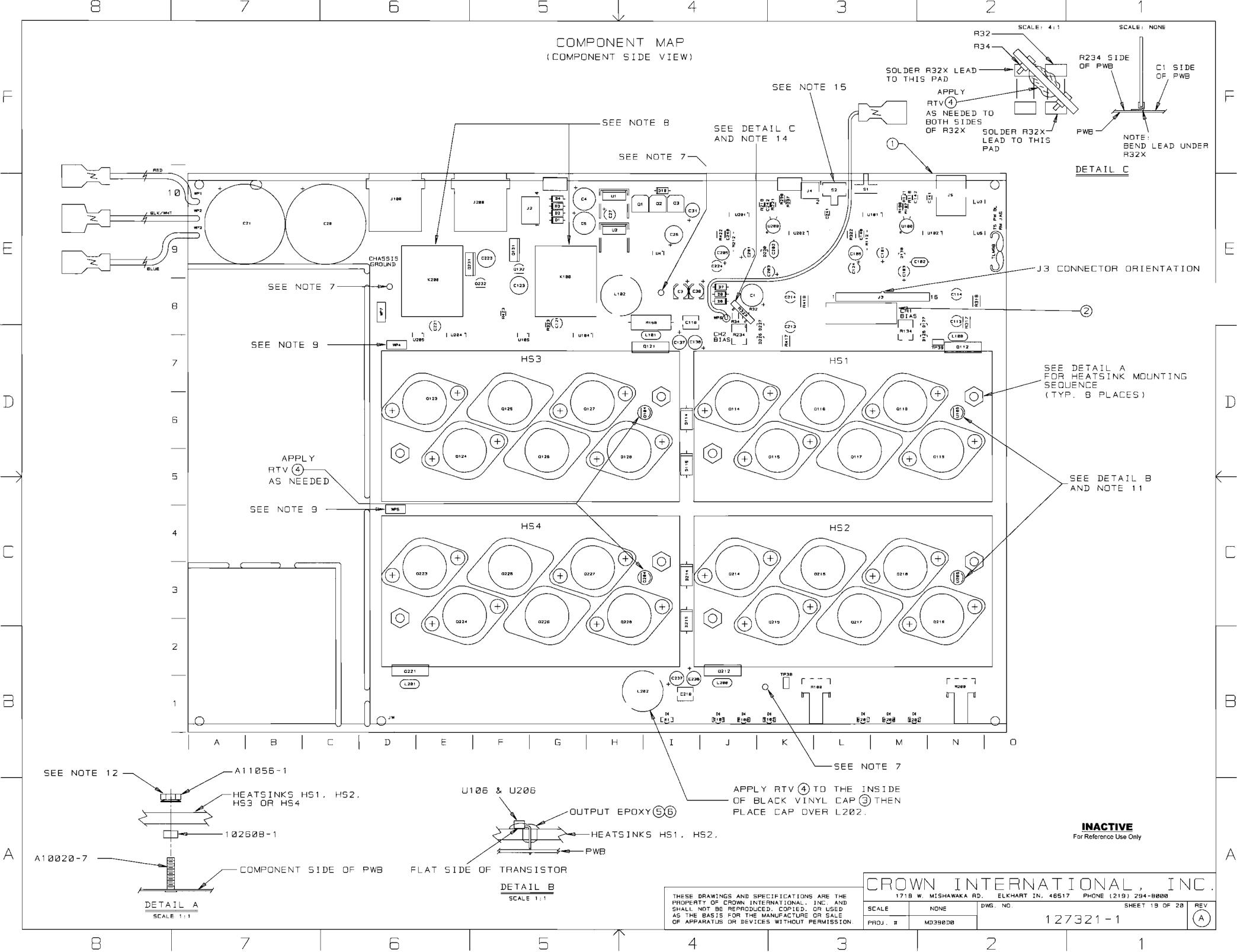
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-B888
DRAWN JAW 02/23/99 DWG. NO. SHEET 18 OF 20 RE JAW 02/23/99 DWG. NO. PAOJ. MD390D0

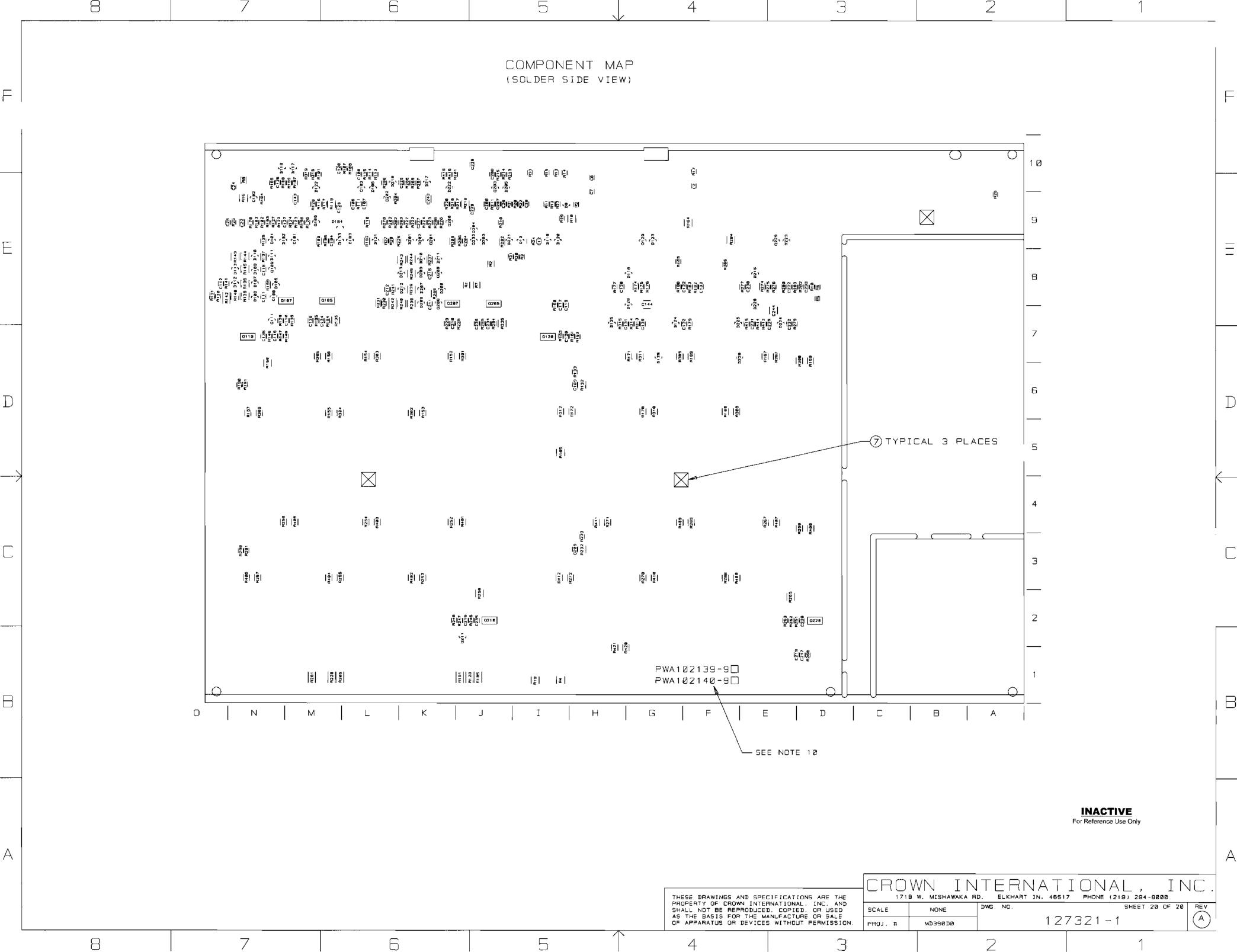




# **Component Map**

for use with Main PWA 127321-1





E.C.N. ZON	E REV.	DESCRIPTION	DATE	BY	<b>SHK</b>	PPROVAL ICM TEE	TPE 2
T991752	A	INITIAL RELEASE TO PRODUCTION.	09-10-99	_	-	KV WA	198
					$U^{-}$		

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102141.
- 2. PWB PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
   ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL 52 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 19 COMPONENT MAP FOR CLARITY.



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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_				ROV	N II	JTE	ΞF	NA	Т	IONA	\L	INC	
	PRIN	TS TO	1718 WEST	MISHAWA	KA ROAD	ELKHAF	ŧΤ,	INDIANA	465	517	PHONE	(219) 29	4-0000
E	K		SERF I	PWA,	CE1K 1	<b>221</b> 3	39-	6 &	-8		×	X.XX = ± (.XXX = ± (ILLS = ±	0.026 0.010
			DHAWN ,	KLW	09-10-99	APF	PROV	ED 8Y:		DO NO	T SCA	LE PAIN	г
			CHECKED	MW	09-10-99	ME N	J [pk			SUPERSED	S		
			SCALE /	) N	IONE	EE M	lg			E.C.			
	·		PAOJ #	MD	390 DØ	PE G	18	9/10/	19	DWG. NO.		f 1 OF 19	FEV
			FILENAME:	127321-	Z_A_01.PE8	NEXT	AS	M:		127	<u>32</u>	1 - 2	$\triangle$

PARTS LIST									
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION						
A10020-7	6-32 X .625 PC8 CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,						
	<del>-</del>		HW15, HW16						
A10265-19121	19.1K Ø.25W 1% MF	2	R112,R212						
A10266-2R74	2.7 OHM 2W 5% CF	1	R158						
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218						
A11056~1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW18, HW20, HW21,						
			HW22.HW23.HW24						
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,						
· · ·			R210,R316,R416						
A11368-10021	10K 1/10W 1% CHIP 0805	23	R9.R104.R107.R108.R111.R121.						
			R176,R177,R182,R185,R193,						
<del> </del>			R196, R204, R211, R221, R276,						
			R277, R282, R285, R293, R296,						
			R313.R413						
A11368-10031	100K 0.1W 1% CHIP 0005	15	R25,R30,R31,R123,R125,R179,						
777733	7,00 K 0,1 K 7,7 0 K 1. 0000	, <u>, , , , , , , , , , , , , , , , , , </u>	R183,R186,R189,R223,R225,						
			R279,R283,R286,R289						
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21						
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139, R239						
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,						
X11300 13031	130K 8.10W 1% CITE 8083	-	R224, R287, R288						
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209						
A11368-20021	20K 0.10W 1% CHIP 0805	1	827						
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10.R184,R284						
	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291						
A11368-22601	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280						
A11368-39231	499 OHM 0.10W 1% CHIP 0805	2	R103, R203						
A11368-49901	499 OHM .125W 1% 1206 T/R	2	R137.R237						
A11368-49902	· · · · · · · · · · · · · · · · · · ·	2							
A11368-49921	49.9K 0.1W 1% CHIP 0805	_	R126, R226						
A11 <u>36</u> 8-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113,R175,R197,R213,R275,						
A44260 - 67624	E7 CV & 10W 1% CUID BORE		R297, R315, R415						
	57.6K 0.10W 1% CHIP 0805		R20, R24, R190, R290						
A11368-60432	604K OHM 0.125W 1% CHIP 1206		R174.R192,R274.R292						
	6.81K OHM 0.10W 1% CHIP 0805		R118, R218						
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215						
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5						
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	RiB						
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214						
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278						
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6						
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234						
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207						
A11369-330J2	33PF 50V 5% NPD MLC 0005	2	C142,C242						
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110,C141,C210,C241						
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423						
A11371-R221	.220HM .1W 5% 0805 SMT	3	R14, R15, R33						
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247						
		<u></u>							

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KLW 09/10/99 DWG. NO. 1718 WEST MISHAWAKA ROAD DRAWN MD390D0

PROJ.

PHONE (219) 294-88000 SHEET 2 OF 19 RE



A11371-1331		PARTS LIST					
A11371-1922	C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A11371-1213 120 OHM 0. 25W 5% CHIP 6 R139.R144.R145.R239.R244.R245 A11371-1331 13K OHM 0. 18W 5% CHIP 2 R166.R266 A11371-1501 15 OHM 0. 18W 5% CHIP 2 R166.R266 A11371-1611 180 OHM 0. 18W 5% CHIP 2 R166.R266 A11371-2223 2. 2K 0. 25W 5% CHIP 1210 2 R132.R232 A11371-2225 2. 2K 1W 5% CHIP 2512 1 R2 A11371-3333 33W 0-MM 0. 25W 5% CHIP 1210 5 R119.R140.R143.R219.R240.R243 A11371-3333 33W 0-MM 0. 25W 5% CHIP 1210 6 R119.R140.R143.R219.R240.R243 A11371-3333 38W 0. 25W 5% CHIP 1210 6 R119.R140.R143.R219.R240.R243 A11371-3333 38W 0. 25W 5% CHIP 1210 7 R3.R11.R26.R117.R217.R314. A11371-3333 38W 0. 25W 5% CHIP 1210 7 R3.R11.R26.R117.R217.R314. A11371-3333 3. SW 0. 25W 5% CHIP 1210 8 R119.R140.R143.R219.R240.R243 A11371-3333 3. SW 0. 25W 5% CHIP 2512 7 R3.R11.R26.R117.R217.R314. A11371-3333 3. SW 0. 25W 5% CHIP 1210 4 R317.R316.R417.R418 A11371-3923 5. SW 0. MM 0. 50W 5% CHIP 2 R162.R262 A11371-3565 5. SW 0. MM 0. 50W 5% CHIP 2 R162.R262 A11371-5865 5. SW 0. MM 1W 5% 2 S12 T/R 2 R32.R34 A11371-5865 5. SW 0. MM 1W 5% CHIP 2512 7 R420.R421 A11371-6814 680 0-MM 0. 50W 5% CHIP 8 R420.R421 A11371-6821 8. SW 0. 10W 5% CHIP 8 R640.R183.R238.R238.R286.R286.R1371-8211 A11371-8211 82 0-MM 0. 10W 5% CHIP 8 R640.R183.R238.R238.R238.R238.R238.R238.R238.R2	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422			
A11371-1331	A11371-1022	1K 0.125W 5% CHIP 1206	1	RB			
A11371-1591	A11371-1213	120 OHM 0.25W 5% CHIP	6	R138.R144,R145.R238.R244,R245			
A11371-1811	A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261			
A11371-2223	A11371-1501	15 OHM 0.10W 5% CHIP	2	R160,R260			
A11371-2225	A11371-1811	180 OHM 0.10W 5% CHIP	4	R148.R163.R248.R263			
A11371-3313 330 OHM 0.25W 5% CHIP 1210 6 R119.R140.R143.R219.R240.R243 11371-3331 33K 0.25W 5% CHIP 1210 6 R119.R140.R143.R219.R240.R243 11371-3341 330K 0.10W 5% CHIP 0805 7 R3.R11.R26.R117.R217.R314.  A11371-3923 3.9K 0.25W 5% CHIP 1210 4 R1414.R143.R219.R240.R243 11371-3934 39K OHM 0.50W 5% CHIP 1210 4 R1414.R143.R219.R4418 A11371-3934 39K OHM 0.50W 5% CHIP 210 4 R137.R318.R417.R418 A11371-5865 5 G0 OHM 1W 5% CHIP 2 R162.R262 A11371-5865 5 G0 OHM 1W 5% CHIP 4 R150.R165.R250.R265 A11371-5865 5 G0 OHM 1W 5% CHIP 4 R150.R165.R250.R265 A11371-5865 5 G OHM 1W 5% CHIP 4 R150.R165.R250.R265 A11371-6821 6.6K 0.10W 5% CHIP 6 R105.R128.R181.R205.R228.R281 A11371-6921 6.6K 0.10W 5% CHIP 3 R28.R133.R233 R29.R1371-8201 82 OHM 0.10W 5% CHIP 3 R28.R133.R233 R29.R1371-8201 82 OHM 0.10W 5% CHIP 4 R136.R194.R236.R294 A11371-6201 82 OHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11371-8201 82 OHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11378-A0580 WIRE. 15 RED FAST X 5 X TERM 1 WP1 A11379-C0580 WIRE. 15 RED FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109.C111.C115.C209.C211.C215 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109.C111.C115.C209.C211.C215 A11427-103K2 0.01MF 50V 10% CHIP 0805 7 C222.C226.C27.C226.C229.C29.C231.C232.C233.C233.C239 C231.C232.C233.C233.C233.C233.C233.C233.	A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232			
A11371-3333	A11371-2225	2.2K 1W 5% CHIP 2512	1	R2			
A11371-3341 338K 0.10W 5% CHIP 0805 7 R3.R11.R26,R117.R217.R314,  A11371-3923 3.9K 0.25W 5% CHIP 3 R414  A11371-3934 39K 0HW 0.50W 5% CHIP 1210 4 R317.R318,R417.R418  A11371-4701 47 OHM 0.16W 5% CHIP 2 R162.R262  A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32.R34  A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32.R34  A11371-5863 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265  A11371-5865 5.6 0HM 1W 5% CHIP 5 R2512 T/R 2 R32.R34  A11371-6814 680 OHM 0.50W 5% CHIP 6 R165.R128.R181,R205.R228.R281  A11371-6814 680 OHM 0.50W 5% CHIP 6 R165.R128.R181,R205.R228.R281  A11371-6821 6.8K 0.10W 5% CHIP 7 R42.R421  A11371-8011 82 OHM 0.10W 5% CHIP 8 R5 R133.R233  A11371-8201 82 OHM 0.10W 5% CHIP 8 R5 R136.R194.R236.R294  A11371-8201 82 OHM 0.10W 5% CHIP 8 R5 R136.R194.R236.R294  A11371-6821 6.8K 0.10W 5% CHIP 8 R5 R136.R194.R236.R294  A11371-8201 82 OHM 0.10W 5% CHIP 8 R5 R129.R141.R195.R229.R241.R295  A11371-8010 WIRE. 16 R6D FAST X 5 X TERM 1 WP3  A11427-103K2 0.01WF 50V 10% CHIP 0805 6 C109.C111.C115,C209.C211.C215  A11427-104K2 0.01WF 50V 10% WRR 8 R085 2 C142.C216.C127.C128.C129.  A11427-123K2 0.01WF 50V 10% WRR 8 R085 2 C122.C126.C227.C226.C229.C231.C233.C139.  A11427-472K2 770PF 50V 10% CHIP 0805 2 C117.C217  A11427-472K2 770PF 50V 10% CHIP 0805 4 C116.C119.C216.C219.  C2851-1 1N4004 SILICON RECT. 7 DI.D2.D3.D4.D8.D7.D10  C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100.L101.L200.L201  C 3510-2 CHOKE	A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19			
R414	A11371-3333	33K Ø.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243			
A11371-3933	A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,			
A11371-3934 39K OHM Ø.50W 5% CHIP 1210 4 R317.R318,R417,R418 A11371-4701 47 OHM Ø.10W 5% CHIP 2 R162.R262 A11371-5615 560 OHM 1W 5% C512 T/R 2 R32,R34 A11371-5636 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265 A11371-5863 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265 A11371-5865 5.6 OHM 1W 5% CHIP 2612 2 R420.R421 A11371-6814 680 OHM Ø.50W 5% CHIP 6 R105.R128,R181.R205.R228.R281 A11371-6821 6.6K Ø.10W 5% CHIP 8005 2 R127.R227 A11371-6821 6.6K Ø.10W 5% CHIP 8005 2 R127.R323 A11371-9201 750 OHM Ø.10W 5% CHIP 3 R20.R133.R233 A11371-9201 82 OHM Ø.10W 5% CHIP 6 R105.R194.R236.R294 A11371-9211 820 OHM Ø.10W 5% CHIP 6 R109.R141.R195.R229.R241.R295 A11379-Q800U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-Q800U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11477-103K5 Ø.01MF 50V 10% CHIP 8005 5 C109.C111.C115,C209.C211.C215 A11427-103K5 Ø.01UF 50V 10% ZRF SMD 1206 2 C143.C243 A11427-103K5 Ø.01UF 50V 10% ZRF SMD 1206 2 C143.C243 A11427-123K2 Ø.01W F5W 10% ZRF SMD 1206 2 C143.C24.C25.C28.C29. C222.C226.C227.C228.C227.C228.C29. C222.C226.C227.C228.C29.C29.C222.C226.C277.C228.C29.C29.C211.C215 A11427-472K2 7700PF 50V 10% CHIP 8005 2 C117.C217 A11427-472K2 7700PF 50V 10% XRR 0805 4 C117.C217 A11427-472K2 7700PF 50V 10% XRR 0805 4 C117.C217 A11427-472K2 7700PF 50V 10% XRR 0805 5 C117.C217 A11427-727K2 7700PF 50V 10% XRR 0805 7 D1.D2.C230.C231.C233.C233.C239 A11427-727K2 7700PF 50V 10% XRR 0805 7 D1.D2.C230.C231.C232.C233.C233.C239 A11427-727K2 7700PF 50V 10% XRR 0805 7 D1.D2.C230.C231.C232.C233.C233.C239 A11427-727K2 7700PF 50V 10% XRR 0805 7 D1.D2.C202.C26.C277.C228.C2				R414			
A11371-4701 47 OHM 0.10W 5% CHIP 2 R162.R262 A11371-5815 560 OHM 1W 5% 2512 T/R 2 R32.R34 A11371-5865 560 OHM 1W 5% CHIP 4 R150, R165, R250, R265 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R420.R421 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105, R128, R181, R205, R228, R281 A11371-6814 680 OHM 0.50W 5% CHIP 3 R28, R181, R205, R228, R281 A11371-7511 750 OHM 0.10W 5% CHIP 3 R28, R1813, R233 A11371-7511 750 OHM 0.10W 5% CHIP 3 R28, R1813, R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136, R194, R236, R294 A11371-8211 820 OHM 0.10W 5% CHIP 7 R136, R194, R236, R294 A11371-8211 820 OHM 0.10W 5% CHIP 8005 A11378-0450U WIRE, 16 RED FAST X 5 X TERM 1 WP3 A11427-183K5 0.01UF 50V 10% CHIP 8005 A11427-183K5 0.01UF 50V 10% X7R SMD 1206 A11427-184K2 0.1 MF 50V 10% 0805 C122, C126, C127, C128, C129, C130, C131, C132, C133, C139, C134, C143,	A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235			
A11371-5615 550 OHM 1W 5% 2512 T/R 4 R150,R165,R250,R265 A11371-5R65 5.6 0.25W 5% CHIP 4 R150,R165,R250,R265 A11371-5R65 5.6 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6821 6.8K 0.10W 5% CHIP 0806 2 R127,R227 A11371-8211 750 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8211 820 OHM 0.10W 5% CHIP 6 R125,R141,R195,R229,R241,R295 A11371-8201 82 OHM 0.10W 5% CHIP 7 R129,R141,R195,R229,R241,R295 A11371-8201 WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11371-8200 WIRE. 16 RED FAST X 5 X TERM 1 WP3 A11371-8250 WIRE. 16 RED FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 8805 6 C109,C111,C115,C209,C211,C215 A11427-103K2 0.01MF 50V 10% R805 2 C143,C243 A11427-104K2 8.1 MF 50V 10% 8805 2 C143,C243 A11427-123K2 0.012 MF 50V 10% CHIP 2 C122,C126,C127,C126,C129,C129,C134,C124,C25,C26,C29,C234,C25,C26,C29,C234,C25,C26,C27,C226,C229,C236,C237,C226,C229,C236,C237,C226,C229,C236,C237,C226,C229,C236,C237,C236,C239,C231,C332,C339,C336,C331,C332,C339,C336,C331,C332,C333,C339,C336,C331,C332,C333,C339,C334,C332,C333,C339,C334,C332,C334,C332,C334,C332,C333,C339,C334,C332,C333,C334,C332,	A11371~3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418			
A11371-5R63	A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262			
A11371-5R65	A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34			
A11371-6814 688 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6821 6.8K 0.18W 5% CHIP 0805 2 R127,R227 A11371-7511 758 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8211 820 OHM 0.10W 5% CHIP 5 R129,R141,R195,R229,R241,R295 A11378-A050U WIRE, 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE, 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K5 0.01MF 50V 10% CHIP 0805 6 C109,C111,C115,C209,C211,C215 A11427-103K5 0.01MF 50V 10% X7R SMD 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 27 C6,C7,C12,C24,C25,C28,C29,C227,C226,C227,C226,C227,C226,C227,C226,C229,C231,C232,C233,C239 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212 A11427-272K2 2700F 50V 10% CHIP 2 C112,C212 A11427-472K2 4700F 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4804 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 D1ODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 39L 50V 20% VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 7091-9 0.33 MF 50V VERT 2 C102,C240 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240	A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265			
A11371-6821	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420.R421			
A11371-7511 750 OHM 0.10W 5% CHIP 3 R28.R133.R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136.R194.R236.R294 A11371-8211 820 OHM 0.10W 5% CHIP 5 R129.R141.R195.R229.R241.R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP3 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109.C111.C115,C209.C211.C215 A11427-103K5 0.01UF 50V 10% X7R SMD 1206 2 C143.C243 A11427-104K2 0.1 MF 50V 10% 0805 27 C6,C7.C12,C24.C25,C28.C29. C122.C126,C127.C128.C129. C130.C131.C132.C133.C139. C222.C226.C227.C228.C229. C130.C231.C232.C233.C239 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112.C212 A11427-272K2 2700PF 50V 10% CHIP 2 C112.C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116.C119.C216.C219 C 2051-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10 C 3510-2 CHOKE. 470UH 10% AXIAL 4 L100.L101.L200.L201 C 3549-0 DIODE ZENER. 10V. 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4.C5 C 5096-0 NEG. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140.C240 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140.C240	A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281			
A11371-8201 82 OHM 8.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11371-8211 828 OHM 8.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11378-A050U WIRE, 16 RED FAST X 5 X TERM 1 WP3 A11379-C050U WIRE, 16 BEU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109,C111,C115,C209,C211,C215 A11427-103K5 0.01UF 50V 10% X7R SMD 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 27 C6,C7,C12,C24,C25,C28,C29, C122,C126,C127,C128,C129, C130,C131,C132,C133,C139, C222,C226,C227,C228,C229, C230,C231,C232,C233,C239 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C12 A11427-472K2 2700PF 50V 10% X7R 0805 2 C112,C212 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 D1ODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5096-0 NEG, 15 VOLT REG. 1 U1 C 5096-0 NEG, 15 VOLT REG. 1 U2 C 5096-0 NEG, 15 VOLT REG. 1 U2 C 7091-9 0.33 MF 50V CHIP 1208 3 C22,C140,C240 C 7035-1 2P 2 POS, PC SLIDE SW. 1 52	A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227			
A11371-8211 828 DHM 0.10W 5% CHIP 6 8129.8141.8195.8229.8241.8295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0005 6 C1099.C111.C115,C209,C211.C215 A11427-103K5 0.01UF 50V 10% X7R SMD 1206 2 C143.C243 A11427-104K2 0.1 MF 50V 10% 0005 27 C6,C7,C12,C24,C25,C29,C29,  A11427-124K2 0.1 MF 50V 10% 0005 27 C122,C126,C127,C128,C129,C129,C122,C126,C127,C128,C129,C129,C122,C126,C127,C128,C129,C129,C122,C126,C127,C128,C129,C129,C122,C126,C127,C128,C129,C129,C124,C129,C129,C129,C129,C129,C129,C129,C129	A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233			
A11378-A850U WIRE. 15 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 15 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109,C111.C115,C209,C211,C215 A11427-103K5 0.01MF 50V 10% X7R SMD 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 27 C6,C7,C12,C24,C25,C28,C29,C11,C12,C12,C126,C127,C128,C129,C130,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C131,C132,C133,C139,C132,C233,C233,C239,C131,C232,C233,C233,C239,C141427-272K2 2700FF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700FF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2651-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 D1ODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5096-0 A47 MF 50V XX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240	A11371-8201	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294			
A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 6 C109,C111,C115,C209,C211,C215 A11427-103K5 0.01UF 50V 10% X7R SMD 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 27 C6,C7,C12,C24,C25,C28,C29, C122,C126,C127,C128,C129, C130,C131,C132,C133,C139, C222,C226,C227,C226,C227, C230,C231,C232,C233,C239 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212 A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2951-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 D1ODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5096-0 A47 MF 50V VERT 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2	A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295			
A11427-103K2	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1			
A11427-103K5	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3			
A11427-104K2	A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109,C111,C115,C209,C211,C215			
C122,C126,C127,C128,C129, C130,C131,C132,C133,C139, C222,C226,C227,C228,C229, C230,C231,C232,C233,C239  A11427-123K2	A11427-103K5	0.01UF 50V 10% X7R SMD 1206	2	C143, C243			
C130.C131.C132.C133.C139. C222.C226.C227.C228.C229. C230.C231.C232.C233.C239  A11427-123K2	A11427-104K2	0.1 MF 50 <u>V 10%</u> 0805	27	C6,C7,C12,C24,C25,C28,C29.			
C222.C226.C227,C228.C229.  C230.C231.C232,C233.C239  A11427-123K2				C122,C126,C127,C128,C129,			
C230,C231,C232,C233,C239  A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219  C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10  C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201  C 3549-0 DIODE ZENER, 10V, 1N5240B 1 D8  C 3679-5 33UF 50V 20% VERT ELECT 1 C31  C 4477-3 470 MF 35V VERT 2 C4.C5  C 5095-2 POS. 15 VOLT REG. 1 U1  C 5096-0 NEG. 15 VOLT REG. 1 U2  C 5362-6 2.2 MF 50V VERT 1 C27  C 6802-0 .47 MF 50V AX CERM 2 C102,C202  C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240  C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2				C130, C131, C132, C133, C139,			
A11427-123K2				C222, C226, C227, C228, C229.			
A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117.C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 DIODE ZENER, 10V, 1N52408 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102,C202 C 7031-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2				C230, C231, C23 <u>2, C233, C239</u>			
A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216.C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10 C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 DIODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5086-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2				<u> </u>			
C 2851-1	A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217			
C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201 C 3549-0 DIODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5086-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2	· · · · · · · · · · · · · · · · · · ·		4	C116,C119,C216,C219			
C 3549-0 DIODE ZENER, 10V, 1N5240B 1 D8 C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4,C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 47 MF 50V AX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2		1N4004 SILICON RECT.	7				
C 3679-5 33UF 50V 20% VERT ELECT 1 C31 C 4477-3 470 MF 35V VERT 2 C4.C5 C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2			4_	L100, L101, L200, L201			
C 4477-3			1	D8			
C 5095-2 POS. 15 VOLT REG. 1 U1 C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102, C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22, C140, C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2			1				
C 5096-0 NEG. 15 VOLT REG. 1 U2 C 5362-6 2.2 MF 50V VERT 1 C27 C 6802-0 .47 MF 50V AX CERM 2 C102.C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22.C140.C240 C 7325-1 2P 2 POS. PC SLIDE SW. 1 S2			2	C4,C5			
C 5362-6       2.2 MF 50V VERT       1 C27         C 6802-0       .47 MF 50V AX CERM       2 C102,C202         C 7091-9       0.33 MF 50V CHIP 1206       3 C22,C140.C240         C 7325-1       2P 2 POS. PC SLIDE SW.       1 S2	<del></del>		1				
C 6802-0 .47 MF 50V AX CERM 2 C102,C202 C 7091-9 0.33 MF 50V CHIP 1206 3 C22,C140,C240 C 7325-1 2P 2 PO5. PC SLIDE SW. 1 S2			1				
C 7091-9			1				
C 7325-1 ZP 2 POS. PC SLIDE SW. 1 S2			2_				
		-	3				
C 7448-1 MMBT3904 CHIP NPN 6 Q100.Q101.Q129,Q200,Q201,Q229			1	52			
	C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229			
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DRAWN KLW 09/10/95 DWG. NO. PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 PHONE (219) 294-8000 3 DWG. NO. SHEET 3 OF 19 RE



· <del>"</del>	PARTS LIST				
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION		
C 8262-5	MC3307BD DUAL LO NOISE OP AM	4	U4,U5,U105,U205		
C 8576-8	100 MF 35V 10% ELEC	1	C26		
C 9012-3	MC33079D QUAD LO NOISE DP AM	2	U101, U201		
C 9038-8	COMPARATOR, QUAD LM339D SQ-1	4	U102, U104, U202, U204		
C 9157-8	100UF 16V 20% NP ELEC RAD T/	2	C123, C223		
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,0204		
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9.D13.D101.D102.D103.D104.		
			D105.D106.D107.D108.D109.		
			D110.D111,D112,D113,D116,		
			D117, D118, D119, D120, D121,		
			D122, D123, D124, D125, D126,		
			D127.D128,D129.D130,D201.		
	-		D202, D203, D204. D205, D206.		
-			D207, D208, D209, D210, D211,		
	<u></u>		D212, D213, D216, D217, D218,		
			D221.D222.D223.D224.D225.		
			D226.D227.D228.D229.D230		
C 9896-9	TEST POINT LOOP	2	TP38.TP39		
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1 X, U2 X		
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102.Q109.Q111.Q202.Q209.Q211		
C10196-1	2.2MF 50V 20% RAD T/R	4	C121.C124,C221.C224		
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205		
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215		
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234		
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21		
101016-1	LBL, BARCODE, , ,	1	2		
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7		
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4		
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2		
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5		
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1		
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235		
102438-560K2	56PF 200V 10% NPO 0805	2	C106,C206		
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238		
102465-1	.47UF 50V 20% RADIAL T/R	2	C101, C201		
102486-1	10UF 250V 20% RADIAL T/R	1	C1		
102467-1	22MF 25V 20% RAD T/R	2	C103, C203		
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214		
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202		
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3		
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200		
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201		
102477-1	LED, SMT R/A RED	4	E100,E102.E200,E202		
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132.Q232		
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3		
102480-1	FET, N-CH 25V 50MA SOT-23	2	0133,0233		
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108, Q208		
102701	, 1. 251 20% HOTSE 30, 23		9,55,0255		
			-		
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 48517
 PHONE (219) 294-8000

 DRAWN
 KLW 09/10/99
 DWG. NO.
 SHEET 4 DF 19
 RE
 PROJ. мрзэара



<del>-</del>	PARTS LIS	Т	-
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-B CTR -100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102569-3	HS ASM, TI ISOLATED CHI	1	HS3
102570-3	HS ASM, T1 ISOLATED CH2	1	HS4
102571-3	HS ASM, T1 NON-ISOLATED CH1,	1	HS1
102572-3	HS ASM, T1 NON-ISOLATED CH2,	1	HS2
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100, R200
102608-1	SPACER, 6X.187 LONG ALUMINUM	В	HW1, HW2, HW3, HW4, HW5, HW6, HW7,
			HWB
102723-2	OPTO CELL ON-500 OHM	2	U100.U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	0105,0120,0205,0220
103199-1	Ø.4 DHM 1W 5% 2512 T/R	38	R1, R7, R152, R153, R156, R157,
			R159, R167, R168, R171, R172,
			R252, R253, R256, R257, R259,
	<del>-</del>		R267, R268, R271, R272, R300,
			R301,R302,R305,R306,R307.
	<del></del>		R308, R311, R312, R400, R401.
<u> </u>			R402, R405, R406, R407, R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01MF 100V 10% X7R 0805 5MD	1	C2
125106-1	MAC9D B AMP 400V TRIAC	2	0131,0231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142, R242
125482-1	ADHESIVE LOCTITE 384 CUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	Ø	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100.K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4
	PREP, CE HI-V WIRE	1	WP6
127442-1	SENSOR, CE THERMAL	2	U106,U206
127683-1	SENSOR, CE THERMAL		0106,0208
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DRAWN	KL W	09/10/99	DWG.	NO.
1089	MD	ROBEE		

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 5 OF 19 REV 127321-2



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J B
C2	103418-103K2	.01MF 100V 10% X7R 0805 SMD	F 9*
C3	125508-1	100F 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	Ġ 9
C6	A11427-104K2	Ø.1 MF 50V 10% Ø805	H 10*
C7	A1 1427-104K2	0.1 MF 50V 10% 0005	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0.9*
C26	C 8576~8	100 MF 35V 10% ELEC	19
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 50V AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104	102438-101K2	100PF 200V 10% NPO 0805	₩ 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C1Ø9	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
□111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	ΝВ
C114	102468-1	47UF 10V 20% NP RAD T/R	NΒ
C115	A11427-103K2	.01 UF 50V 10% X7R MLC 0805	N B*
C115	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	Ø.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427~104K2	0.1 MF 50V 10% 0805	M 10*
C129	_	0.1 MF 50V 10% 0805	м 9*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 284-8000 KLW 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 6 OF 19 REV 127321-2



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	Ø.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205		100 MF 25V 20% VERT ELEC	J 8
C2Ø6		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208	102430-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	Н 3*
C21Ø	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L B*
C213	102468-1	47UF 10V 20% NP RAD T/R	КВ
C214	102468-1	47UF 10V 20% NP RAD T/R	ΚВ
C215	A11427-103K2	.01 UF 50V 10% X7R MLC 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E B
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	Ø.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233		Ø 1 MF 50V 10% 0805	D 8*
	INACT		

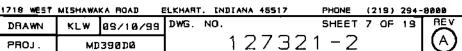
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KLW 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 7 OF 19



•		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	· ·	100PF 200V 10% NPC 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102439-820K2	82PF 200V 10% NPO 0805	J 7*
C239		0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C243	<del></del>	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
DЭ	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J B
DB	C 3549-0	DIODE ZENER, 10V, 1N5240B	7 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D1@1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	N 8*
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	ΙБ
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D121	C 9263-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м э*
D123	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	G 7*
D125	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
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1718 WEST MISHAWAKA ROAD KLW 09/10/99 DWG. NO. DRAWN

MD390D0 PROJ.

ELKMART, INDIANA 46517 PHONE (218) 294-8000 g DWG. NO. SHEET 8 OF 19 RE 127321-2



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D127	C 9283-Ø	DIODE. 1N914/1N4148 SDT-23 SMT	мв
D1 28	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-Ø	DIQDE, 1N914/1N4148 SDT-23 SMT	м 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-Ø	DIDDE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	1 3
	<del> </del>	DIODE, 3A 400V 1N5404 AXIAL	I 2
D215	C10422-1 C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	+
D216	<del> </del>		E 8*
D217	C 9283-0	DIBDE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9293-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIGDE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	K B
D228	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED. SMT R/A RED	K 1
E200	102477-1	LED. SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H1 4		OPEN	B I
H18		OPEN	D 8
HS1	102571-3	HS ASM. T1 NON-ISOLATED CH1.	-
H52	102572-3	HS ASM, T1 NON-ISOLATED CH2,	1
нѕз	102569-3	HS ASM, T1 ISOLATED CH1, , .	
HS4	102570-3	HS ASM, T1 ISOLATED CH2, , ,	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8088

DRAWN KLW 09/18/99 DWG. NO. SHEET 9 CF 19 RE KLW 09/10/99 DWG. NO. DRAWN мдзэйдй PROJ.



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
нwэ	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	8 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	NБ
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 B	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	5-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	8 4
HW23	A11056-1		
	<del></del>	5-32 HEX NUT W/BELLEVILLE	8 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	<u> </u>
J3	102472-3	HDR. 16POS .100 CTR SGL ROW	M 8
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	5.45
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PC8 W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
03	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1	MMBT3904 CHIP NPN	м 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
0105	103193-1	PNP 300V 500MA 50MHZ SDT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT~223	м 7*
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517 PHONE (218) 294-8000
DRAWN KLW 09/10/99 DWG. NO. SHEET 10 DF 19 REV KLW 09/10/99 DWG. NO. PROJ. MD390D2



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
Q110	103192-1	NPN 300V 500MA 50MHZ 50T-223	N 7*
Q111	C 9931~4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
0133	102480-1	FET, N-CH 25V 50MA SOT-23	м 9*
0200	C 7448-1	MMBT3904 CHIP NPN	К 9*
Q2Ø1	C 744B-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5007LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q2Ø4	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q2Ø5	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	к в*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MACSD 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS BV THRESH	F B
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J B*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM 0.10W 1% CHIP 0805	D B*
R6		9.31K 0.1W 1% CHIP 0805	D 8*
87	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
RB	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9		10K 1/10W 1% CHIP 0805	н 9*
R10		20K 0.25W 1% CHIP 1210	Н 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121		I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	.220HM .1W 5% 0805 SMT	I 10*
R15	A11371-R221	.220HM .1W 5% 0805 SMT	I 10*
R16	A11371-11221	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	B.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-82511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21		12.1K OHM 0.10W 1% CHIP 0805	J 8*
R22	A11368-12121		I 9*
1722	A11300-38231	אוושת וא רעור מפמם	1 3"
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888 DESAUAN | VI W | 00/10/20 | DWG. NO. SHEET 11 OF 19 | RE KLW 09/10/99 DWG. NO. DRAWN MD39@D@ PROJ.

SHEET 11 OF 19 127321-2



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R23		392K 0.10W 1% CHIP 0805	I 9*
R24		57.6K 0.10W 1% CHIP 0805	1 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0B05	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31		100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	) 8
R33	A11371-R221	.220HM .1W 5% 0805 SMT	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	
R101		1K 0.10W 1% CHIP 0805	<u>— — — — — — — — — — — — — — — — — — — </u>
R102	···-	392K Ø.10W 1% CHIP 0805	N 9*
R103		499 OHM Ø.10W 1% CHIP 0805	N 9*
R104		10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106		1K 0.10W 1% CHIP 0805	M 9*
R107		10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	м 9*
R110		1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K 0.25W 1% MP	L 9
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	· · · · · · · · · · · · · · · · · · ·	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121		L 10*
R116		226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118		6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
B120	<del></del>	90.9K 0.10W 1% CHIP 0805	M 9*
R121	<del>· ···· · · · · · · · · · · · · · · · ·</del>	10K 1/10W 1% CHIP 0805	M 10
R122		158K 0.10W 1% CHIP 0805	N 9*
R123		100K 0.1W 1% CHIP 0805	M 9*
R123	<del></del>	158K Ø.10W 1% CHIP 0805	M 9*
R1 25	<del>, , ,</del>	100K 0.1W 1% CHIP 0805	N 9*
R126	<del>-</del>	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R129	MI 13/1-0211	OPEN	0 8*
R130		OPEN	08*
R131	A 1 1 2 7 1 - 2 2 2 2		H 6*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
<del></del>	<del></del>		<del>                                     </del>
		<del></del>	
		<u> </u>	<u> </u>

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 48517
 PHONE (219) 294-8800

 DRAWN
 KLW 09/10/99
 DWG. NO.
 SHEET 12 OF 19
 REV
 PROJ. **MD390D0** 



_		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
R137	A11368-49902	499 OHM .125W 1% 1206 T/R	N 8*
R138	A11371-1213	120 DHM 0.25W 5% CHIP	N B*
R139	A11368-13703	137 DHM 0.25W 1% CHIP	N B*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0.8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N B*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
B147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	м 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	1 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
A161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
F172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	G 8*
R175		5.11K DHM 0.10W 1% CHIP 0805	G 8*
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	н в*
R178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180		392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 8*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185		10K 1/10W 1% CHIP 0805	G 8*
R186		100K 0.1W 1% CHIP 0805	N 10*
R187		158K 0.10W 1% CHIP 0805	M 10*
R188		158K Ø.10W 1% CHIP 0005	N 10*
R189		100K 0.1W 1% CHIP 0805	M 10*
R190		57.6K 0.10W 1% CHIP 0805	N 6*
,,,,,,,,	A11300 37021	DESCRIPTION OF BUILD DUBG	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 45517 PHONE (219) 294-8088
DRAWN KLW 29/10/99 DWG, NO. SHEET 13 OF 19 RE мрээара PROJ.



REF DES	C. P. N.	DESCRIPTION PARTS LIST	MAP LOC.
R191		226 OHM 0.10W 1% CHIP 0805	N 6*
R192		604K OHM 0.125W 1% CHIP 1206	L 9*
R193		10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	<u> </u>	м 9*
R197	A11368-51111		M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N B*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201		1K 0.10W 1% CHIP 0805	K 10*
R202	•	392K 0.10W 1% CHIP 0805	L 9*
R203		499 OHM 0.10W 1% CHIP 0805	L 9*
R2Ø4		10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-8814		M 1*
R206		1K 0.10W 1% CHIP 0805	J 9*
7209		19.1K 0.125W 1% CHIP 1206	K 9*
R210		1K 0.10W 1% CHIP 0805	<u>, 9*</u>
R211		10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K 0.25W 1% MF	J 9
7213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
7214		8.25K 0.1W 1% CHIP 0805	J 10*
7215		68.1K 0.10W 1% CHIP	J 10*
R216		226 DHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	
R218		6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	<del> </del>	90.8K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K Ø.10W 1% CHIP Ø805	K 9*
R225		100K 0.1W 1% CHIP 0005	L 9*
R226	A11368-49921		K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-8814	680 OHM 0.50W 5% CHIP	M 1 *
R229	A11371-8814	820 OHM 0.10W 5% CHIP	K 7*
R230	ATTO/T UZIT	OPEN	L 7*
R236	<del>-</del> .	OPEN	L 7*
R231	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R232	A11371-2223	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R234 R235		3.9K 0.25W 5% CHIP	J 7*
	A11371-3923 A11371-8201	82 OHM 0.10W 5% CHIP	J /*
R236			
R237	A11368-49902		K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	K11368-13/03	137 OHM 0.25W 1% CHIP	K 8*
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#### INC. INTERNATIONAL CROWN

 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 DRAWN
 KLW
 89/18/99
 DWG. NO.
 SHEET 14 OF 19
 RE

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PROJ. MD390D0

	PARTS LIST						
AEF DES	C. P. N.	DESCRIPTION	MAP LOC.				
R240	A11371~3333	33K Ø.25W 5% CHIP 1210	K 7*				
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*				
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*				
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*				
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*				
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*				
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*				
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*				
R248	A11371~1811	180 OHM 0.10W 5% CHIP	K 2*				
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*				
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*				
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*				
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*				
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*				
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*				
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*				
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*				
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*				
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*				
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*				
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*				
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*				
R271	103199-1	0.4 DHM 1W 5% 2512 T/R	H 4*				
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н з*				
R274		604K OHM 0.125W 1% CHIP 1206	E 8*				
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*				
R276		10K 1/10W 1% CHIP 0805	E 8*				
R277		10K 1/10W 1% CHIP 0805	E 8*				
R278		90.9K 0.10W 1% CHIP 0805	L 9*				
R279		100K 0.1W 1% CHIP 0805	E 7*				
R280		392K 0.10W 1% CHIP 0805	E 8*				
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*				
R282		10K 1/10W 1% CHIP 0805	D 8*				
R283		100K 0.1W 1% CHIP 0805	E 9*				
R284		20K 0.25W 1% CHIP 1210	F 9*				
F1285		10K 1/10W 1% CHIP 0805	F B*				
R286		100K 0.1W 1% CHIP 0805	L 10*				
R287		158K 0.10W 1% CHIP 0805	K 10*				
R288		158K 0.10W 1% CHIP 0805	K 10*				
R289		100K 0.1W 1% CHIP 0805	K 10*				
R29Ø	A11368-57621		N 3*				
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*				
R292	<del> </del>	504K DHM 0.125W 1% CHIP 1206	1 9*				
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*				
R294	A11371-8201	82 OHM Ø.10W 5% CHIP	J 7*				
R295	A11371-8201	820 OHM 0.10W 5% CHIP	J 7*				
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*				
13230	ATT300-10021	ואר ייו אווי ועי רעזר מפמס	, ,				
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE 12191 294-8000
DRAWN KLW 09/10/99 DWG. NO. SHEET 15 OF 19 RE PROJ. MD390D0



PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.		
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10		
R298		OPEN	K 10		
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 🗎*		
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*		
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*		
H3@2	103199-1	0.4 DHM 1W 5% 2512 T/R	K 5*		
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*		
A306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*		
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*		
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*		
R311	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*		
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*		
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*		
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*		
R315	A11368-51111	5.11K DHM 0.10W 1% CHIP 0805	H 7*		
R316		1K 0.10W 1% CHIP 0805	M 10*		
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8		
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8		
R319		OPEN	M 10*		
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9		
R323	A11371-0R02	Ø.0 OHM JUMPER CHIP 1206	G 8		
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	р э*		
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	4 4 ا		
R402	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 3*		
R405	103199~1	Ø.4 OHM 1W 5% 2512 T/R	M 4*		
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*		
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*		
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*		
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*		
R412	103199-1	Ø.4 OHM 1W 5% 2512 T/R	I 3*		
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*		
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*		
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*		
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*		
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7		
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8		
R419		OPEN	K 10*		
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*		
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*		
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9		
R423	A11371-0R02	0.8 OHM JUMPER CHIP 1206	F 8		
S1	102488-1	SPDT HORIZ SLIDE	L 10		
52	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10		
TP38	C 9896-9	TEST POINT LOOP	K 1		
TP39	C 9896-9	TEST POINT LOOP	N 7		
U1	C 5095-2	POS, 15 VOLT REG.	H 10		
U1 X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10		
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PROJ. MD390D0

 
 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 DRAWN
 KLW 09/10/99
 DWG. NO.
 SHEET 16 OF 19 RE
 127321-2



PARTS LIST						
REF DES	C.P.N.	DESCRIPTION	MAP	LOC.	$\neg \neg$	
U2	C 5096-0	NEG. 15 VOLT REG.		Н 9		
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		Н 9		
U3	102486-1	OPTO BJT NPN SQIC-8 CTR =100%		N 10		
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP		I 9		
US	C 8262-5	MC33078D DUAL LO NOISE OP AMP		N 9	$\overline{}$	
U100	102723-2	OPTO CELL ON-500 OHM		м 9	$\neg \neg$	
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP		м 10	$\neg \neg$	
U102	C 9038-8	COMPARATOR, QUAD LM339D 50-14		N 9	$\neg$	
U1@4	C 9038-8	COMPARATOR, QUAD LM339D SO-14		G 7	$\neg \neg$	
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	†	F 7		
U106	127683-1	SENSOR, CE THERMAL	<u> </u>	N 6	$\neg \neg$	
U200	102723-2	OPTO CELL ON-500 OHM	<del>                                     </del>	к 9		
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	<del>                                     </del>	J 10	$\overline{}$	
⊔202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	<del>                                      </del>	K 9		
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	<del>                                     </del>	E 7	$\neg \neg$	
U205	C 8262-5	MC33078D DUAL LO NOISE OF AMP	╁	E 7		
U206	127683-1	SENSOR, CE THERMAL	<del>                                     </del>	N 3	-	
WP1		WIRE, 16 RED FAST X 5 X TERM	$\vdash$	A 10		
WP2		WIRE, 16 BLK/WHT TAB X 5 X T	$\vdash$	A 9		
WP3		WIRE, 16 BLU FAST X 5 X TERM	+	A 9		
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	<del>                                     </del>	D 7		
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	┼──	D 4		
WP6		PREP. CE HI-V WIRE	┼	J B	$\overline{}$	
WP7	127442-1	.250 FASTON. AUTO INSERTABLE	$\vdash$	DВ	<del></del>	
	101031-1	OPEN AUTO INSERTABLE	╀──	E 9		
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	ecc	COMP	MAR	
2	101016-1	LBL. BARCODE,	+	COMP		
3	125242-1	CAP, .625ID X 1" VINYL	+	COMP		
4	126825-1	SILICONE, CLEAR BOZ SYRINGE		COMP		
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	_	COMP		
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	_	COMP		
7	103180-1	BUMPER, Ø.4" TALL BLK W/ADH	<del></del>		_	
<del> </del>	163106-1	BOMPER, U. 4 TALL BLK WADA	355	COMP	MAP	
			$\vdash$			
			├──			
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 DRAWN
 KLW Ø9/10/99
 DWG. NO.
 SHEET 17 OF 19
 RE

**BGBEEG**M

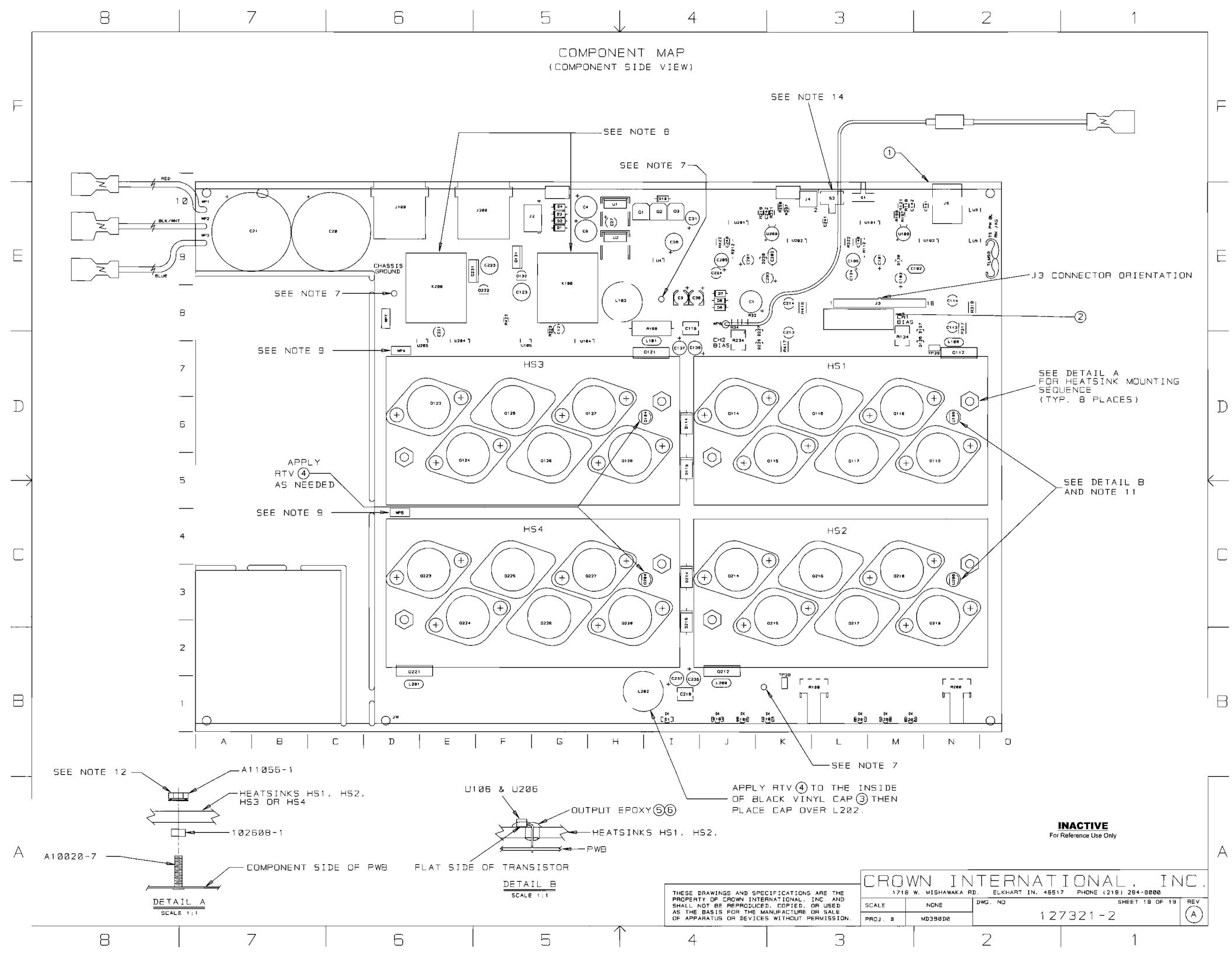
PROJ.

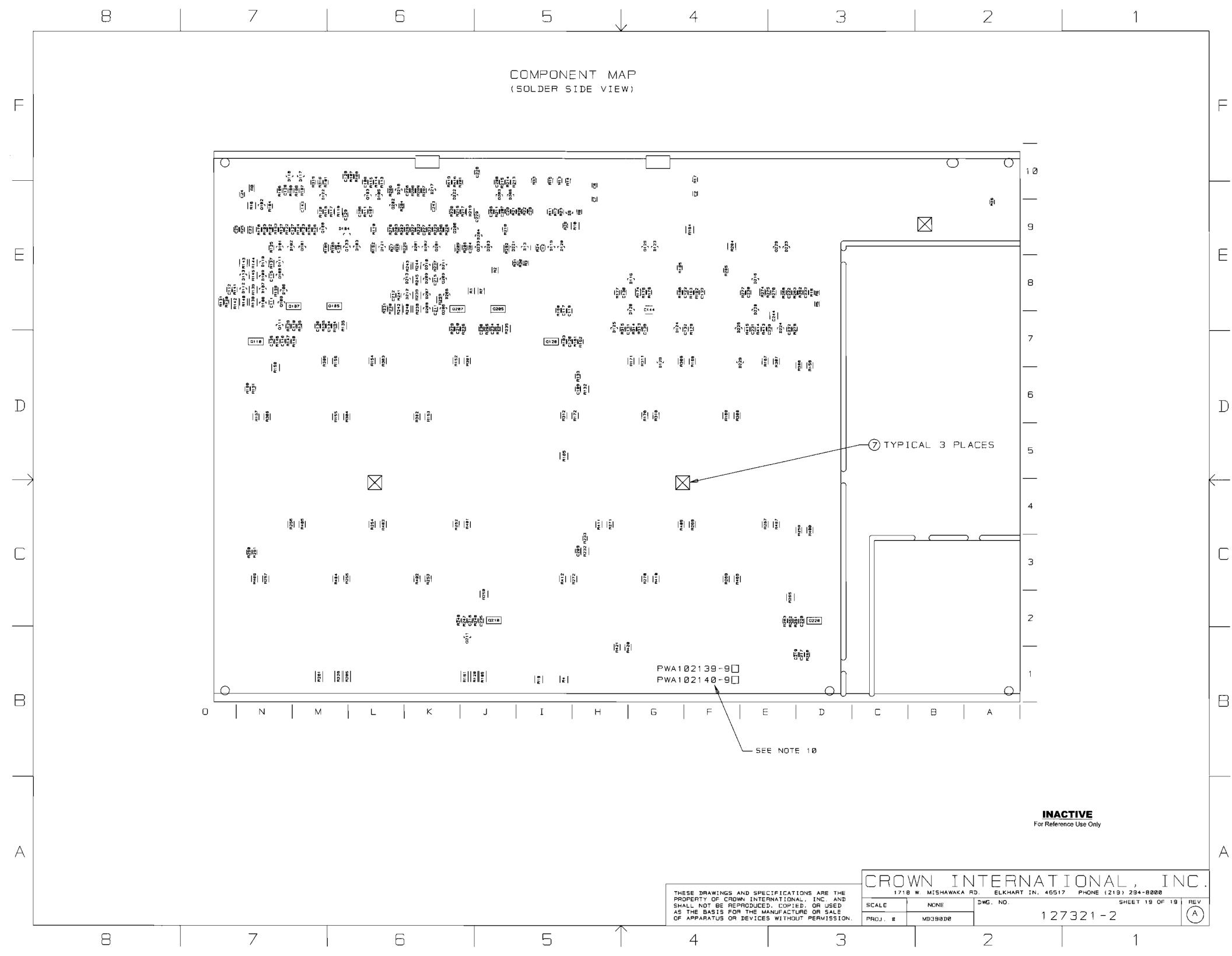




# **Component Map**

for use with Main PWA 127321-2





	€.€.	ZONE	REV.	DESCRIPTION	DATE	BY	CHK C	PROVAL	_S   P <u>6</u> -	-
			A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	02-23-99	JAW	HI	,D	12	₹
-		_		<del></del>	1		_	-		

#### NOTE5:

- SCHEMATIC DRAWING NUMBER 102142. 1.
- 2. PWB PART NUMBER 102138-9.
- THE PWA SHALL MEET THE IPC+A-610\_ CLASS 2 STANDARDS. 3.
- ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS. 4
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- COMPONENTS THAT HAVE ( \*) AFTER THEIR MAP LOCATION 6. ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- THE VENT HOLE ON TOP OF THE RELAYS KIDD AND KZDD MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
- 11. INSTALLATION OF U105 AND U206 IS AS FOLLOWS:
  - 11A. RÉMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE THANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A, PRE-WAVE TORQUE OF 4-6 INCH LBS.
- 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS. 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL R32X AS FOLLOWS:

BEND THE RESISTOR LEADS AT 90 DEGREES TO THE BODY. PLACE RBZX WITH THE ELEMENT AWAY FROM C1. SOLDER R32X LEADS TO R32 AND R34 PADS SMD STYLE. SEE DETAIL C FOR CLARITY.

15. INSTALL S2 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 20 COMPONENT MAP FOR CLARITY.



#### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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		С	ROV	1I NV	٧T	ĒF	TAMF	IONA	AL INC.	.	
PRINTS	3 TO	1718 WEST	MISHAWA	KA ROAD	ELKH	ART.	INDIANA 459	517	PHONE (219) 294-	8000	
K		SERF F	PWA,	CE2K 1	021	40-	·6 & -B	TOL. UNLESS SPECIFIED X.XX - 2 8.828 X.XXX - 2 8.828 X.XXX - 2 8.818 DRILLS + 2 8.883			
<u> </u>		DRAWN	WAL	02-23-99	AI	PPRO	VED BY:	DO NOT SCALE PRINT			
		CHECKED	JUM .	3-4-99	ME	<b>CA</b> (	03-04-49	SUPERSED	265		
		SCALE	TALE NONE EE E.C.		· · ·						
		PROJ #	MD	390D0	PE	W.	3-9-99	DWG, NO.	SHEET 1 OF 21	REV	
	FILENAME		:127323-1_A.PCB		NEXT ASM:		127	'323-1	(4)		

PARTS LIST							
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14.				
			HW15, HW16				
A10265-19121	19.1K 0.25W 1% MF	2	R112.R212				
A10266-2R74	2.7 OHM 2W 5% CF	1	R158				
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218				
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,				
			HW22, HW23, HW24				
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R106, R110, R201, R206.				
		_	R210,R316,R416				
A11368-10021	10K 1/10W 1% CHIP 0805	23	R9.R104.R107.R108.R111.				
			R121.R176.R177.R182.R185.				
			R193, R195, R204, R211, R221,				
			R276.R277.R282.R285.R293,				
•			R296,R313,R413				
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,				
	_		R183, R186, R189, R223, R225.				
			R279, R283, R286, R289				
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R11B, R21B				
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239				
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21				
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237				
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,				
		<u> </u>	R224, R287, R288				
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209				
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27				
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10. R184, R284				
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116.R191,R216,R291				
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22,R23,R102,R180,R202,R280				
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103.R203				
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226				
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415				
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290				
A11368-60432	604K DHM 0.125W 1% CHIP 1206	4	R174, R192, R274, R292				
A11368-61911	6.19K Ø.1ØW 1% CHIP Ø8Ø5	2	R197, R297				
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215				
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5				
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145, R245				
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18				
A11368-B2511	8.25K 0.1W 1% CHIP 0805	3	R17, R114, R214				
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278				
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6				
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134.C234				
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207				
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142.C242				
A11369-471K2	470PF 50V 10% NPC 0805 T/R	4	C110, C141, C210, C241				
		Т <u>.                                    </u>					
	<u> </u>	<u> </u>	<u> </u>				

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# CROWN INTERNATIONAL INC.

PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (218) 284-8800
DRAWN JAW 02/23/99 DWG. NO. SHEET 2 OF 21 RE 127323-1



	PARTS LIST						
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423				
A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33				
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247				
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422				
A11371-1022	1K 0.125W 5% CHIP 1206	1	RB				
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138,R144,R238.R244				
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261				
A11371-1501	15 OHM 0.10W 5% CHIP	2	R160.R260				
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R153,R248,R253				
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232				
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2				
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19				
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243				
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11,R26.R117.R217,R314.				
			R414				
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R195,R295				
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418				
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162, R262				
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142.R242				
7(1   5) 1 1 2 1	7.7 (C S.I.I. S. D. C) - 57. 57. 24. 5		7 (1 ) ( Ser 2 ) ( Ser 1 ) ( Ser 2 )				
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265				
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421				
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281				
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127.R227				
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233				
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294				
71(1371 3231	02 01111 011011 01111	<u> </u>	1113571121711233711231				
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295				
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1				
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3				
A11427-103K2	Ø.01MF 50V 10% CHIP 0905	4	C109, C111, C209, C211				
A11427-103K5	Ø.01MF 50V 5% X7R 1206	2	C143,C243				
A11427-104K2	0.1 MF 50V 10% 0805	30	C2,C6,C7,C12,C24,C25,C28,C29,				
ATT TO TRE	0.1 W. 00 <u>1 101 </u>	30	C115,C122,C126,C127,C128,				
			C129,C130,C131,C132,C133,				
			C139.C215.C222.C226.C227,				
			C228.C229.C230.C231.C232.				
<u> </u>			C233, C239				
		<del>                                     </del>	0233,0233				
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212				
A11427-123K2	2700PF 50V 10% CHIP 0805	2	C117, C217				
A11427-272K2	4700PF 50V 10% CHIP 0005	4					
A17427-472K2 A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	C116.C119.C216.C219				
C 2851-1	1N4004 SILICON RECT.	7					
		<u> </u>	D1, D2, D3, D4, D6, D7, D10				
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201				
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	DB				
C 3679-5	33UF 50V 20% VERT ELECT	1 2	C31				
C 4477-3	470 MF 35V VERT	2	C4,C5				
		<u> </u>					

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 ISHAWAKA RDAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8088

 JAW 02/23/99
 DWG. NO.
 SHEET 3 OF 21 RE
 1710 WEST MISHAWAKA ADAD DRAWN MD390D0

PROJ.

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	PARTS LIS	т —	
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	Ш2
C 5362-6	2.2 MF 50V VERT	1	C27
C 5802-0	.47 MF 50V AX CERM	2	C102, C202
C 7091-9	0.33 MF 50V CHIP 1206	Э	C22, C140, C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52
C 744B-1	MMBT3904 CHIP NPN	6	0100.0101.0129.0200.0201.0229
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4.U5.U105.U205
C 8576-B	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	2	U101.U201
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102.U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	0104.0204
C 9283-0	DIODE, 1N914/1N414B SOT-23 S	56	D9. D13, D101, D102, D103, D104,
			D105, D106, D107, D108, D109.
			D110.D111,D112,D113,D116.
			D117, D118, D119, D120, D121,
	-		D122. D123. D124. D125. D126.
		_	D127, D128, D129, D130, D201,
			D202, D203, D204, D205, D206.
			D207.D208.D209.D210.D211.
	-		D212, D213, D216, D217, D218,
			D221, D222, D223, D224, D225.
	<del></del> -		D226, D227, D228, D229, D230
C 9856-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X
C 9931~4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102.0109.0111.0202.0209.0211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105.C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114.D115,D214.D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21
H42902-9	ASM, THERMAL SENSE	2	U106, U206
	- · · · · · · · · · · · · · · · · · · ·		
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J.4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	ງຣ
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
10243B-560K2	56PF 200V 10% NPD 0805	2	C106.C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238
102465-1	.47UF 50V 20% HADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	2	C103, C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102.L202
_			
102472-3	HDR. 16PGS .100 CTR SGL ROW	1	13
	CTIVE		<u> </u>

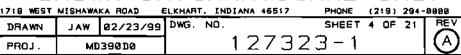
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JAW 02/23/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 4 OF 21 127323-1



PARTS LIST							
C.P.N.	DESCRIPTION	TY	REFERENCE DESIGNATION				
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200				
102476-1	LED, SMT R/A GREEN	n,	E1,E101,E201				
102477-1	LED, SMT R/A RED	4	E100.E102.E200.E202				
102478-1	TRIAC DRIVER S85 BV THRESH	2	0132,0232				
102479-1	PWR MJD112 NPN DARLINGTON 10	3	01.02.03				
102480-1	FET, N-CH Z5V 50MA SOT-23	2	Q133.Q233				
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q208				
102483~1	PNP 300V 500MA SOT-23	2	0103,0203				
102486-1	DPTO BJT NPN SOIC-8 CTR -100	1	UЗ				
102488-1	SPDT HORIZ SLIDE	1	51				
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	H53				
102574-3	HS ASM, TZ ISOLATED CH2, , ,	1	HS4				
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1				
102576-3	HS ASM, T2 NON-ISOLATED CH2.	1	HS2				
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1.HW2.HW3.HW4.HW5.HW6.HW7.				
			HWB				
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100,R200				
102723-2	OPTO CELL ON-500 OHM	2	U100,U200				
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7				
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244				
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	0107.0110.0207.0210				
103193-1	PNP 300V 500MA 50MHZ 50T-223	4	Q105.Q120,Q205,Q220				
103199-1	Ø.4 OHM 1W 5% 2512 T/R	54	R1.R7,R152,R153,R154,R155.				
		<del></del>	R156.R157.R159.R167.R168.				
			R169,R170,R171,R172,R252.				
			R253,R254,R255,R256,R257,				
		<del> </del>	R259, R267, R268, R269, R270,				
	<del></del>		R271,R272,R300,R301,R302,				
<del>-</del>	<del>-</del>		R303, R304, R305, R306, R307,				
			R308, R309, R310, R311, R312.				
<del></del>			R400, R401, R402, R403, R404,				
			R405,R406,R407,R408,R409,				
		<del> </del>	R410, R411, R412				
103210-1	2.2UF 160V RADIAL T/R		C136, C137, C236, C237				
		4					
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T MACSD B AMP 400V TRIAC	1	WP2				
125106-1		2	Q131,Q231				
125242-1	CAP, .625ID X 1" VINYL	1 2	3				
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5				
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6				
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30				
126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100,K200				
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4				
127229-1	RES. 1100 OHM 5W 5% THICK F	1_	R32X				
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JAW 02/23/99 DWG. NO. 1718 WEST MISHAWAKA ROAD DRAWN мрэвара

PROJ.

PHONE (219) 294-8888 SHEET 5 DF 21 REV 127323-1

PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8		
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*		
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8		
C4	€ 4477-3	470 MF 35V VERT	G 10		
C5	□ 4477-3	470 MF 35V VERT	6 9		
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*		
C7	A11427-104K2	0.1 MF 50V 10% 0805	н э*		
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*		
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9		
C21	D 8917~3	8200UF 110VDC ELECTROLYTIC	8 9		
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*		
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*		
C25	A11427-104K2	0.1 MF 50V 10% 0805	0 9*		
C26	C 8576-8	100 MF 35V 10% ELEC	I 9		
C27	C 5362-6	2.2 MF 50V VERT	H 10		
C28		0.1 MF 50V 10% 0805	J 9*		
C29		0.1 MF 50V 10% 0805	I 9*		
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	18		
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10		
C101	102455-1	.47UF 50V 20% RADIAL T/R	м 9		
C102	C 6802-0	.47 MF 50V AX CERM	M 9		
C103	102467-1	22MF 25V 20% RAD T/R	м 9		
C104		100PF 200V 10% NPO 0805	м 9*		
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9		
C106		56PF 200V 10% NPO 0805	L 9*		
C107		27PF 50V 10% NPO 0805 T/A	L 9*		
C108		82PF 200V 10% NPO 0805	L 10*		
C109		0.01MF 50V 10% CHIP 0805	H 6*		
C110		470PF 50V 10% NPO 0805 T/R	M 7*		
C111		0.01MF 50V 10% CHIP 0805	N 8*		
C112		0.012 MF 50V 10% CHIP	0.8*		
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8		
C114	102468-1	47UF 10V 20% NP RAD T/R	N B		
C115		0.1 MF 50V 10% 0805	N 8*		
C116		4700PF 50V 10% X7R 0805	N 7*		
C117		2700PF 50V 10% CHIP 0805	I 7*		
C118		Ø.1 MF 250V 5% MTL POLY	I 8		
C119		4700PF 50V 10% X7R 0805	1 7*		
C120		100PF 200V 10% NPO 0805	I 7*		
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8		
C122		0.1 MF 50V 10% 0805	F 6*		
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8		
C123	C1Ø196-1	2.2MF 50V 20% RAD T/R	L 9		
C126		0.1 MF 50V 10% 0805	N 10*		
C128		0.1 MF 58V 10% 8885	N 9*		
C128		0.1 MF 50V 10% 0805	N 9*		
C128		0.1 MF 50V 10% 0805	M 9*		
C123	ALITA/"(UTNZ		I M 5*		
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (218) 294-8888
DRAWN JAW 02/23/99 DWG. NO. SHEET 6 OF 21 RE JAW 02/23/99 DWG. NO. DRAWN PROJ. мрээфрф



PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
C130	A11427-104K2	0.1 MF 50V 10% 0805	н 8*		
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*		
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*		
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*		
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*		
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*		
C136	103210-1	2.2UF 160V RADIAL T/R	I 7		
C137	103210-1	2.2UF 160V RADIAL T/R	I 7		
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*		
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*		
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9		
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10		
£142		33PF 50V 5% NPO MLC 0805	M 12		
C143		0.01MF 50V 5% X7R 1206	м 9*		
C144	103191-1	Ø.47UF Z5U 1210 20% 50V	G 7*		
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9		
C202	C 6002-0	.47 MF 50V AX CERM	к 9		
C203	102467-1	22MF 25V 20% RAD T/R	К 9		
C204		100PF 200V 10% NPO 0805	J 9*		
C205		100 MF 25V 20% VERT ELEC	J 9		
C206		56PF 200V 10% NPO 0805	J 9*		
C207		27PF 50V 10% NPO 0805 T/R	18*		
C208		82PF 200V 10% NPO 0805	J 18#		
C209		0.01MF 50V 10% CHIP 0805	H 3*		
C210	· · · · · · · · · · · · · · · · · · ·	470PF 50V 10% NPO 0805 T/R	K 7*		
C211		0.01MF 50V 10% CHIP 0805	K 7*		
C212		0.012 MF 50V 10% CHIP	L e*		
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8		
C214	102468-1	47UF 10V 20% NP RAD T/R	K B		
C215		0.1 MF 50V 10% 0805	K 8*		
C216		4700PF 50V 10% X7R 0805	J 2*		
C217		2700PF 50V 10% CHIP 0805	D 1*		
C218		Ø.1 MF 250V 5% MTL POLY	I 1		
C219		4700PF 50V 10% X7R 0805	E 1*		
C220		100PF 200V 10% NPO 0805	D 2*		
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8		
C222		0.1 MF 50V 10% 0805	E 8*		
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9		
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9		
C226		0.1 MF 50V 10% 0805	K 10*		
C227		0.1 MF 50V 10% 0805	K 9*		
C228		0.1 MF 50V 10% 0805	J 10*		
C229		0.1 MF 50V 10% 0805	1 9*		
C230		8.1 MF 50V 10% 0805	E 8*		
C231	· · · · ·	0.1 MF 50V 10% 0805	E 7*		
C232		0.1 MF 50V 10% 0805	E 7*		
C233		0.1 MF 50V 10% 0805	D 8*		
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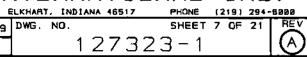
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JAW 22/23/99 DWG. NO. **NWAR** PROJ. MD39@D@

1718 WEST MISHAWAKA HOAD

SHEET 7 OF 21 127323-1



	PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.			
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*			
C235		100PF 200V 10% NPO 0805	J 2*			
C236	103210-1	2.2UF 160V RADIAL T/R	I 1			
C237	103210-1	2.2UF 160V RADIAL T/R	I 1			
C238	102438-820K2	82PF 200V 10% NPD 0805	j 7*			
C239		0.1 MF 50V 10% 0805	E 7*			
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	J 9			
C241		470PF 50V 10% NPO 0805 T/R	L 10			
C242		33PF 50V 5% NPO MLC 0805	K 10			
C243	<del> </del>	0.01MF 50V 5% X7R 1206	K 9*			
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*			
C244	103131 1	6.476, 236 (216 26% 36V				
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D1	C 2851~1	1N4004 SILICON RECT.	G 9			
D2	C 2851-1	1N4004 SILICON RECT.	G 10			
D3	C 2851-1	1N4004 SILICON RECT.	G 10			
D4	C 2851-1	1N4004 SILICON RECT.	G 10			
D6	C 2851-1	1N4004 SILICON RECT.	J 8			
D7	C 2851-1	1N4004 SILICON RECT.	J 8			
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8			
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*			
D1 0	C 2851-1	1N4004 SILICON RECT.	I 10			
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*			
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*			
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*			
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*			
D104	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	M 9*			
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*			
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*			
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8 *			
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*			

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DRAWN

PAOJ.

1718 WEST MISHAWAKA ROAD

JAW 02/23/99 DWG. NO.

PHONE (219) 294-8000 SHEET 8 OF 21 RE

MD390D0

REV

_		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	N 8*
D112	C 9283-0	DIODE. 1N914/1N4148 SDT-23 SMT	N B*
D113	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	15
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	N 10*
D119	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	м 9*
D123	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	м в
D128	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	G 6*
D130	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	В В
D201	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-Ø	DIQDE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE: 1N914/1N4148 SDT-23 SMT	J 9*
D2Ø6	C 9283-Ø	DIDDE, 1N914/1N4148 SDT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К В*
D2Ø8	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
D210	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	E10422~1	DIODE, HASTAN HATTAG SGT 23 SM.	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1NS14/1N4148 SOT-23 SMT	L 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	7 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT~23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	K 8
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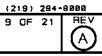
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JAW 02/23/99 DWG NO DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 9 OF 21 127323-1

PHONE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D22B	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED. SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1.	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
H53	102573-3	HS ASM, T2 ISOLATED CH1	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2. , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
EWH	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	8 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HWB	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø		6-32 X .625 PCB CAPTIVE STUD	16
	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW1 2	A10020-7		
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J5 Νδ
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2 N 3
HW1 6	A10020-7	6-32 X .625 PCB CAPTIVE STUD	A 4
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE 6-32 HEX NUT W/BELLEVILLE	1
HW1 B	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11056-1		
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 MEX NUT W/BELLEVILLE	8 4
	<del> </del>		
12	1015731	UDD 4 DOR 1 CTD MTA CUDD	C 4B
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	м 8
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
			1

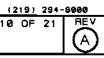
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DRAWN JAW 02/23/99 DWG. NO.
PROJ. MD390D0 12732

. SHEET 10 OF 21 127323-1



	•	PARTS LIST	•
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
<100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
<200	126317~1	REL, 30A 24V SPST PCB W/FASTON	E 9
100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
101	C 3510-2	CHOKE, 470UH 10% AXIAL	17
 L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	Н 8
_200	C 3510-2	CHOKE. 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
 01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
32	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
23	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	м 9*
0101	C 7448-1	MMBT3904 CHIP NPN	м 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA 50T-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
0105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
2108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
2109	□ 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
2110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
D112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
	155255 1	THE TOTAL SOURCE PROPERTY.	
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	<u> </u>	<del>-</del>	
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
0121	103200-1	NPN 230V 15A 30MHZ 25C5242	I 7
<u> </u>	103200 1	INTIN 258V TSA SEMINE 23C3272	
		<del></del>	
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		<del></del>	
		<del>-</del>	<del></del>
04.00	C 7440 4	WARTSONA CHIEN NOW	
D129	C 7448-1	MMBT3904 CHIP NPN	G 9*
0131	125106-1	MACED 8 AMP 400V TRIAC	F9
3132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q2 <b>0</b> 1	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

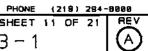
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DRAWN JAW 02/23/99 DWG. NO. PROJ. **MD390D0** 

SHEET 11 OF 21



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q2Ø3	102483-1	PNP 300V 500MA 50T-23	J 9*
Q2Ø4	□ 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q2Ø5	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ 50T-223	K 7*
Q2Ø8	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q2Ø9	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ 50T-223	J 2*
G211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0212	103200-1	NPN 230V 15A 30MHZ 25C5242	J 1
	,		
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
	-		
0229	C 744B-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MAC9D 8 AMP 400V TRIAC	<u>E</u> 9
0232	102478-1	TRIAC DRIVER SOS 8V THRESH	F 8
0233	102480-1	FET. N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	7 8×
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R8	A11371-1022	1K Ø.125W 5% CHIP 1206	N 10*
R9		10K 1/10W 1% CHIP 0805	H 9*
R10		20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17		8.25K 0.1W 1% CHIP 0805	F 10*
R18	<del></del>	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8808
DRAWN JAW 82/23/99 DWG, NO. SHEET 12 OF 21 RE PAOJ. MD39@D@



PARTS LIST				
REF DES	C.P.N.	DESCRIPTION	MAP LOC.	
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*	
R22	_	392K 0.10W 1% CHIP 0805	I 9*	
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*	
R24		57.6K 0.10W 1% CHIP 0805	I 9*	
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*	
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*	
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*	
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*	
R29		OPEN	B 2	
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*	
R31	<del> </del>	100K 0.1W 1% CHIP 0805	J B*	
R32		DO NOT INSTALL	J B	
R32X	127229-1	RES. 1100 OHM 5W 5% THICK FILM	J B	
R33	A11371-@R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*	
R34		DO NOT INSTALL	J 9	
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1	
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*	
R102		392K 0.10W 1% CHIP 0805	N 9*	
R103		499 CHM 0.10W 1% CHIP 0805	N 9*	
R104	+	10K 1/10W 1% CHIP 0805	N 9*	
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R106	<del></del>	1K 0.10W 1% CHIP 0805	M 9*	
R107		10K 1/10W 1% CHIP 0805	L 10*	
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*	
R109	A11368-19122	19.1K Ø.125W 1% CHIP 1206	M 9*	
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L g*	
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*	
R112	A10265-19121	19.1K Ø.25W 1% MF	L 9	
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0905	L 101*	
R114	A11368-82511	8.25K Ø.1W 1% CHIP Ø8Ø5	L 10*	
R1 15	A11368-68121	68.1K 0.10W 1% CHIP	L 10*	
R1 16	A11368-22601	226 OHM 0.10W 1% CHIP 0805	м 9*	
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м в*	
R118	<del>                                     </del>	10.2K 0.10W 1% CHIP 0805	M 10	
R119	A11371-3333	33K Ø.25W 5% CHIP 1210	M 9*	
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*	
R121	<del>+</del>	10K 1/10W 1% CHIP 0805	M 10	
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*	
R123	<del>+</del>	100K 0.1W 1% CHIP 0805	M 9*	
R124		158K 0.10W 1% CHIP 0805	M 9*	
R125		100K 0.1W 1% CHIP 0805	N 9*	
R125	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*	
R127	A11371-6821	6.BK 0.10W 5% CHIP 0805	N 9*	
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*	
R130		OPEN	0.8*	
R131		OPEN	O B*	
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*	
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JAW 02/23/99 DWG. NO. DRAWN MD390D0 PROJ.

1718 WEST MISHAWAKA RDAD

PHONE (219) 294-8888 SHEET 13 OF 21 RE 127323-1



DCE DEC		PARTS LIST				
REF DES	C.P.N.	DESCRIPTION	MAP LOC.			
R133	A11371-7511	750 OHM 0.10W 5% CHIP	н 6*			
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	М 7			
R135	A11371-3923	3.9K Ø.25W 5% CHIP	M 7*			
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*			
R137		150 OHM 0.125W 1% CHIP	N 8*			
R13B	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*			
R139	A11368-10703		N B*			
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N B*			
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*			
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0.8*			
R143	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N B*			
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*			
R145	A11368-75RØ3		N B*			
R146	A11371~1331	13K OHM 0.10W 5% CHIP 0805	N 7*			
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*			
R148	A11371~1811	180 OHM 0.10W 5% CHIP	M 7*			
R150	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*			
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*			
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*			
R154	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 6*			
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*			
R156	103199-1	0.4 OHM 1W 5% 2512 T/A	M 6*			
R157	103199~1	Ø.4 OHM 1W 5% 2512 T/R	N 5*			
R158	A1Ø266-2R74	2.7 DHM 2W 5% CF	18			
R159	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*			
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*			
R161	A11371-1331	13K DHM 0.10W 5% CHIP 0805	H 7*			
R162	A11371~4701	47 OHM Ø.1ØW 5% CHIP	H 7*			
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*			
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*			
R167	103199-1	0.4 OHM 1W 5% 2512 T/A	E 6*			
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*			
R169	103199~1	0.4 OHM 1W 5% 2512 T/R	F 6*			
	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*			
R171	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*			
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*			
R174		804K OHM 0.125W 1% CHIP 1206	G 8*			
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*			
R176		10K 1/10W 1% CHIP 0805	G 8*			
R177	A11368-10021		H 8*			
R178	A11368~90921		же и			
R179		100K 0.1W 1% CHIP 0805	F 7*			
R160	A11368-39231		G 8*			
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*			
R182		10K 1/10W 1% CHIP 0805	5 1 " F 8 *			
R183		100K 0.1W 1% CHIP 0805	F 8*			
R184	_	20K 0.25W 1% CHIP 1210	F 9*			
11147	A11300-20023	201 0.2311 17 CILL 1218	, <u>a</u> ,			
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JAW 22/23/99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 45517 PHONE (219) 294-8888 DWG. NO. SHEET 14 OF 21 RE 127323-1



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*	
R186	A11358~10031	100K 0.1W 1% CHIP 0905	N 10*	
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*	
F188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*	
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 101*	
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 5*	
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 5*	
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*	
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*	
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*	
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*	
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*	
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	м 10	
R198		OPEN	M 10	
R19\$	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*	
A200	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1	
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 101*	
A202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*	
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*	
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*	
R205	A11371-6814	680 OHM 0.50W 5% CHIP	М 1*	
A206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9×	
R2Ø9	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*	
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*	
R211		10K 1/10W 1% CHIP 0805	J 3*	
R212	A10265-19121	19.1K 0.25W 1% MF	J 9	
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*	
R214	A11368-82511	B.25K 0.1W 1% CHIP 0805	J 10*	
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*	
R216		226 OHM 0.10W 1% CHIP 0805	K 9*	
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*	
R21B		10.2K 0.10W 1% CHIP 0805	K 10	
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*	
R220	_	90.9K 0.10W 1% CHIP 0805	K 9*	
8221	A1 1368-10021		K 10	
R222		158K 0.10W 1% CHIP 0805	K 9*	
R223		100K 0.1W 1% CHIP 0805	K 9*	
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*	
A225		100K 0.1W 1% CHIP 0805	L 9*	
R226	A11368-49921		K 9*	
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*	
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*	
R230		OPEN	L 7*	
R231		OPEN	L 7*	
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*	
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н э*	
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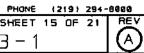
718 WEST MISHAWAKA ROAD

DRAWN

PROJ.

ISHAWAKA ROAD ELKHART, INDIANA 46517

JAW 02/23/99 DWG. NO. SHEET 15 OF 21 127323-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
FI234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
F1235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	К 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	к в∗
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-B211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371~3333	33K Ø.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	к 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K B*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 DHM 0.10W 5% CHIP 0805	J 2*
R24B	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	м з*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
8270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	Ø.4 DHM 1W 5% 2512 T/R	н з*
R274		604K OHM 0.125W 1% CHIP 1206	E B*
R275		5.11K QHM 0.10W 1% CHIP 0805	E 8*
8276		10K 1/10W 1% CHIP 0805	E 8*
R277		10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921		L 9*
R279		100K 0.1W 1% CHIP 0805	E 7*
R280		392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282			D 8*
R283	A11368-10031		E 8*
R284		20K 0.25W 1% CHIP 1210	F 9*
R285		10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10021		L 121*
13200	V11300-10031	ISSN S.IM IN CUTE ADAR	L 120°
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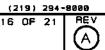
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DRAWN JAW 02/23/99 DWG. NO. SHEET PROJ. MD390D0

SHEET 16 OF 21 127323-1



REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R2B7	A11368-15831	158K 0.10W 1% CHIP 0805	K_10 *
R28B	A11368-15831	158K Ø.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	№ 8
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
F1292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R3Ø3	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 6*
R3Ø4	103199-1	Ø.4 DHM 1W 5% 2512 T/R	M 5*
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R31Ø	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	Ø.4 CHM 1W 5% 2512 T/R	*61
R313		10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K CHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 1Ø*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L S
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 CHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 DHM 1W 5% 2512 T/R	К 3*
R403	103159-1	Ø.4 DHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*
R4Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*_
		<u> </u>	

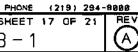
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1718 WEST	MISHAWA	KA ROAD E	LKHART.	. INDIANA	46517
DRAWN	WAL	02/23/99	DWG.	NO.	
PRQJ.	MD	390 D0		1 2	2732

SHEET 17 OF 21



		PARTS LIST	
REF DES	Ç. ₽. N.	DESCRIPTION	MAP LOC.
R412	103199-1	Ø.4 OHM 1W 5% 2512 T/R	*E I
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K Ø.10W 1% CHIP Ø8Ø5	K 10#
R417	A11371-3934	38K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
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S1	102488-1	SPDT HORIZ SLIDE	L 10
S1	102488-1 C 7325-1	SPDT HORIZ SLIDE 2P 2 POS. PC SLIDE SW.	L 10 L 10
52	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
52 TP38	C 7325-1 C 9896-9	2P 2 POS. PC SLIDE SW. TEST POINT LOOP	L 10
S2 TP38 TP39	C 7325-1 C 9896-9 C 9896-9	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP  TEST POINT LOOP	L 10 K 1 N 7
TP38 TP39 U1	C 7325-1 C 9896-9 C 9896-9 C 5095-2	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG.	L 10  K 1  N 7  H 10
TP38 TP39 U1 U1X	C 7325-1 C 9896-9 C 9896-9 C 5095-2 C 9918-1	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK	K 1 N 7 H 10 H 10
TP38 TP39 U1 U1X U2	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG.	K 1 N 7 H 10 H 10 H 9
TP38 TP39 U1 U1 X U2 U2X	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP  TEST POINT LOOP  POS. 15 VOLT REG.  TO220 VERT CLIP-ON HEATSINK  NEG. 15 VOLT REG.  TO220 VERT CLIP-ON HEATSINK	L 10  K 1  N 7  H 10  H 10  H 9  H 9
TP38 TP39 U1 U1X U2 U2X U3	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP  TEST POINT LOOP  POS. 15 VOLT REG.  TO220 VERT CLIP-ON HEATSINK  NEG. 15 VOLT REG.  TO220 VERT CLIP-ON HEATSINK  OPTO BJT NPN SOIC-B CTR = 100%	K 1 N 7 H 10 H 10 H 9 H 9 N 10
TP38 TP39 U1 U1X U2 U2X U3	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP	L 10  K 1  N 7  H 10  H 10  H 9  H 9  N 10  I 9
TP38 TP39 U1 U1X U2 U2X U3 U4	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5	2P 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-B CTR = 100% MC33078D DUAL LO NOISE OP AMP OPTO CELL ON-500 OHM	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100	C 7325-1  C 9896-9  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  C 9212-3	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC~B CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON=500 OHM MC33079D QUAD LO NOISE OP AMP	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9 M 10
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101 U102	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9012-3  C 9038-8	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP OPTO CELL ON-500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9 M 10 N 9
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101	C 7325-1  C 9896-9  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  C 9212-3	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON=500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9 M 10 N 9 G 7
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101 U102 U104	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9012-3  C 9038-8	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP OPTO CELL ON-500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9 M 10 N 9
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100	C 7325-1  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9036-8  C 9038-8	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON=500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14	K 1 N 7 H 10 H 10 H 9 N 10 I 9 N 9 M 9 M 10 N 9 G 7 F 7 N 6
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101 U102 U104 U105	C 7325-1  C 9896-9  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9012-3  C 9038-8  C 9038-8  C 8262-5	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON-500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14 MC33078D DUAL LO NOISE OP AMP ASM, THERMAL SENSE OPTO CELL ON-500 OHM	K 1 N 7 H 10 H 10 H 9 N 10 I 9 N 9 M 9 M 10 N 9 G 7 F 7
S2 TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101 U102 U104 U105 U106 U106 U200	C 7325-1  C 9896-9  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9012-3  C 9038-8  C 9038-8  C 9262-5  H42902-9	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON=500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14 MC33078D DUAL LO NOISE OP AMP ASM, THERMAL SENSE	K 1 N 7 H 10 H 10 H 9 N 10 I 9 N 9 M 9 M 10 N 9 G 7 F 7 N 6
TP38 TP39 U1 U1X U2 U2X U3 U4 U5 U100 U101 U102 U104 U105 U106	C 7325-1  C 9896-9  C 9896-9  C 9896-9  C 5095-2  C 9918-1  C 5095-0  C 9918-1  102486-1  C 8262-5  C 8262-5  102723-2  C 9038-8  C 9038-8  C 9038-8  C 9262-5  H42902-9  102723-2	ZP 2 POS. PC SLIDE SW.  TEST POINT LOOP TEST POINT LOOP POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK NEG. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK OPTO BJT NPN SOIC-8 CTR = 100% MC33078D DUAL LO NOISE OP AMP MC33078D DUAL LO NOISE OP AMP OPTO CELL ON-500 OHM MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SO-14 MC33078D DUAL LO NOISE OP AMP ASM, THERMAL SENSE OPTO CELL ON-500 OHM	K 1 N 7 H 10 H 10 H 9 H 9 N 10 I 9 N 9 M 9 M 10 N 9 G 7 F 7 N 6 K 9

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ELKHART, INDIANA 46517 JAW 02/23/99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 18 OF 21 127323-1

PHONE (219) 294-8886

REV A

PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP LOC.			
U2 <b>0</b> 5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7			
U2 <b>0</b> 6	H42902-9	ASM, THERMAL SENSE	N 3			
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10			
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9			
wP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9			
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7			
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4			
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8			
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8			
Z1		OPEN	€ 9			
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP			
2	101016-1	LBL. BARCODE	SEE COMP MAP			
3	125242-1	CAP 625ID X 1" VINYL	SEE COMP MAP			
4	126825-1	SILICONE, CLEAR 30Z SYRINGE	SEE COMP MAP			
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP			
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP			
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP			
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP			
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP			
			_			
		· · · · · · · · · · · · · · · · · · ·				

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DRAWN JAW 02/23/99 DWG. NO.
PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

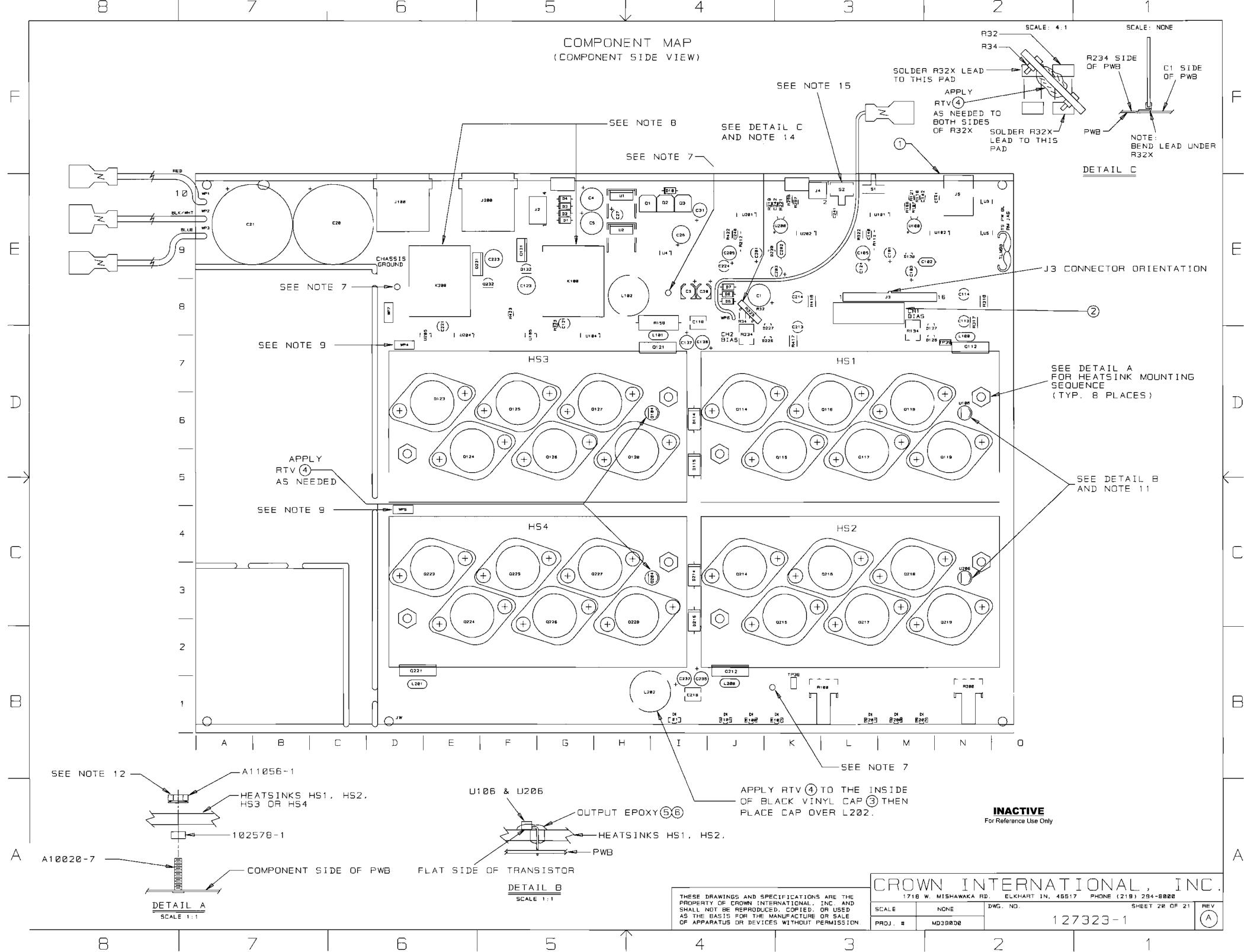
ELKHART, INDIANA 46517 PHONE (218: 294-8888 DWG. NO. SHEET 19 OF 21 RE

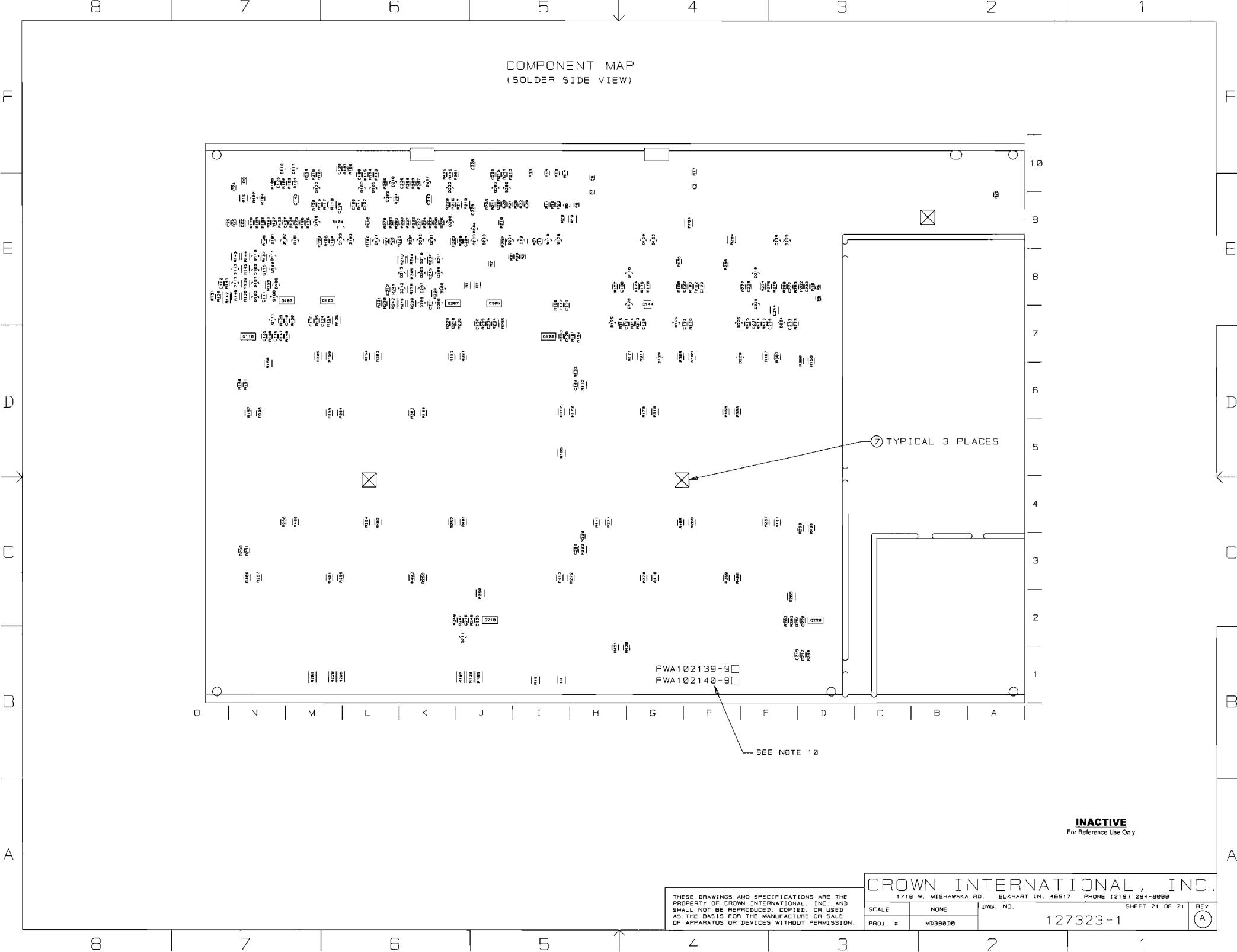
127323-1 A



# **Component Map**

for use with Main PWA 127323-1





	7015	551	25002107104	D 4 T C	-	APPROVALS			
E.C.	ZONE	HEV.	DESCRIPTION	DATE	BY	CHK	СM	EE	脬
T991752		Α	INITIAL RELEASE TO PRODUCTION.	09-11-99	DK,	M	1/2	WH	93

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- E. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
   ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES
- B. THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223
   TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

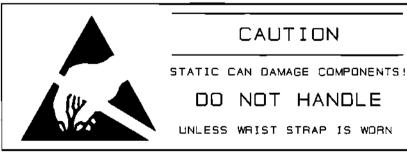
    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE

    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR

    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A, PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL 52 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 20 COMPONENT MAP FOR CLARITY.



INACTIVE

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_			CI	70V	II NV	۱T۱	ΕF	RNAT	IONA	INC.	
-	PRIN	TS TO	1718 WEST	MISHAWA	KA ROAD	ELKHA	RT.	INDIANA 46	517	PHONE (219) 294-8000	
	K		SERF F	PWA.	CE2K 1	<b>221</b> 4	40-	6 & -8	MAIN	TOL. UNLESS SPECIFIED  X.XX = ± 0.020  X.XXX = ± 0.010  DRILLS = ± 0.003	
			DRAWN	Σκ	09-11-99	AP	PRO	VED BY:	סט סע	T SCALE PRINT	
			CHECKED	1UM	9-13.99	ME 1	NJA		SUPERSEDES		
		_	SCALE	N	IDNE	ЕЕ ү	VA		E.C.		
			PROJ #	MD	39000	PE 7	12	9/13/99	DWG. NO.		
			FILENAME	:127323-	2_A_01.PCB	NEXT	T AS	5M:	127	323-2  <b>(</b> A)	

	_ PARTS LIS	Τ	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	Ø.1 MF 250V 5% MTL POLY	2	C118,C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19. HW20. HW21.
	_		HW22.HW23.HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106.R110.R201,R206.
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	23	R9, R104, R107, R108, R111,
·			R121,R176,R177,R182,R185,
			R193,R196,R204,R211,R221.
			R276, R277, R282, R285, R283.
			R296, R313, R413
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25. R30. R31. R123. R125. R179.
•			R183,R186,R189,R223,R225,
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118,R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139.R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15831	158K Ø.1ØW 1% CHIP Ø8Ø5	8	R122,R124,R187,R188,R222,
		<del></del>	R224.R287.R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109.R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM Ø.1ØW 1% CHIP Ø8Ø5	4	R116.R191.R216.R291
A11368-39231	392K 0.10W 1% CHIP 0805	8	R22, R23, R102, R180, R202, R280
A11368-49901	499 OHM Ø.1ØW 1% CHIP Ø8Ø5	2	R103,R203
A11368-49902	499 OHM 0.125W 1% CHIP	2	R137,R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113, R175, R213, R275, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20,R24,R190,R290
A11368-60432	<u> </u>		R174,R192,R274,R292
A11368-61911	6.19K 0.10W 1% CHIP 0805	2	R197,R297
A11368-68121	68.1K Ø.1ØW 1% CHIP	3	R12.R115.R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM Ø.25W 1% CHIP 1210	2	R145.R245
A11368-71511	7.15K CHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K Ø.1W 1% CHIP Ø805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120.R178.R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369+102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110.C141.C210.C241
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-H221		4	1
7113/1-6U02	0.0 OHM JUMPER CHIP 1206	+ +	R199,R299,R323,R423
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 DRAWN
 DK
 09/11/99
 DWG. NO.
 SHEET 2 OF 19
 RE
 PROJ. MD390D0



	PARTS LIS	т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371~1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	2	R160, R260
A11371-1B11	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119.R140,R143,R219,R240.R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11,R26.R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R31B, R417, R41B
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162.R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142.R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34
A11371-5863	5.6 Ø.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	Б_	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-B211	820 OHM 0.10W 5% CHIP	Б	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109, C111, C115, C209, C211, C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	27	C6,C7,C12,C24,C25,C28,C29,
			C122, C126, C127, C128, C129,
		<del>                                     </del>	C130,C131,C132,C133,C139,
<u> </u>			C222, C226, C227, C228, C229,
			C230.C231.C232.C233.C239
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219
C 2851-1	1N4004 SILICON RECT.	7	D1.D2,D3,D4,D6.D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N52408	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4.C5
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102.C202
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09/11/99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

SHEET 3 OF 19 127323-2



PHONE (219) 294-8000

	PARTS LIS		
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C B262-5	MC33078D DUAL LO NOISE OP AM	4	U4, U5, U105, U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OF AM	2	U101.U201
C 9038-8	COMPARATOR, QUAD LM339D SQ-1	4	U102, U104, U202, U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9252-5	2N3804 40V NPN TRANSISTOR	2	Q1 Ø4 , Q2 Ø4
C 9283-0	DIODE, 1N914/1N414B SOT-23 S	56	D9.D13,D101,D102.D103.D104.
			D105, D106, D107, D108, D109.
			D110, D111, D112, D113, D116,
			D117, D118. D119. D120. D121.
	-		D122, D123, D124, D125, D126,
			D127.D128.D129.D130.D201.
			D202, D203, D204, D205, D206.
			D207, D208, D209, D210, D211.
			D212, D213, D216, D217, D218,
	<del></del>		D221, D222, D223, D224, D225,
			D225, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP3B, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT~	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205
C10422-1	DIODE. 3A 400V 1N5404 AXIAL	4	D114.D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J 4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	-	8	C104.C120.C135.C204.C220.C235
102438-560K2	56PF 200V 10% NPO 0805	2	C106, C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108.C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	2	C103, C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113.C114.C213.C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102472-3	HDR, 16POS .100 CTR SGL ROW	1	13
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102476-1	LED, SMT R/A GREEN	3	E1.E101.E201
102477-1	LED, SMT R/A RED	4	E100.E102.E200.E202
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46617

 DRAWN
 DK
 Ø9/11/99
 DWG. NO.

 PROJ.
 MD390DØ
 1 2 7 3 2

127323-2



PHONE (219) 294-8888

	PARTS LIS	T	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102478-1	TRIAC DRIVER SBS 8V THRESH	2	0132,0232
102479-1	PWR MJD112 NPN DARLINGTON 10	Э	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q20B
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	ш3
102486-1	SPDT HORIZ SLIDE	1	S1
102573-3	HS ASM. T2 ISOLATED CH1	1	HS3
102574-3	HS ASM, T2 ISOLATED CH2, , .	1	HS4
102575~3	HS ASM, T2 NON-ISOLATED CH1.	1	HS1
102576-3	HS ASM. TZ NON-ISOLATED CH2.	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	В	HW1.HW2,HW3.HW4,HW5,HW6.HW7.
		_	HWB
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100, R200
102723-2	OPTO CELL ON-500 OHM	2	U100.U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244
103192-1	NPN 300V 500MA 50MHZ 50T-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	Ø.4 OHM 1W 5% 2512 T/R	54	R1,R7,R152,R153,R154,R155,
			R156.R157.R159.R167.R168.
			R169,R170,R171,R172,R252.
			R253, R254, R255, R256, R257,
			R259, R267, R268, R269, R270,
			R271.R272.R300.R301.R302.
			R303,R304,R305,R306,R307,
			R308, R309, R310, R311, R312.
			R400, R401, R402, R403, R404,
			R405, R406, R407, R408, R409,
		_	R410, R411, R412
103210-1	2.2UF 160V RADIAL T/R	4	C136, C137, C236, C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
125106-1	MAC9D 8 AMP 400V TRIAC	2	0131,0231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADMESIVE LOCTITE 384 OUTPUT	ė	5
125482-1	ACTIVATOR LOCTITE "OUTPUT"		
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	6 C3.C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	2	4
127442-1	PREP. CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2_	U106,U206
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8000
DRAWN DK 09/11/99 DWG. NO. SHEET 5 OF 19 RE 09/11/99 DWG. NO. PROJ. MD390D0



REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
22	103418-103K2	0.01 MF 100V 10% X7R 0805 SMD	F 9*
23	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	6.8
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
	A11427-104K2	0.1 MF 50V 10% 0805	н э*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	6 9
222	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
	A11427-104K2	0.1 MF 50V 10% 0805	0 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
030	125508-1	10UF 50VDC ELECTROLYTIC SMD	18
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C1Ø1	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 50V AX CERM	мэ
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104	102438-101K2	100PF 200V 10% NPO 0805	м 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	<del>+</del>	0.01MF 50V 10% CHIP 0805	H 6*
C110	+	470PF 50V 10% NPO 0805 T/R	M 7*
C111		Ø.01MF 50V 10% CHIP 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N B
C114	102468-1	47UF 10V 20% NP RAD T/R	N B
C115	-	0.01 MF 50V 10% 0805	N 8*
C116	<del> </del>	4700PF 50V 10% X7R 0805	N 7*
C117	+	2700PF 50V 10% CHIP 0805	I 7*
C118	<del>                                     </del>	0.1 MF 250V 5% MTL POLY	I B
C119	+	4700PF 50V 10% X7R 0805	I 7*
C12Ø	1	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G B
C122		0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 1Ø*
C127	<del> </del>	0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C128	•	0.1 MF 50V 10% 0805	M 9*
C125 C130	<b>+</b>	0.1 MF 50V 10% 0805	H B*
_,	1.1112/ 10182	0.1 001 102 0000	

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN DK 09/11/09 DWG, NO. SHEET 6 OF 19 RE 09/11/99 DWG. NO. DΚ DRAWN PROJ. мрзяйри

SHEET 6 OF 19 127323-2



		PARTS LIST	
HEF DES	C. P. N.	DESCRIPTION	MAP LOC.
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	М 10
C143		0.01MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	К 9
C2Ø3	102467-1	22MF 25V 20% RAD T/R	K 9
C204		100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215		0.01 MF 50V 10% 0805	K 8*
C216		4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1*
C218		0.1 MF 250V 5% MTL POLY	I 1
C219		4700PF 50V 10% X7R 0805	E 1*
		100PF 200V 10% NPO 0805	
C22Ø			D 2*
C221	C10196~1	2.2MF 50V 20% RAD T/R	E 8 E 8*
C222		0.1 MF 50V 10% 0805	
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226		0.1 MF 50V 10% 0805	K 10*
C227	<del>}</del>	0.1 MF 50V 10% 0805	K 9*
C228	1	0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C230		0.1 MF 50V 10% 0805	<u> </u>
C231		0.1 MF 50V 10% 0805	E 7*
C232		0.1 MF 50V 10% 0805	E 7*
C233		0.1 MF 50V 10% 0805	D 8*
C234		0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
	INACT		

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09/11/99 DWG. NO. DRAWN PROJ. мдзэйдй

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

PHONE (219) 294-8000 SHEET 7 OF 19 RE 127323-2



B B	<u> </u>	PARTS LIST	T
REF DES		DESCRIPTION	MAP LOC.
<u>C236</u>	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369~471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 1@
D3	□ 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J B
D7	C 2851-1	1N4004 SILICON RECT.	J 8
Da	C 3549-0	DIODE ZENER, 10V, 1N5240B	J B
D9	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-Ø	DIQDE, 1N914/1N4148 SOT-23 SMT	N B*
D107	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D109	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	N B*
D110	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N B*
D1 1 1	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D113	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
	<del></del>	DIODE, 3A 400V 1N5404 AXIAL	
D115	C10422-1 C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	I 5 G 8*
D117	<del> </del>	DIODE, 1N914/1N4148 SOT-23 SMT	M 1Ø*
	C 9283-0	-	+
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT+23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT+23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	G 6*
			<u> </u>

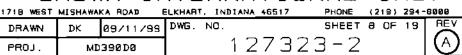
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DK 09/11/99 DWG. NO. DRAWN MD390D0 PROJ.

SHEET 8 OF 19 127323-2



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D130	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	м 9
D2Ø1	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 9*
D202	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	E 8*
D217	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D21B	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-Ø	DIODE, 1N814/1N4148 SOT-23 SMT	ΚВ
D228	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	F 6*
D23Ø	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED. SMT R/A GREEN	L 1
E2 <b>0</b> 2	102477-1	LED, SMT R/A RED	M 1
<del></del> HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L B
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2.	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2. , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANDDIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
	1	Tribution of all minutes	
		-	

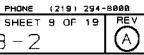
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ELKHART, INDIANA 46517 1718 WEST MISHAWAKA ROAD Ø9/11/99 DWG. NO. DRAWN DK PROJ. мрээрра

SHEET 9 OF 19



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 @	A10020+7	6-32 X .625 PCB CAPTIVE STUD	I 6
HWI 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	8 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	HDR. 16POS .100 CTR SGL ROW	м в
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
	101993-1	JACK, 6P4 COND MODULAR R/A	<del>                                     </del>
J 100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1		E 9
L100	C 3510-2	REL. 30A 24V SPST PCB W/FASTON	N 7
	C 3510-2		I 7
L101	<del></del>	CHOKE, 470UH 10% AXIAL	H 8
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	
L200	C 3510-2	CHOKE, 470UH 10% AXIAL CHOKE, 470UH 10% AXIAL	J 1
L201 L202	C 3510-2		D 1
	102470-1	INDUCTOR, 2.75UH 11A RADIAL	+
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
03	102479-1	PWH MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9* _
0101	C 744B-1	MMBT3904 CHIP NPN	M 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
0105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N B*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
0111	C 9831-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0112	103200-1	NPN 230V 15A 30MHZ 25C5242	N 7
0120	103193-1	PNP 300V 500MA 50MHZ SOT+223	I 7*
0121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
0129	C 7448-1	MMBT3904 CHIP NPN	G 9*
		<u> </u>	

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000 DRAWN DK 08/11/99 DWG, NO. SHEET 10 OF 19 RE 09/11/99 DWG. NO. мрзэйрй PROJ.



REF DES C.P.N DESCRIPTION Q131	MAP LOC.
	F 9
	F9
0132	
0133   102480-1   FET, N-CH 25V 50MA SOT-23	M 9*
0200 C 7448-1 MMBT3904 CHIP NPN	K 9*
0201 C 7448-1   MMBT3904 CHIP NPN	K 9* _
0202 C 9931-4 MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203   102483-1   PNP 300V 500MA SOT-23	J 9*
0204 C 9252-5 2N3904 40V NPN TRANSISTOR	I 3
0205	J 7*
0207	K 7*
0208   102481-1   NPN 25V LOW NOISE SOT~23	K 7*
0209 C 9931-4 MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210 103192-1 NPN 300V 500MA 50MHZ SOT-223	J 2*
0211 C 9931-4 MMBT5087LT1 PNP XSISTOR S0T-23	J 2*
Q212 103200-1 NPN 230V 15A 30MHZ 2SC5242	J 1
0220 103193-1 PNP 300V 500MA 50MHZ SOT-223	D 2*
0221	D 1
0229 C 7448-1 MMBT3904 CHIP NPN	E 9*
Q231   125106-1   MAC9D_8 AMP 400V TRIAC	E 9
0232   102478-1   TRIAC DRIVER 585 8V THRESH	F 8
0233   102480-1   FET, N-CH 25V 50MA SOT-23	J 9*
R1   103199-1   0.4 OHM 1W 5% 2512 T/R	
R2 A11371-2225 2.2K 1W 5% CHIP 2512	J B*
R3 A11371-3341 330K 0.10W 5% CHIP 0805	I 8*
R4A11371-3313   330 OHM 0.25W 5% CHIP	
R5 A11368-69811 6.98K OHM 0.10W 1% CHIP 0805	D
R6 A11368-93111 9.31K 0.1W 1% CHIP 0805	D 8*
R7   103199-10.4 OHM 1W 5% 2512 T/R	_ 1 8 ×
R8 A11371-1022   1K 0.125W 5% CHIP 1206	N 10*
R9 A11368-10021 10K 1/10W 1% CHIP 0805	н э*
R10 A11368-20023 20K 0.25W 1% CHIP 1210	н э*
R11 A11371-3341 330K 0.10W 5% CHIP 0805	I 9*
R12 A11368-68121 68.1K 0.10W 1% CHIP	I 9*
R13 A11371-1011 100 OHM 0.10W 5% CHIP 0805	I 10*
R14 A11371-R221 0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15 A11371-R221 Ø.22 DHM Ø.10W 5% CHIP Ø8Ø5	I 10*
R16 A11371-3923 3.9K Ø.25W 5% CHIP	×e N
R17 A11368-82511 8.25K 0.1W 1% CHIP 0805	F 1Ø*
R18 A11368-71511 7.15K OHM Ø.10W 1% CHIP Ø8Ø5	D 8*
R19 A11371-3313 330 OHM 0.25W 5% CHIP	I 1*
R20 A11368-57621 57.6K 0.10W 1% CHIP 0805	I 9*
R21 A11368-12121 12.1K OHM 0.10W 1% CHIP 0805	J g*
R22 A11368-39231 392K Ø.10W 1% CHIP 0805	* 9 1
R23 A11368-39231 392K Ø.1ØW 1% CHIP Ø8Ø5	I 9*
R24 A11368-57621 57.6K 0.10W 1% CHIP 0805	I 9*
R25 A11368-10031 100K 0.1W 1% CHIP 0805	N 9*
R26 A11371-3341 330K Ø.10W 5% CHIP Ø805	* P A
R27 A11368-20021 20K 1/10W 1% CHIP 0805	L 9*

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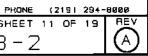
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Ø9/11/99 DWG. NO. DRAWN PROJ. мрээфрф

1718 WEST MISHAWAKA ROAD

SHEET 11 OF 19 127323-2



		PARTS LIST	•
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371~5615	560 OHM 1W 5% 2512 T/R	J B
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R100	102595÷3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0,10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368~10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	м 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K 0.25W 1% MF	L 9
R113	A11368-51111		L 10*
R114	A11368-82511		L 10*
R115	A11368-68121		L 10*
R116	A11368-22601		M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118		10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120		90.9K 0.10W 1% CHIP 0805	M 9*
R121		10K 1/10W 1% CHIP 0805	M 10
R122		158K 0.10W 1% CHIP 0805	N 9*
R123		100K 0.1W 1% CHIP 0805	M 9*
R124		158K 0.10W 1% CHIP 0805	M 9*
R125	-	100K 0.1W 1% CHIP 0805	N 9*
R126		49.9K 0.1W 1% CHIP 0805	м 9*
R127	A11371-6821	6.8K Ø.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.8*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10513-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-3323	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902		
	=		N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R138	A11368-10703		N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
			1

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09/11/98 DWG. NO. DΚ DRAWN MD39@D@ PROJ.

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 PHONE (219) 294-8000 SHEET 12 OF 19 RE 127323-2



	PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP LOC.				
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0 8*				
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0 8*				
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N B*				
R144	A11371-1213	120 OHM 0,25W 5% CHIP	N B*				
R145	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	N B*				
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*				
R147	A11371~1011	100 OHM 0.10W 5% CHIP 0805	N 7*				
R14B	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*				
R150	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*				
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*				
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*				
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*				
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*				
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*				
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*				
R158	A10266-2R74	2.7 OHM 2W 5% CF	1 8				
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*				
R160	A11371-1501	15 OHM Ø.10W 5% CHIP	1 7*				
R161	A11371-1331	13K DHM 0.10W 5% CHIP 0805	H 7*				
R162	A11371-4701	47 OHM Ø.10W 5% CHIP	H 7*				
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*				
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*				
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*				
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*				
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*				
F17Ø	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*				
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*				
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	н 6*				
R174	<del></del>	604K DHM 0.125W 1% CHIP 1206	G 8*				
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*				
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*				
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H B*				
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*				
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*				
R180	A11368-39231	392K Ø.10W 1% CHIP Ø805	G 8*				
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*				
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*				
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*				
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*				
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*				
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*				
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10 *				
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*				
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*				
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*				
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*				
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*				
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*				
	ATTENDED TOUZI	120 1770 17 2011 2023	14 3 "				
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	INACTIV	<u>                                       </u>					

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#### INC. CROWN INTERNATIONAL ELKHART. INDIANA 46517

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09/11/99 DWG. NO. DRAWN PROJ. мрзэйрй

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 13 OF 19 RE 127323-2



	•	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	B20 OHM 0.10W 5% CHIP	M_7*
R198	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
F1202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
H2Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R2 <b>04</b>	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
F2Ø6	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K 0.1W 1% CHIP 0805	J 10#
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 1210	
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230	7111371 3211	OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K Ø.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-48902		K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703		K 8*
		· · · · · · · · · · · · · · · · · · ·	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8 <u>*</u>
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
<u>⊓∠43</u>	LEEE-IVELIN	JUN W.ZOW DA LMIM 1210	K H*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 DK 09/11/99 DWG. NO. DRAWN PHOJ. мдээйрй

PHONE (219) 294-8888 SHEET 14 OF 19 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R244	A11371~1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	к 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	j 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	м з*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R26Ø	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371 1331	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5863	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 DHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R27Ø	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021		E 8*
R277	·	10K 1/10W 1% CHIP 0805	E 8*
R278	<del></del>	90.9K 0.10W 1% CHIP 0805	L 9*
R279	<del></del>	100K 0.1W 1% CHIP 0805	E 7*
R28Ø		392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282		10K 1/10W 1% CHIP 0805	D 8*
R283	<del>•</del>	100K 0.1W 1% CHIP 0805	E 8*
R284			F 9*
R285	_	20K 0.25W 1% CHIP 1210 10K 1/10W 1% CHIP 0805	F 8*
R286		100K 0.1W 1% CHIP 0805	L 10*
R280		158K 0.10W 1% CHIP 0805	K 10*
			K 10*
R288		158K 0.10W 1% CHIP 0805 100K 0.1W 1% CHIP 0805	K 10*
R289	<del> </del>	57.6K 0.10W 1% CHIP 0805	* * * * * * * * * * * * * * * * * * *
R290			<del></del>
R291	A11368-22601		N 3*
R292	A11368-60432		J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296		10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61811	6.19K 0.10W 1% CHIP 0805	K 10
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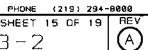
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 DK 09/11/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 15 OF 19





REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R298	C.1 / IV.	OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	<u>κ θ*</u>
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R3Ø1	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R3Ø7	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R3Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R3 <b>0</b> 9	103199-1		
<u> </u>	103135-1	0.4 OHM 1W 5% 2512 T/R 0.4 OHM 1W 5% 2512 T/R	G 6*
		0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1 103199-1		
R312		0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	H 7*
R315	A11368-51111		
<u>R316</u>	A11369-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B
R318	A113 <u>71-3934</u>	39K OHM 0.50W 5% CHIP 1210	N 8
R319	11171 1017	OPEN COM SEW EN ADAR COM TO	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	<u> </u>
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	*E M
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
F14Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 DHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021		E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	<b>†</b>	E 7*
R416	A11368-10011		K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934_	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 DHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F B
	I	1	1

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PRÖJ. MD390D0

 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 48517
 PHONE (219) 294-9888

 DRAWN
 DK
 Ø9/11/99
 DWG. NO.
 SHEET 16 OF 19
 RET



	PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP LOC.				
51	102488-1	SPDT HORIZ SLIDE	L 10				
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10				
TP38	C 9896-9	TEST POINT LOOP	K 1				
TP39	C 9896~9	TEST POINT LOOP	N 7				
U1	C 5095-2	POS. 15 VOLT REG.	H 10				
U1 X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 1Ø				
<b>U</b> 2	C 5096-0	NEG. 15 VOLT REG.	H 9				
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н 9				
ПЗ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10				
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9				
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9				
L100	102723-2	OPTO CELL ON-500 OHM	м 9				
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10				
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	И Э				
LJ104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7				
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7				
U106	127683-1	SENSOR, CE THERMAL	N 6				
U200	102723-2	OPTO CELL ON-500 OHM	КЗ				
U2Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 1 2				
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K S				
U2Ø4	C 9038-8	COMPARATOR, QUAD LM339D 50-14	E 7				
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7				
U2Ø6	127683-1	SENSOR. CE THERMAL	N 3				
WP1		WIRE, 16 RED FAST X 5 X TERM	A 10				
WP2		WIRE, 16 BLK/WHT TAB X 5 X T	A 9				
WP3		WIRE, 16 BLU FAST X 5 X TERM	A 9				
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7				
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4				
WP6	127442-1	PREP, CE HI-V WIRE	J B				
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D B				
Z1		OPEN	E 9				
1	102138-9		SEE COMP MAP				
2	101016-1		SEE COMP MAP				
3	125242-1		SEE COMP MAP				
4	126825-1		SEE COMP MAP				
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP				
6	125483-1		SEE COMP MAP				
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP				
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP				
7	103180-1	BUMPER, Ø.4" TALL BLK W/ADH	SEE COMP MAP				
<del></del>	183108 1	Galwi City 8.4 TACE BER WADII	SEE EGIVI IVIAT				
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 ELKHART, INDIANA 46517
 PHONE (219) 284-8088

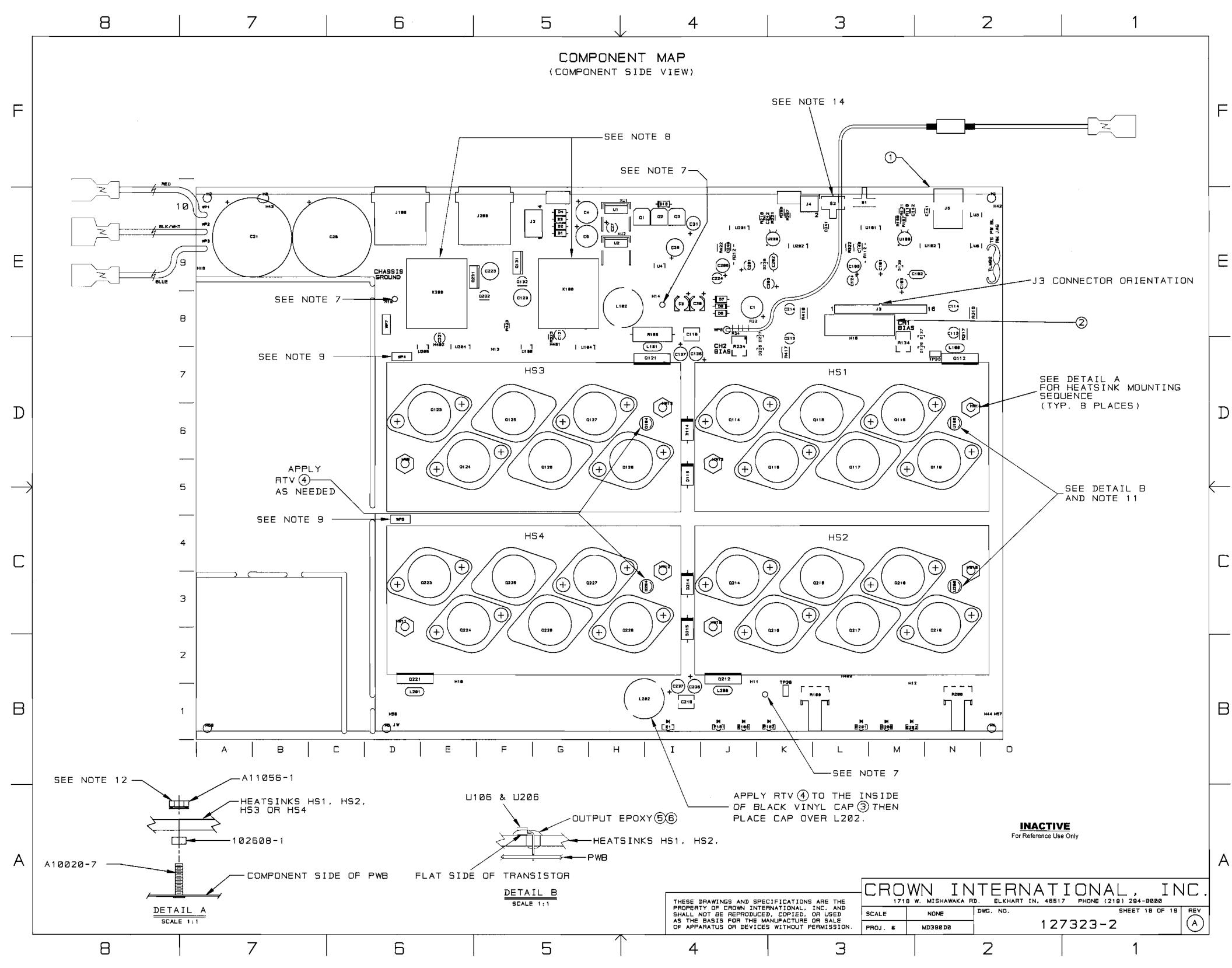
 DRAWN
 DK
 08/11/99
 DWG. NO.
 SHEET 17 OF 19
 RE
 PROJ. MD390D0

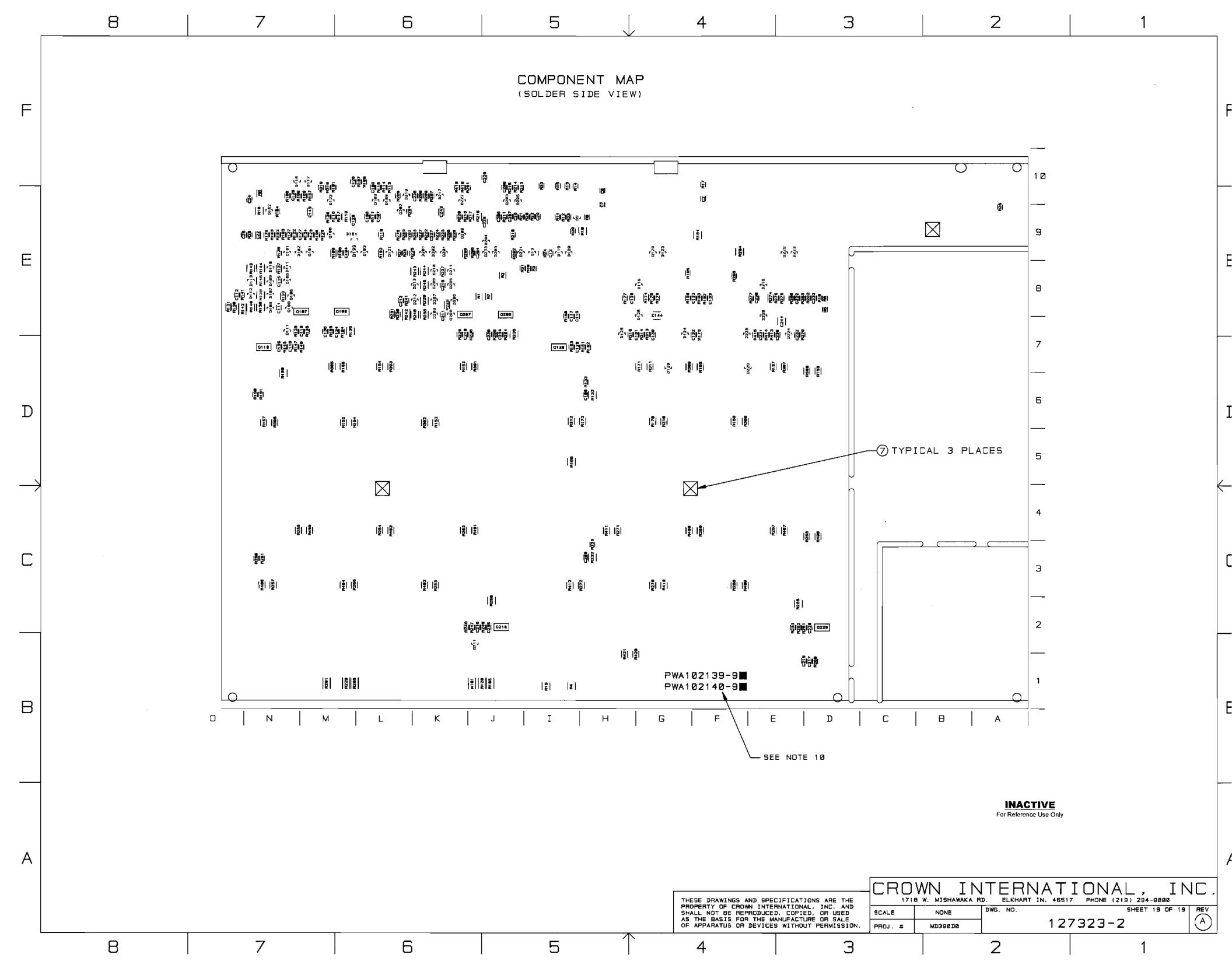




# **Component Map**

for use with Main PWA 127323-2





П	E. C. N.	ZONE	DEV	DESCRIPTION	DATE	č	A	PPRO	)VAL	3
ı	E. L. 14.	ZUNE	nev.	DESCRIPTION	DATE BY		CHK	CM	[EE. ]	ᅊ
			*	INITIAL RELEASE FOR PRODUCTION.	03-03-99	KL ₩	Jaw	5		<b>13</b>
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- 1									1 1	

#### NOTES:

- SCHEMATIC DRAWING NUMBER 102141. ١.
- PWB PART NUMBER 102138-9.
- THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE CHENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL, WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118, BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 8-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128, POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LOS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-2 ON COMPONENT SIDE.
- 15. INSTALL SZ REVERSED FROM SILK SCREENING.



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DD NOT HANDLE

UNLESS WRIST STRAP IS WORN

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#### CROWN INTERNATIONAL INC. PRINTS TO 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE 12191 294-8000

INACTIVE For Reference Use Only

K	P'	WA,	MAIN/	INI	PUT	CE10	TOL. UNLESS SPECIFIES X.XX = ± 0.026 X.XXX = ± 0.026 DRILLS = ± 0.006		
	DRAWN	KLW	03-03-99	A	PPRO	VED BY:	DO NO	T SCALE PRINT	٢
	CHECKED	Jaw	03/03/19	ME	CD H	3-3-99	SUPERSEDES		
	SCALE	\ \	IONE	EE			E.C.		
	PROJ #	MΦ	350D0	PE	98	3-3-99	DWG. NO. SHEET ( OF 28 REV		
	FILENAME: 127353-1_A_91.			NE>	CT AS	M:	127	353-1	(A)

	PARTS LIST							
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION					
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,					
			HW15, HW16					
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212					
A10266-2R74	2.7 OHM 2W 5% CF	1	R158					
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218					
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,					
			HW22, HW23, HW24					
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R106, R110, R201, R206,					
			R210, R316, R416					
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108,R111,R121,					
**************************************			R176, R177, R182, R185, R193,					
			R196,R204,R211,R221,R276,					
			R277, R282, R285, R293, R296.					
			R313, R413, R500, R501, R502,					
_			R503, R504, R506, R600, R601,					
			R602, R603, R604, R606					
A11368+10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,					
A11300 10031	182K 2. 14 1/2 CITAT 8883		R183, R186, R189, R223, R225,					
			R279, R283, R286, R289					
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21					
A11368-13703	137 OHM Ø. 25W 1% CHIP	2	R139, R239					
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237					
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,					
A11300 13031	130K 8. 18W 1% CHAI 8083	9	R224, R287, R288					
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209					
A11368-20021	20K 0.10W 1% CHIP 0805	1	H27					
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284					
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291					
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R200					
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103, R203					
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R1 26 , R2 26					
A11368-43321	5.11K DHM 0.10W 1% CHIP 0805	8						
M11388-31111	3.11K DHM 0.10W 1% CHIP 0805	-	R113,R175,R197,R213,R275,					
111360 57631	57 CV 0 10W 17 CUID 0005		R297.R315.R415					
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290					
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292					
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2_	R118, R218					
A11368-68121	68.1K 0.10W 1% CHIP	3	R12.R115.R215					
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5					
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18					
A11368-82511	8.25K 0.1W 1% CHIP 0805	3_	R17, R114, R214					
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278					
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6					
A11368-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234					
A11369-120K2	12PF 50V 10% NPO 0905 T/R	<u>6</u>	C500.C501.C502.C600.C601.C602					
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	£107, C207					
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242					
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241					
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KLW 03-03-99 DWG. NO. DRAWN MD390D0 PROJ.

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48817 PHONE (219) 294-8888 SHEET 2 OF 20 REV 127353-1



	PARTS LIST					
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423			
A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	Э	R14, R15, R33			
A11371-1011	100 OHM 0.10W 5% CHIP 0805	u	R13.R147.R247			
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422			
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8			
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138, R144, R145, R238, R244, R245			
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261			
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, R160, R260			
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263			
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232			
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2			
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19			
A11371-3333	33K Ø.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243			
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,			
			R414			
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235			
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317.R318.R417.R418			
A11371-4701	47 OHM Ø.10W 5% CHIP	2	R162.R262			
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34			
A11371-5R63	5.6 0.25W 5% CHIP	4	R150.R165.R250,R265			
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421			
A11371-6814	680 OHM 0.50W 5% CHIP	8	R105,R128,R181,R205,R228,R281			
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227			
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233			
A11371-8201	82 OHM Ø.10W 5% CHIP	4	R136,R194,R236,R294			
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R6#7			
A11371-8211	820 OHM 0.10W 5% CHIP	6	Rt 29, R141, R195, R229, R241, R295			
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1			
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1_	WP3			
A11427-103K2	0.01MF 50V 10% CHIP 0805	. 4	C109, C111, C209, C211			
A11427-103K5	Ø.01MF 50V 5% X7R 1206	2	C143, C243			
A11427-104K2	0.1 MF 50V 10% 0805	33	C2.C6.C7.C12,C24.C25,C28,C29,			
			C115,C122,C126,C127,C128,			
		_	C129.C130,C131,C132,C133,			
			C139, C215, C222, C226, C227,			
			C228, C229, C230, C231, C232,			
			C233, C239, C505, C506, C605			
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212			
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217			
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219			
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	wP6			
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10			
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201			
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	De			
C 3679-5	33UF 50V 20% VERT ELECT	1	C31			
C 4477-3	470 MF 35V VERT	2_	C4, C5			
			,			

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IISHAWAKA RDAD ELKHART. INDIANA 48517 PHONE (218) 294-8888 KLW 03-03-99 DWG. NO. SHEET 3 OF 28 RE 1718 WEST MISHAWAKA RDAD DRAWN PROJ. MD39@D@



	PARTS LIST				
C. P. N.	DESCRIPTION		REFERENCE DESIGNATION		
C 5095-2	POS. 15 VOLT REG.	1	⊔1		
C 5096-0	NEG. 15 VOLT REG.	1	U2		
C 5362-6	2.2 MF 50V VERT	1	C27		
C 5802-0	.47 MF 50V AX CERM	2	C102.C202		
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240		
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52		
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,D200,Q201,Q229		
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4, U5, U105, U205		
C 8576-B	100 MF 35V 10% ELEC	1	C26		
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500		
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104.U202,U204		
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223		
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104.Q204		
C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,		
<del></del>			D105.D106,D107,D108,D109,		
			D110, D111, D112, D113, D116,		
			D117, D118, D119, D120, D121,		
			D122.D123.D124.D125.D126,		
	-		D127.D128,D129,D130,D201,		
			D202, D203, D204, D205, D206,		
			D207, D208, D209, D210, D211,		
			D212, D213, D216, D217, D218,		
			D221, D222, D223, D224, D225.		
· <del>-</del> ·	·		D226, D227, D228, D228, D230		
C 9896~9	TEST POINT LOOP	2	TP38, TP39		
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X		
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	<del></del> 6	Q102,0109,Q111,Q202,Q209,Q211		
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, E221, C224		
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205		
C18422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215		
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134.R234		
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21		
H42902-9	ASM, THERMAL SENSE	2	U1 06, U206		
101016-1	LBL. BARCODE, , .	1	2		
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7		
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4		
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2		
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5		
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1		
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235		
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604		
102438-820K2	82PF 200V 10% NPO 0805	4	C108.C138.C208.C238		
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201		
102456-1	10UF 250V 20% RADIAL T/R	1	C1		
102457-1	22MF 25V 20% RAD T/R	4	C103.C203.C503.C603		
102459-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214		
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202		
102470-1	HDR. 12POS 2.5MM RT ANG KEYE	1	J 5 0 2		
102471-2	HDR, 16POS .100 CTR SGL ROW	1	13		
1027/2-3	TIDITY TOTOS . TOO CITY JOE TOW	1			

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1718 WEST MISHAWAKA ROAD ELKHART. IN:
DRAWN KLW 03-03-99 DWG. NO.
PROJ. MD390D0

NO. SHEET 4 OF 20



	PARTS LIST					
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200			
102475-1	BLOCK, 5 POS TERMINAL	1	TB1			
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201			
102477~1	LED, SMT R/A RED	4	E100,E102,E200,E202			
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132,Q232			
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3			
102480~1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233			
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108, Q208			
102483-1	PNP 300V 500MA SDT-23	2	Q103,Q203			
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3			
102488-1	SPDT HORIZ SLIDE	1	S1			
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	H53			
102570-3	HS ASM, T1 ISOLATED CH2, ,	1	HS4			
102571-3	HS ASM. TI NON-ISOLATED CHI.	1	HS1			
102572-3	HS ASM. TI NON-ISOLATED CH2.	1	HS2			
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26			
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100, R200			
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,			
182000 1	TO ACCUMENT ON THE PROPERTY OF		HW8			
102723-2	OPTO CELL ON=500 OHM	2	U100.U200			
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7			
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244			
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210			
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220			
103199-1	0.4 OHM 1W 5% 2512 T/R	38	R1.R7.R152.R153.R156.R157.			
183133 1	8:4 SINE IN 32 2312 1711	- 30	R159, R167, R168, R171, R172,			
			R252.R253,R256,R257,R259,			
			R267, R268, R271, R272, R300,			
	· .		R301,R302,R305,R306,R307,			
			R308, R311, R312, R400, R401,			
	·		R402.R405.R406.R407.R408.			
			R411.R412			
103210-1	2.2UF 150V RADIAL T/R	4	C136, C137, C236, C237			
	WIRE, 16 BLK/WHT TAB X 5 X T		WP2			
103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2.	HW27 , HW28			
125106-1	MACOD 8 AMP 400V TRIAC	2	Q131,Q231			
125242-1	CAP, .625ID X 1" VINYL	1	3			
125478-1	3.83KOHM Ø.5ØW 1% 2010 T/R	2	R142,R242			
	ADHESIVE LOCTITE 384 OUTPUT	0	5			
125482-1	ACTIVATOR LOCTITE 384 OUTPUT"	0	6			
_	10UF 50VDC ELECTROLYTIC SMD	2	C3.C30			
125508-1	REL, 30A 24V SPST PCB W/FAST	2	K100, K200			
126317-1	SILICONE, CLEAR 30Z SYRINGE	2	4			
	1/4" TRS/XLR COMBO PCB VERT	2	<u>'</u>			
126929-1	1/4 INSTACE COMBO PCB VERT		J500.J600			
		-				
1						
_		<u> </u>				

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PROJ.

#### CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8000 DRAWN KLW 03-03-99 DWG. NO. SHEET 5 OF 20 REV KLW 03-03-99 DWG. NO.

MD390D0



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
С3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	C S
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	8 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	* B N
€24	A11427-104K2	Ø.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0 9*
C26	C 8576-8	100 MF 35V 10% ELEC	19
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2		J 9*
C29		0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I B
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102485-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 5ØV AX CERM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPC 0805	L 9*
C107		27PF 50V 10% NPO 0805 T/R	L. 9*
C108		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0905	H 6*
C110	A11369-471K2	470PF 50V 10% NPQ 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	0.8*
C113	102458-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-104K2	0.1 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
£117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	18
C119		4700PF 50V 10% X7R 0805	Ĭ 7*
C12Ø		100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122		0.1 MF 50V 10% 0805	₽ 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129		0.1 MF 50V 10% 0805	M 9*
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#### INTERNATIONAL CROWN INC. ELKHART, INDIANA 48517 PHONE (219) 294-8800

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KLW 03-03-89 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 6 OF 20 127353-1



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427~104K2	Ø.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369~471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 10
C143		0.01MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	7 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204		100PF 200V 10% NPO 0805	J 9*
C205		100 MF 25V 20% VERT ELEC	J 9
C206		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C212	102468-1	47UF 10V 20% NP RAD T/R	K B
C214	102468-1	47UF 10V 20% NP RAD T/R	K B
C215		0.1 MF 50V 10% 0805	K 8*
C216		4700PF 50V 10% X7R 0805	J 2*
C217	_	2700PF 50V 10% CHIP 0805	D 1*
C218	· · · · · · · · · · · · · · · · · · ·	0.1 MF 250V 5% MTL POLY	I 1
C218		4700PF 50V 10% X7R 0805	E 1*
C220		100PF 200V 10% NPO 0805	†
	C10196-1	2.2MF 50V 20% RAD T/R	D 2*
C221		0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
			+
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	<del></del>	0.1 MF 50V 10% 0805	K 10*
C227	-	0.1 MF 50V 10% 0805	K 9*
£228	+	0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2		E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232		0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*
			-

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8000 KLW 03-03-99 DWG. NO. DRAWN MD390D0 PROJ.

SHEET 7 OF 20 127353-1



	<del></del>	PARTS LIST	• •
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	_	0.001UF 50V 5% NPO MLC 0805 T/	j 7*
C235		100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238		82PF 200V 10% NPO 0805	J 7*
C239		0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	1 9
C241		470PF 50V 10% NPO 0805 T/R	L 10
C242		33PF 50V 5% NPO MLC 0805	K 10
C243		0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500		12PF 50V 10% NPO 0805 T/R	A 2
C501		12PF 50V 10% NPO 0805 T/R	A 2
C502		12PF 50V 10% NPO 0805 T/R	8 2
C503	102467-1	22MF 25V 20% RAD T/R	8 2
C504		56PF 200V 10% NPO 0805	A 2
C505		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C509	A11427-104K2	OPEN	B 2
C600	A11250-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601		12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	
C603	102467-1	22MF 25V 20% RAD T/R	A 2 B 2
C604		56PF 200V 10% NPO 0805	B 2
- <del>-</del> -			_
C605	A11371-1501	0.1 MF 50V 10% 0805 15 OHM 0.1W 5% CHIP 0805	A 1 C 3
C606		15 OHM 0.1W 5% CHIP 0805	C 3
C607 C608	A11371-1501 A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1
	X113/1-1501	OPEN	B 2
C609	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
		1N4004 SILICON RECT.	+
D3	C 2851-1		G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
	C 2851-1	1N4004 SILICON RECT.	JB
D7	C 2851-1	1N4004 SILICON RECT. DIODE ZENER, 10V, 1N52400	J 8
D8	C 3549-0		J 8
D9 D10	C 9283-0 C 2851-1	DIODE, 1N914/1N4148 SOT-23 SMT	I 10
		1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<del> </del>
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*_
D105	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE. 1N914/1N4148 SQT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
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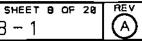
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KLW 03-03-99 DWG. NO. DRAWN PROJ. MD39@D@

1718 WEST MISHAWAKA ROAD

ELKHART. INDIANA 48517 PHONE (219) 294-8000 127353-1



	· ·	PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
D110	C 9263-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	1 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D115	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	1.9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	6.9*
D124	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M B
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	м 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	
D204	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	<u> </u>
D205	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	7 8*
D205	C 9283-0	DIQDE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K B*
D210	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	К В*
D210	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K B*
D212	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C18422-1	DIODE, 3A 400V 1N5404 AXIAL	1 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	1 2
D215	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 10*
D217	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	L 10*
D218	C 9283-0	DIQUE, 1N914/1N4148 SOT-23 SMT	J 9*
D221	£ 9283-0	<del>· · · · · · - · · - · · - · · - · · · - · · · - ·</del>	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
		DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D224	C 9283-0	<del></del>	F 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<del>-</del>
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9293-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8
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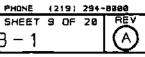
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KLW 23-03-99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 9 OF 20 127353-1



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H14		OPEN	8 1
H18		OPEN	D 8
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1,	<del></del>
HS2	102572-3	HS ASM, TI NON-ISOLATED CH2,	<del>                                     </del>
HS3	102569-3	HS ASM, TI ISOLATED CHI,	<del> </del>
HS4	102570-3	HS ASM, T1 ISOLATED CH2, . ,	<del>                                     </del>
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102508-1	SPACER, 6X.187 LONG ALUMINUM	A 4
EWH	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	<del>                                     </del>
HW7	102508-1	SPACER, 6X.187 LONG ALUMINUM	8 4
HWB	102508-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	<del></del>
HW1 8	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	<del> </del>	6-32 HEX NUT W/BELLEVILLE	
	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056~1 102579-1		<del></del>
HW25	<del> </del>	STAND, 1/4 AD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	<del> </del>	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	<del> </del>	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	HDR, 16POS .100 CTR SGL ROW	M B
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	1

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ISHAWAKA ROAD ELKHART, INDIANA 48517
KLW 03-03-99 DWG. NO. 1718 WEST MISHAWAKA ROAD DRAWN PROJ. MD39BDØ

PHONE (219) 294-8000 SHEET 10 OF 20 RE 127353-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	В 3
J502	102471-2	HDR. 12POS 2.5MM RT ANG KEYED	C 1
1600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL. 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	1 7
1102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	НB
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	j 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
03	102479~1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1		M 9*
	<del></del>	MMBT3904 CHIP NPN	N 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23 PNP 300V 500MA SOT-23	L 9*
0103	102483-1		
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
0105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SCT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
0110	103192-1	NPN 300V 500MA 50MHZ SCT-223	N 7*
0111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q12Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	<u> </u>
Q131	125106-1	MACSD B AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
0133	102480-1	FET, N-CH 25V 50MA SOT-23	
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
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ISHAWAKA ROAD ELKHART, INDIANA 48517
KLW 03-03-99 DWG. NO. 1718 WEST MISHAWAKA ROAD DRAWN MD390D0

PROJ.

PHONE (219) 294-8888 SHEET 11 OF 20 RE 127353-1



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
Q2Ø8	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	j 2*
Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER S85 8V THRESH	F B
Q233	102480-1	FET, N-CH 25V SØMA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	7 8∗
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
Ä3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
A6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D B*
R7	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 8*
RB	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	н 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	н 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A1136 <u>8-57621</u>	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368~10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

For Reference Use Only

# INC. CROWN INTERNATIONAL 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888 DRAWN KLW 83-83-99 DWG, NO. SHEET 12 OF 28 RE

PROJ.

MD390D0



		PARTS LIST	
HEF DES	C. P. N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	1 6*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N S*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	м 9*
R110		1K 0.10W 1% CHIP 0805	L 9*
R111	-	10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K 0.25W 1% MF	L S
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K 0.1W 1% CHIP 0805	L 10*
R115		68.1K 0.10W 1% CHIP	L 10*
R116		226 OHM 0.10W 1% CHIP 0805	м 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	м 9*
R118	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	M 12
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9.*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121		10K 1/10W 1% CHIP 0805	M 10
R122		158K 0.10W 1% CHIP 0805	N 9*
R123	·	100K 0.1W 1% CHIP 0805	м 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	м 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	м 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.6*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 5*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K Ø.25W 5% CHIP	м 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703	137 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*
<u> </u>		<del></del>	<u> </u>
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KLW 03-03-99 DWG. NO. DRAWN MD39@DØ PROJ.

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 48517 PHONE (219) 294-8688 g DWG. NO. SHEET 13 OF 20 REV 127353-1



	PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0.8*	
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*	
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N B*	
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*	
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*	
R14B	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*	
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*	
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*	
R153	103199-1	Ø.4 DHM 1W 5% 2512 T/R	K 5*	
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*	
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R158	A10266-2R74	2.7 DHM 2W 5% CF	1.8	
R159	103199-1	Ø. 4 OHM 1W 5% 2512 T/R	D 6*	
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*	
R151	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*	
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*	
R183	A11371-1811	180 DHM 0.10W 5% CHIP	I 7*	
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*	
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*	
R158	103199-1	0.4 DHM 1W 5% 2512 T/R	F 6*	
R171	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*	
R172	103199-1	Ø.4 DHM 1W 5% 2512 T/R	H 6*	
R174		604K OHM 0.125W 1% CHIP 1206	G 8*	
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*	
R176		10K 1/10W 1% CHIP 0805	G 8*	
R177		10K 1/10W 1% CHIP 0805	H B*	
R178		90.9K 0.10W 1% CHIP 0805	N 9*	
R179		100K 0.1W 1% CHIP 0805	F 7*	
R180		392K 0.10W 1% CHIP 0805	G 8*	
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R182		10K 1/10W 1% CHIP 0805	F 8*	
R183		100K 0.1W 1% CHIP 0805	F 8*	
R184		20K 0.25W 1% CHIP 1210	F 9*	
R185		10K 1/10W 1% CHIP 0805	G 8*	
R186		100K 0.1W 1% CHIP 0805	N 10*	
R187		158K 0.10W 1% CHIP 0805	M 10*	
R188		158K 0.10W 1% CHIP 0805	N 10*	
R189		100K 0.1W 1% CHIP 0805	M 10*	
R190	A11368-57621		N 6*	
R191	A11368-226Ø1		N 6*	
R192	· · · · · · · · · · · · · · · · · · ·	604K OHM 0.125W 1% CHIP 1206	L 9*	
R193		10K 1/10W 1% CHIP 0805	N 9*	
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*	
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*	
R196		10K 1/10W 1% CHIP 0805	M 9*	
R197	A11368-51111		M 10	
11137	ATTOOL STEEL	STATE OF THE STATE	141 15	
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN KLW Ø3-Ø3-89 DWG, NO. SHEET 14 OF 20 RE PROJ. MD390D0



PARTS LIST					
REF DE5	C. P. N.	DESCRIPTION	MAP LOC.		
R198		OPEN	M 10		
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*		
R200	102595~3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1		
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*		
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*		
R203		499 OHM 0.10W 1% CHIP 0805	L 9*		
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*		
R205	A11371~6814	680 OHM 0.50W 5% CHIP	M 1*		
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*		
R209		19.1K 0.125W 1% CHIP 1206	K 9*		
R210		1K 0.10W 1% CHIP 0805	J 9*		
R211		10K 1/10W 1% CHIP 0805	J 9*		
R212		19.1K 0.25W 1% MF	J 9		
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*		
R214	<del></del>	8.25K 0.1W 1% CHIP 0805	J 10*		
R215		68.1K 0.10W 1% CHIP	10*		
R216		226 OHM 0.10W 1% CHIP 0805	K 9*		
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*		
R218		6.81K OHM 0.10W 1% CHIP 0805	K 10		
A219		33K Ø.25W 5% CHIP 1210	J 9*		
R220		90.9K 0.10W 1% CHIP 0805	K 9*		
R221		10K 1/10W 1% CHIP 0805	K 10		
R222		158K Ø.10W 1% CHIP 0805	K 9*		
R223		100K 0.1W 1% CHIP 0805	K 9*		
R224		158K Ø.10W 1% CHIP 0805	K 9*		
R225		100K 0.1W 1% CHIP 0805	L 9*		
R226		49.9K 0.1W 1% CHIP 0805	K 9*		
R227	A11371-6821	6.8K Ø.10W 5% CHIP Ø805	K 9*		
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*		
R229	A11371-8211	B20 CHM 0.10W 5% CHIP	K 7*		
R230	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OPEN	L 7*		
R231		OPEN	L 7*		
R232	A11371-2223	2.2K Ø.25W 5% CHIP 1210	H 3*		
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н э*		
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7		
R235	A11371-3923	3.9K Ø.25W 5% CHIP	J 7*		
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*		
R237		150 CHM 0.125W 1% CHIP	K 8*		
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*		
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*		
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*		
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*		
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*		
R243	A11371-3333	33K Ø.25W 5% CHIP 1210	K 8*		
Ħ244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*		
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*		
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*		
11270		1 W. W. W. D. FOR JA W. (2) DONA	J Z "		
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For Reference Use Only

#### CROWN INTERNATIONAL INC. DRAWN KLW 03-03-98 DWG. NO. SHEET 15 OF 20 RE

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MD390D0

PROJ.



PARTS LIST					
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*		
R248	A11371-1B11	180 OHM 0.10W 5% CHIP	K 2*		
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*		
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*		
R253	103199-1	Ø.4 OHM 1W 5% 2512 T/R	к 3*		
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*		
R257	103199-1	Ø.4 OHM 1W 5% 2512 T/R	и з*		
R259	103199-1	Ø.4 DHM 1W 5% 2512 T/R	D 3*		
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*		
R261	A11371-1331	13K DHM 0.10W 5% CHIP 0805	E 2*		
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*		
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*		
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*		
R267	103199-1	0.4 DHM 1W 5% 2512 T/R	E 4*		
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*		
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*		
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н э*		
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*		
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*		
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*		
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*		
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*		
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*		
R280	A11368-39231	392K 0.10W 1% CHIP 0805	É 8*		
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*		
R282	A11368-10021	10K 1/10W 1% CHIP 0905	D 8*		
R283	A11368-10031	100K 0.1W 1% CHIP 0905	E 8*		
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*		
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*		
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10×		
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*		
R288	A11368-1 <u>5831</u>	158K 0.10W 1% CHIP 0805	K 1@*		
8289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*		
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*		
8291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	*E N		
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*		
R293	A11368-10021	10K 1/10W 1% CHIP 0805	К 9*		
R294	A11371-8201	82 CHM 0.10W 5% CHIP	J 7*		
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*		
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*		
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10		
R298		OPEN	K 10		
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*		
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*		
R301	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 6*		
R3@2	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*		
R305	103199-1	Ø.4 DHM 1W 5% 2512 T/R	M 6*		

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1719 WEST MISHAWAKA ROAD ECKHART, INDIANA 48517 PHONE (219) 294-8008 KLW 03-03-99 DWG. NO. DRAWN MD39@DØ PROJ.

SHEET 16 OF 20 FEV 127353-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	Ø 4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 18*
R317	A11371-3934	39K DHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPÉN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	2.4 CHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
8405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R4Ø6	103199-1	0.4 DHM 1W 5% 2512 T/R	N 3*
R4Ø7	103199-1	2.4 OHM 1W 5% 2512 T/R	E 4*
R4Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413		10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111		E 7*
R416	A11368-10011		K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K B
R419	X11371 3331	OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	j 9
	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500		10K 1/10W 1% CHIP 0805	A 3
R501		10K 1/10W 1% CHIP 0805	A 2
R502	A11388-10021		
A503		10K 1/10W 1% CHIP 0805 10K 1/10W 1% CHIP 0805	B 2
R504		10K 1/10W 1% CHIP 0805	
			A 2
R506	A11300-10021	10K 1/10W 1% CHIP 0805	A 2
R508	A11268-12021	OPEN	C 2
R600		10K 1/10W 1% CHIP 0805	A 1
R601		10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021		A 2
R603		10K 1/10W 1% CHIP 0805	A 2
R604		10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8808
DRAWN KLW 03-03-99 DWG, NO. SHEET 17 OF 20 RE PROJ. MD390D0



PARTS LIST						
REF DES	C. P. N.	DESCRIPTION	MAP LC	C.		
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	Α	1		
R608		OPEN	ε	1		
<b>S</b> 1	102488-1	SPDT HORIZ SLIDE	Ł	10		
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L	10		
TB1	102475-1	BLOCK, 5 POS TERMINAL	Α:	2		
TP38	C 9896-9	TEST POINT LOOP	к	1		
TP39	C 9896-9	TEST POINT LOOP	N	7		
U1	C 5095-2	POS. 15 VOLT REG.	Н	10		
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н	10		
U2	C 5096-0	NEG. 15 VOLT REG.	Н:	9		
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н :	9		
ПЭ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N	10		
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I :	9		
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N :	9		
U100	102723-2	OPTO CELL ON-500 OHM	М:	9		
U1@1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	М			
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N :	9		
U1@4	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G			
U105	€ 8262-5	MC33078D DUAL LO NOISE OP AMP	F			
U106	H42902-9	ASM. THERMAL SENSE	N	6		
U200	102723-2	OPTO CELL ON-500 OHM	К			
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J			
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K	<u></u>		
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E			
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E	_		
U2 <b>0</b> 6	H42902-9	ASM, THERMAL SENSE	N :	3		
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	Α:	2		
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A			
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	Α :	9		
WP3	_	WIRE, 16 BLU FAST X 5 X TERM	Α :			
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D	7		
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D.	4		
WP6	A12125-3140K	WIRE. 22 WHT 3/16X14 X FAST	J	 B		
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D	8		
Z1		OPEN .	E			
1	102138-9	PWB. CE1000/CE2000 MAIN/INPU	SEE CO	MP MAP		
2	101016-1	LBL. BARCODE, , ,	SEE CO	MP MAP		
3	125242-1		SEE CO			
4	126825-1		SEE CO			
5	125482-1		SEE CO			
6	125483-1		SEE CO			
7	103180-1		SEE CO			
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888

DRAWN KLW 93-83-99 DWG, NO. SHEET 18 OF 28 RE MD390D0

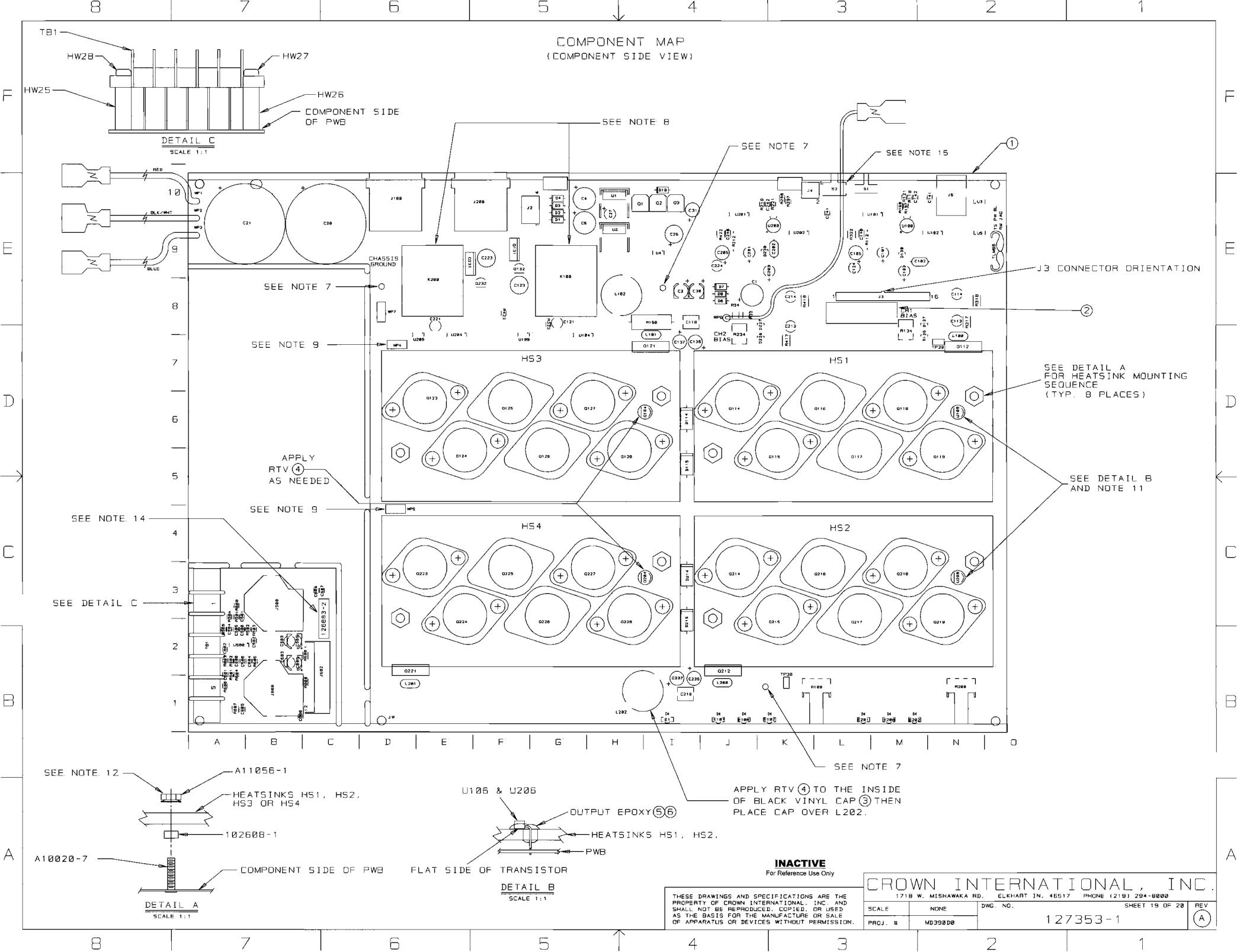
PROJ.

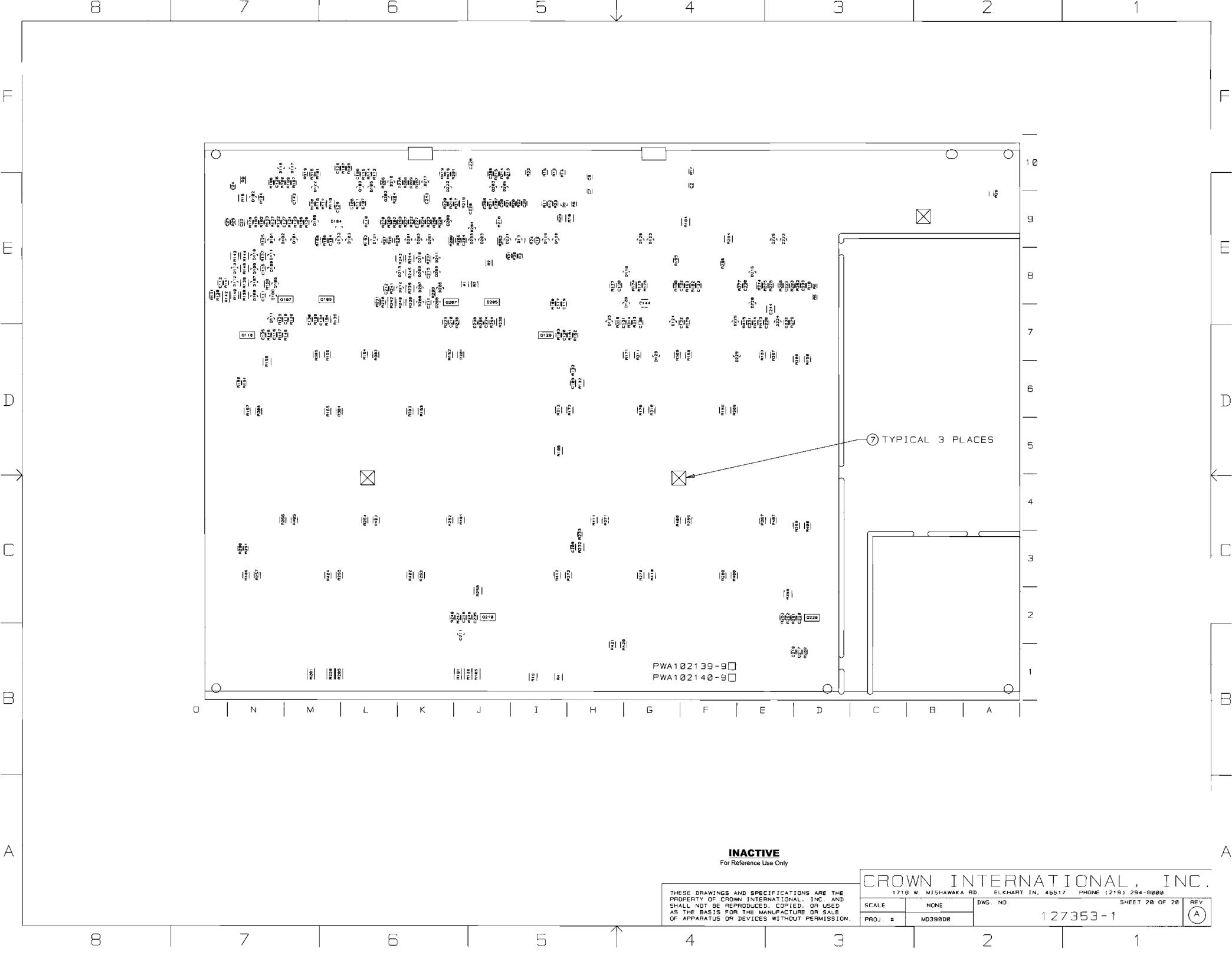




# **Component Map**

for use with Main PWA 127353-1





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	<u>.nv</u>		3 200

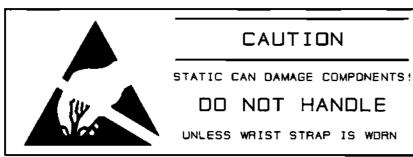
#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102141.
- 2. PWB PART NUMBER 182138-9.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- 6. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
  - ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- 8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223
   TO WP4 AND WP5 RESPECTIVELY.
- THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK DUT THE OLD PWA NUMBERS ON THE BOTTOM.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR
    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11856-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128, POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-2 ON COMPONENT SIDE.
- 15. INSTALL 52 REVERSED FROM SILK SCREENING.



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PRII	NTS TO	[] 1718 WEST			. ,		TAMF	I 🗆 N A	\ L PHONE	INC	4-8000
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		CHECKED	Jaw	03-29-99	ME	004	3-30-99	SUPERSEDE	ES		
		SCALE	2	IONE	ÉÉ	4114	MIM	E.C.			
		PROJ #	MD	390D0	ΡĒ	72	3-30-99	DWG. NO.		T 1 OF 20	
		FILENAME:	LENAME: 127353-2_A_81.PCB			(T AS	M:	] 127	<u>35</u>	3-2	

PARTS LIST						
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,			
			HW15, HW16			
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212			
A10265-2R74	2.7 OHM 2W 5% CF	1	R158			
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218			
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17.HW18.HW19.HW20.HW21.			
			HW22, HW23, HW24			
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,			
			R210, R316, R416			
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108,R111,R121,			
			R176,R177,R182,R185,R193.			
			R196, R204, R211, R221, R276,			
			R277, R282, R285, R293, R296,			
			R313,R413,R500,R501,R502,			
			R503, R504, R506, R600, R601,			
	-		R602, R603, R604, R606			
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,			
		- · · · ·	R183, R186, R189, R223, R225,			
	-		R279, R283, R286, R289			
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21			
	137 OHM Ø.25W 1% CHIP	2	R139,R239			
	150 OHM 0.125W 1% CHIP	2	R137,R237			
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,			
***************************************			R224, R287, R288			
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209			
A11368-20021	20K 0.10W 1% CHIP 0805	1	827			
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284			
A11368-22601	226 OHM 0.10W 1% CHIP 0805		R116, R191, R216, R291			
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22.R23.R102.R180.R202.R280			
A11368-49901	499 OHM 0.10W 1% CHIP 0805		R103,R203			
A11368-49921	49.9K Ø.1W 1% CHIP Ø8Ø5	2	R126, R226			
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805		R113, R175, R197, R213, R275,			
			R297, R315, R415			
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20.R24,R190,R290			
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292			
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118, R218			
A11368-68121	68.1K Ø.10W 1% CHIP	3	R12.R115.R215			
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5			
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	818			
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214			
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278			
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	86			
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234			
A11369-120K2	12PF 50V 10% NPD 0805 T/R	6	C500.C501.C502.C600.C601.C602			
A11369-270K2	27PF 50V 10% NPO 0805 T/R	<b>⊢</b> — —	C107, C207			
A11369-330J2	33PF 50V 5% NPO MLC 0805	_	C142, C242			
A11369-471K2	470PF 50V 10% NPO 0805 T/A	4	C110, C141, C210, C241			
7/1 WWW T/ IN&	301 10N NI 0 8080 17H	7	U 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
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KLW 03-29-99 DWG. NO. DRAWN PROJ. MD390D0

PHONE (219) 294-8080 SHEET 2 OF 20 REV



C. P. N. A11371-0R02 BESCRIPTION A11371-0R02 B. D. OHM JIMPER CHIP 1206 A11371-10R12 B. 2. OHM 0.10W 5X CHIP 0805 A11371-1011 BO OHM 0.10W 5X CHIP 0805 A11371-1013 BO OHM 0.10W 5X CHIP 0805 A11371-1013 BO OHM 0.10W 5X CHIP 0805 A11371-1013 BO OHM 0.25W 5X CHIP 1206 A11371-1013 A11371-1013 BO OHM 0.25W 5X CHIP 1206 A11371-1213 BO OHM 0.25W 5X CHIP 1206 A11371-1321 BO OHM 0.25W 5X CHIP 1206 A11371-1321 BO OHM 0.25W 5X CHIP 1206 A11371-1321 BO OHM 0.10W 5X CHIP 0805 A11371-1321 BO OHM 0.10W 5X CHIP 0805 A11371-1811 BO OHM 0.10W 5X CHIP 0805 A11371-2223 BO OHM 0.10W 5X CHIP 1210 BO OHM 1.10W 5X CHIP 1210 BO OHM 1	Γ	PARTS LIS	Т	
A11371-0R02	C. P. N.		_	REFERENCE DESIGNATION
A11371-1011 100 OHM 0.10W 5% CHIP 0805 3 R13,R147,R247 A11371-1013 100 OHM 0.25W 5% CHIP 1206 1 R8 A11371-1022 1K 0.125W 5% CHIP 1206 1 R8 A11371-1331 13K OHM 0.10W 5% CHIP 6 R138,R144,R145,R238,R244,R245 A11371-1501 15 OHM 0.10W 5% CHIP 9805 4 R146,R151,R246,R250 A11371-1501 15 OHM 0.10W 5% CHIP 9805 5 C666,C667,C608,R160,R260 A11371-1501 15 OHM 0.10W 5% CHIP 9805 6 R138,R144,R145,R238,R244,R245 A11371-1231 1810 180 OHM 0.10W 5% CHIP 9805 7 R146,R151,R246,R250 A11371-2223 2.2K 8.25W 5% CHIP 1210 2 R132,R232 A11371-3313 330 OHM 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3333 33K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3934 39K 0.10W 5% CHIP 9805 7 R3,R11,R26,R117,R217,R314, A11371-3934 39K 0.10W 5% CHIP 1210 4 R317,R318,R417,R410 A11371-3934 39K 0.10W 5% CHIP 1210 4 R317,R318,R417,R410 A11371-5815 560 OHM 1W 5% 2512 T/R 2 R32,R34 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R42,R421 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R42,R421 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R42,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 2 R42,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 2 R42,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 1 R26,R426 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 1 R420,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 1 R420,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 1 R420,R421 A11371-5816 6 S.6 OHM 1W 5% CHIP 2512 1 R430,R431,R431,R431,R431,R431,R431,R431,R431	A11371-ØRØ2	Ø.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423
A11371-1013 100 OHM .25W 5% 1210 SMT T/R 2 R322,R422 A11371-1022 1K 0.125W 5% CHIP 1205 1RB A11371-1213 123 OHM 0.25W 5% CHIP 6 R138,R144,R145,R238,R244,R245 A11371-1331 13K OHM 0.10W 5% CHIP 5 C806,C607,C608,R160,R250 A11371-1311 180 OHM 0.10W 5% CHIP 5 C806,C607,C608,R160,R250 A11371-1811 180 OHM 0.10W 5% CHIP 7 4 R148,R163,R246,R261 A11371-2223 2.2K 0.25W 5% CHIP 1210 2 R132,R232 A11371-2223 2.2K 1W 5% CHIP 2512 1 R2 A11371-3313 330 OHM 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3331 330 OHM 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.10W 5% CHIP 0805 7 R3,R11,R26,R117,R314,R41371-3934 39K 0.40W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-3934 39K 0.40W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-3934 39K 0.40W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-5615 580 OHM 10.50W 5% CHIP 210 4 R317,R318,R417,R418 A11371-5863 5.6 0.40M 10.50W 5% CHIP 2512 7 R2 R162,R262 A11371-5865 5.6 OHM 10.5% CHIP 2512 7 R2 R162,R262 A11371-5865 5.6 OHM 10.5% CHIP 2512 7 R2 R150,R165,R250,R265 A11371-5861 6.8 0.10W 5% CHIP 2512 7 R220,R421 A11371-5862 6.8 0 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-5863 5.6 OHM 10.5% CHIP 2512 7 R220,R421 A11371-6801 6.8 0.10W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.10W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.10W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.10W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6801 6.0 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6201 82 OHM 0.10W 5% CHIP 2512 7 R220,R421 A11371-6201 82 OHM 0.10W 5% CHIP 2512 7 R220,R421 A11371-6201 82 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6201 82 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-6201 82 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-8201 820 OHM 0.50W 5% CHIP 2512 7 R220,R421 A11371-8201 820 OHM 0.50W	A11371~0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14.R15,R33
A11371-1022	A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1022	A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	2	R322, R422
A11371-1213 128 OHM 0.25W 5% CHIP 0805 4 R138,R144,R145,R238,R244,R245 A11371-1331 13K DHM 0.10W 5% CHIP 0805 4 R146,R161,R246,R261 A11371-1501 15 OHM 0.10W 5% CHIP 5 C606,C607,C600,R160,R260 A11371-1811 180 OHM 0.10W 5% CHIP 4 R148,R163,R248,R263 2.2 K 0.25W 5% CHIP 1210 2 R132,R232 A11371-2223 2.2 K 1W 5% CHIP 1210 2 R132,R232 A11371-3223 3.30 OHM 0.25W 5% CHIP 2512 1 R2 A11371-3313 330 OHM 0.25W 5% CHIP 210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.25W 5% CHIP 0805 7 R3.R11,R26,R117,R217,R314, R414 R1371-3934 39K OHM 0.50W 5% CHIP 0805 7 R3.R11,R26,R117,R217,R314, R414 A11371-3934 39K OHM 0.50W 5% CHIP 210 4 R317,R318,R417,R418 A11371-5865 56 OHM 1W 5% CHIP 2 R162,R262 A11371-5865 5.6 OHM 1W 5% CHIP 2 R162,R262 A11371-5863 5.6 0.25W 5% CHIP 2512 2 R420,R241 A11371-5861 560 OHM 0.50W 5% CHIP 2512 2 R420,R421 A11371-5861 560 OHM 0.50W 5% CHIP 3 R150,R165,R250,R265 R226,R291 A11371-5861 600 OHM 0.50W 5% CHIP 3 R28,R34 R28,R	A11371-1022	1K 0.125W 5% CHIP 1206	1	
A11371-1331 13K OHM Ø.10W 5% CHIP 0805 4 R146,R161,R246,R261 A11371-1501 15 OHM Ø.10W 5% CHIP 5 C606,C607.C608.H160,R260 A11371-1201 180 OHM Ø.10W 5% CHIP 4 R148,R163,R248,R263 A11371-2223 2.2K Ø.25W 5% CHIP 1210 2 R132,R232 A11371-2225 2.2K IW 5% CHIP 2512 1 R2  A11371-3313 330 OHM Ø.25W 5% CHIP 2 R4.R19 A11371-3313 330 OHM Ø.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3313 338 OHM Ø.50W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3313 338 OHM Ø.50W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3313 39 OHM Ø.50W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3313 39 OHM Ø.50W 5% CHIP 0805 7 R3,R11,R26,R117,R217,R314,  A11371-3923 3.9K Ø.25W 5% CHIP 3 R16,R135,R235 A11371-3934 39K OHM Ø.50W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-3934 39K OHM Ø.50W 5% CHIP 2 R162,R262 A11371-565 560 OHM IW 5% 2512 T/R 2 R162,R262 A11371-565 560 OHM IW 5% 2512 T/R 2 R32,R34 A11371-5665 5.6 OHM IW 5% CHIP 4 R150,R165,R250,R265 A11371-6814 680 OHM Ø.50W 5% CHIP 4 R150,R165,R250,R265 A11371-6814 680 OHM Ø.50W 5% CHIP 5 R125,R227 A11371-8201 82 OHM Ø.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM Ø.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM Ø.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM Ø.10W 5% CHIP 5 R29,R241,R295 A11371-8200 WIRE, 18 RED FAST X 5 X TERM 1 WP1 A11379-A050U WIRE, 18 RED FAST X 5 X TERM 1 WP1 A11427-103K5 Ø.21MF 50V 10% CHIP 0805 4 C109,C111,C209,C211 A11427-103K5 Ø.21MF 50V 10% CHIP 0805 4 C109,C131,C132,C133,C133,C239,C231,C232,C226,C227,C2	A11371-1213		6	R138, R144, R145, R238, R244, R245
A11371-1501 15 OHM 0.10W 5% CHIP 4 R14B.R163,R248.R263 A11371-1811 180 OHM 0.10W 5% CHIP 4 R14B.R163,R248.R263 A11371-2223 2.2K 0.25W 5% CHIP 1210 2 R132,R232 A11371-2225 2.2K 1W 5% CHIP 2512 1 R2  A11371-3313 330 OHM 0.25W 5% CHIP 2512 1 R2  A11371-3333 33K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3331 330K 0.10W 5% CHIP 0805 7 R3.R11.R26,R117,R217,R314.  A11371-3393 3.9K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3934 39K OHM 0.50W 5% CHIP 3 R162,R255 A11371-3934 39K OHM 0.50W 5% CHIP 210 4 R317,R318,R417,R418 A11371-3934 39K OHM 0.50W 5% CHIP 2 R162,R262 A11371-5615 568 OHM 1W 5% C512 T/R 2 R32,R34 A11371-5655 56 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-5R65 5.6 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-6821 6.8K 0.10W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6921 6.8K 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R150,R128,R181,R205,R228,R281 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 5 R129,R141,R195,R229,R241,R295 A11371-8201 WIRE, 18 RED FAST X 5 X TERM 1 W91 A11379-A050U WIRE, 18 DLU FAST X 5 X TERM 1 W91 A11379-A050U WIRE, 18 DLU FAST X 5 X TERM 1 W91 A11379-C050U WIRE, 18 DLU FAST X 5 X TERM 1 W91 A11379-C050U WIRE, 18 DLU FAST X 5 X TERM 1 W91 A11427-103K5 0.01MF 50V 10% CHIP 0805 2 C143,C243 A11427-103K5 0.01MF 50V 10% CHIP 0805 2 C143,C243 A11427-103K5 0.01MF 50V 10% CHIP 0805 2 C143,C243 A11427-103K5 0.01MF 50V 10% CHIP 0805 2 C143,C243 A11427-103K5 0.01MF 50V 10% CHIP 0805 2 C129,C130,C131,C132,C133,C1232,C232,C236,C229,C230,C231,C232,C236,C229,C230,C231,C232,C236,C229,C230,C231,C232,C236,C237,C232,C236,C237,C232,C236,C237,C232,C236,C237,C233,C232,C366,C506,C506,C506,C506,C506,C506,C506,C5	A11371-1331		4	
A11371-2223	A11371-1501	-	5	
A11371-2223	A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-3313 338 OHM 0.25W 5% CHIP 2 R44,R19 A11371-3333 33K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.10W 5% CHIP 0805 7 R3.R11.R26,R117,R217,R314,  A11371-3923 3.9K 0.25W 5% CHIP 3 R16.R135,R235 A11371-3934 39K OHM 0.50W 5% CHIP 210 4 R317,R318,R417,R418 A11371-3934 39K OHM 0.50W 5% CHIP 2 R162,R262 A11371-5615 560 OHM 1W 5% CHIP 2 R32,R34 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32,R34 A11371-5653 5.6 0.25W 5% CHIP 4 R150,R165,R250,R265 A11371-5863 5.6 0.25W 5% CHIP 5 R105,R165,R250,R265 A11371-5864 680 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6821 6.8K 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 WIRE, 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE, 16 RED FAST X 5 X TERM 1 WP3 A11427-103K5 0 0.01MF 50V 10% CHIP 0805 4 C109,C111,C209,C211 A11427-103K5 0 0.01MF 50V 10% CHIP 0805 4 C109,C111,C209,C211 A11427-103K2 0 0.01MF 50V 10% CHIP 0805 4 C109,C111,C209,C211 A11427-103K2 0 0.01MF 50V 10% CHIP 0805 5 C115,C122,C126,C127,C128,C22,C226,C227,C128,C229,C230,C231,C232,C230,C231,C232,C230,C231,C232,C230,C231,C232,C230,C231,C232,C230,C231,C232,C230,C231,C232,C236,C227,C226,	A11371-2223	2.2K 0.25W 5% CHIP 1210	2	
A11371-3333 33K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.10W 5% CHIP 0805 7 R3,R11,R26,R117,R217,R314, A11371-3934 3.9K 0.25W 5% CHIP 3 R16,R135,R235 A11371-3934 39K 0HM 0.50W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-4701 47 OHM 0.10W 5% CHIP 2 R162,R262 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32,R34 A11371-5615 560 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-5865 5.6 0HM 1W 5% CHIP 2512 2 R420,R421 A11371-6814 680 OHM 0.50W 5% CHIP 8805 2 R127,R227 A11371-7511 750 OHM 0.10W 5% CHIP 8805 2 R127,R237 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 5 R129,R141,R195,R229,R241,R295 A11371-8211 920 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11371-8210 WIRE, 16 R6D FAST X 5 X TERM 1 WP1 A11379-C050U WIRE, 16 BUL FAST X 5 X TERM 1 WP1 A11427-103K5 0.01MF 50V 10% CHIP 8805 4 C189,C111,C209,C211 A11427-103K5 0.01MF 50V 10% CHIP 8805 3 C2,C6,C7,C12,C24,C25,C28,C29,C139,C139,C131,C132,C133,C139,C139,C231,C232,C230,C231,C232,C23	A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3333 33K 0.25W 5% CHIP 1210 6 R119,R140,R143,R219,R240,R243 A11371-3341 330K 0.10W 5% CHIP 0805 7 R3,R11,R26,R117,R217,R314, A11371-3934 3.9K 0.25W 5% CHIP 3 R16,R135,R235 A11371-3934 39K 0HM 0.50W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-4701 47 OHM 0.10W 5% CHIP 2 R162,R262 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32,R34 A11371-5615 560 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-5865 5.6 0HM 1W 5% CHIP 2512 2 R420,R421 A11371-6814 680 OHM 0.50W 5% CHIP 8805 2 R127,R227 A11371-7511 750 OHM 0.10W 5% CHIP 8805 2 R127,R237 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 5 R129,R141,R195,R229,R241,R295 A11371-8211 920 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11371-8210 WIRE, 16 R6D FAST X 5 X TERM 1 WP1 A11379-C050U WIRE, 16 BUL FAST X 5 X TERM 1 WP1 A11427-103K5 0.01MF 50V 10% CHIP 8805 4 C189,C111,C209,C211 A11427-103K5 0.01MF 50V 10% CHIP 8805 3 C2,C6,C7,C12,C24,C25,C28,C29,C139,C139,C131,C132,C133,C139,C139,C231,C232,C230,C231,C232,C23				
A11371-3341 330K Ø.10W 5% CHIP 0805 7 R3.R11.R26.R117.R217.R314.  R414 A11371-3934 39K Ø.25W 5% CHIP 3 R16.R135.R235 A11371-3934 39K OHM Ø.50W 5% CHIP 1210 4 R317.R318.R417.R418 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32.R34 A11371-5665 560 OHM 1W 5% 2512 T/R 2 R32.R34 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R420.R421 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R420.R421 A11371-5865 6.8 % 0.10W 5% CHIP 8005 2 R127.R227 A11371-5801 6.8K Ø.10W 5% CHIP 8005 2 R127.R227 A11371-8201 82 OHM Ø.10W 5% CHIP 3 R28.R133.R233 A11371-8201 82 OHM Ø.10W 5% CHIP 4 R136.R194.R236.R294 A11371-8201 82 OHM Ø.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11371-8201 B20 OHM Ø.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11371-8201 WIRE. 16 BEU FAST X 5 X TERM 1 WP1 A11371-8200 WIRE. 16 BEU FAST X 5 X TERM 1 WP3 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-103K2 Ø.01MF 50V 10% CHIP 8005 4 C109.C111.C209.C211 A11427-104K2 Ø.1 MF 50V 10% CHIP 2 C115.C12.C126.C127.C128. C129.C130.C231.C232.C230.C231.C232. C233.C239.C505.C506.C605 A11427-472K2 4700PF 50V 10% X7R 0805 4 C118.C119.C216.C219 C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3923 3.9K 0.25W 5% CHIP 3 R16.R135.R235 A11371-3934 39K 0HM 0.50W 5% CHIP 1210 4 R317.R318,R417.R418 A11371-4701 47 OHM 0.10W 5% CHIP 2 R162.R262 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32.R34 A11371-5663 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265 A11371-5863 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105.R128,R181.R205.R228.R281 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105.R128,R181.R205.R228.R281 A11371-6814 680 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-6821 6.8K 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8201 82 OHM 0.10W 5% CHIP 5 R109.R141.R195.R229.R241,R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C660U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11427-103K5 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211 A11427-103K5 0.01MF 50V 10% 0805 30 C2.C6.C7.C12.C24,C25.C28,C29.C115.C122.C126.C127.C128. C129.C130.C131.C132.C133. C139.C215.C222.C226.C227,C226.C227,C228.C239.C231.C232.C231.C232.C236.C231.C232.C236.C237.C332.C333.C339.C505.C506.C605 A11427-123K2 0.012 MF 50V 10% CHIP 0805 2 C112.C217 A11427-472K2 4700PF 50V 10% CHIP 0805 4 C116.C119.C216.C219.C17 A11427-472K2 4700PF 50V 10% CHIP 0805 2 C117.C217 A11427-472K2 4700PF 50V 10% X R 0805 4 C116.C119.C216.C219.C116.C219 C 2651-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-3333	33K 0.25W 5% CHIP 1210	Б	R119, R140, R143, R219, R240, R243
A11371-3934 39K 0.25W 5% CHIP 3 R16.R135,R235 A11371-3934 39K 0HM 0.50W 5% CHIP 1210 4 R317,R318,R417,R418 A11371-4701 47 OHM 0.10W 5% CHIP 2 R162,R262 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32,R34 A11371-5665 5.6 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-5665 5.6 OHM 1W 5% CHIP 2512 2 R420,R421 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281 A11371-6814 680 OHM 0.50W 5% CHIP 8005 2 R127,R227 A11371-6821 6.8K 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8205 82 OHM 1W 5% CHIP 512 1 R607 A11371-8211 820 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11378-A050U WIRE, 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE, 16 BU FAST X 5 X TERM 1 WP3 A11427-103K5 0.01MF 50V 10% CHIP 8005 2 C143,C243 A11427-103K5 0.01MF 50V 10% CHIP 8005 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 33 C2,C6,C7,C12,C24,C25,C28,C29,C115,C122,C126,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C128,C127,C127 A11427-472K2 2700PF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C115,C127,C127 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10	A11371-3341	330K 0.10W 5% CHIP 0805	7	
A11371-3934 39K OHM 0.50W 5% CHIP 1210 4 R317, R318, R417, R418 A11371-4701 47 OHM 0.10W 5% CHIP 2 R162, R262 A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32, R34 A11371-5863 5.6 0.25W 5% CHIP 4 R150, R165, R250, R265 A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R420, R421 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105, R128, R181, R205, R228, R281 A11371-6821 6.0K 0.10W 5% CHIP 8805 2 R127, R227 A11371-8021 82 OHM 0.10W 5% CHIP 3 R28, R133, R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136, R194, R236, R294 A11371-8205 82 OHM 0.10W 5% CHIP 5 R29, R141, R195, R229, R241, R295 A11371-8211 820 OHM 0.10W 5% CHIP 6 R129, R141, R195, R229, R241, R295 A11379-C050U WIRE, 16 RED FAST X 5 X TERM 1 WP1 A11427-103K5 0.01MF 50V 10% CHIP 8805 4 C109, C111, C209, C211 A11427-104K2 0.1 MF 50V 10% 0805 3 C2, C6, C7, C12, C24, C25, C28, C29, C115, C122, C126, C127, C128, C139, C215, C222, C226, C227, C228, C229, C239, C231, C232, C233, C239, C505, C506, C605 A11427-272K2 2700PF 50V 10% X TIP 0805 4 C118, C119, C217 A11427-472K2 4700PF 50V 10% X TIP 0805 2 C117, C217 A11427-472K2 4700PF 50V 10% X TIP 0805 4 C118, C119, C215, C216, C217, C126, C227, C228, C229, C230, C231, C232, C236, C227, C228, C239, C231, C232, C236, C227, C228, C229, C230, C231, C232, C236, C227, C228, C239, C231, C232, C236, C227, C228, C239, C231, C232, C236, C237, C337,				
A11371-4701 47 OHM 0.10W 5% CHIP 2 R162,R262  A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32,R34  A11371-5863 5.6 0.25W 5% CHIP 4 R150,R165,R250,R265  A11371-5865 5.6 OHM 1W 5% CHIP 2512 2 R420,R421  A11371-6814 680 OHM 0.50W 5% CHIP 6 R105,R128,R181,R205,R228,R281  A11371-6821 6.8K 0.10W 5% CHIP 8005 2 R127,R227  A11371-7511 750 OHM 0.10W 5% CHIP 3 R28,R133,R233  A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294  A11371-8205 82 OHM 1W 5% CHIP 5512 1 R607  A11371-8211 820 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295  A11379-A050U WIRE, 16 RED FAST X 5 X TERM 1 WP1  A11379-C050U WIRE, 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K2 0.01MF 50V 10% CHIP 0005 4 C109,C111,C209,C211  A11427-104K2 0.1 MF 50V 10% 0005 3 C2,C6,C7,C12,C24,C25,C28,C29,C139,C131,C132,C133,C133	A11371-3923	3.9K 0.25W 5% CHIP	3	R16. R135, R235
A11371-5615 560 OHM 1W 5% 2512 T/R 2 R32.R34  A11371-5R63 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265  A11371-5R65 5.6 OHM 1W 5% CHIP 2512 2 R420.R421  A11371-6801 680 OHM 0.50W 5% CHIP 6 R105.R128.R181.R205.R228.R281  A11371-6821 6.8K 0.10W 5% CHIP 0805 2 R127.R227  A11371-7511 750 OHM 0.10W 5% CHIP 3 R28.R133.R233  A11371-8201 82 OHM 0.10W 5% CHIP 4 R136.R194.R236.R294  A11371-8205 82 OHM 1W 5% CHIP 2512 1 R607  A11379-0205 82 OHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241,R295  A11379-02050U WIRE. 16 RED FAST X 5 X TERM 1 WP1  A11379-02050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K5 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211  A11427-103K5 0.01MF 50V 10% 0805 33 C2.C5.C7.C12.C24.C25.C28.C29.  C129.C130.C131.C132.C133.  C139.C215.C222.C226.C227.  C228.C229.C230.C231.C232.  A11427-123K2 0.01Z MF 50V 10% CHIP 0805 2 C117.C217  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117.C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C116.C119.C215.C219  C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418
A11371-5R63 5.6 0.25W 5% CHIP 4 R150.R165.R250.R265 A11371-5R65 5.6 OHM 1W 5% CHIP 2512 2 R420.R421 A11371-6814 680 OHM 0.50W 5% CHIP 6 R105.R128,R181.R205,R228.R281 A11371-6812 6.8K 0.10W 5% CHIP 8805 2 R127,R227 A11371-7511 750 OHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294 A11371-8205 82 OHM 1W 5% CHIP 2512 1 R607 A11371-8201 820 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K5 0.01MF 50V 10% CHIP 8005 4 C109,C111,C209,C211 A11427-103K5 0.01MF 50V 10% 08065 33 C2,C6,C7,C12,C24,C25,C28,C29,C139,C139,C215,C22,C226,C227,C228,C229,C230,C231,C32,C26,C27,C128,C233,C239,C231,C32,C232,C233,C239,C231,C232,C233,C233,C231,C232,C234,C25,C26,C27,C12,C24,C25,C26,C27,C12,C24,C25,C26,C27,C12,C24,C25,C26,C27,C228,C29,C233,C233,C231,C232,C233,C233,C231,C232,C233,C231,C232,C233,C233		47 OHM Ø.10W 5% CHIP	2	
A11371-5R65	A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34
A11371-6814 680 DHM 0.50W 5% CHIP 6 R105.R128.R181.R205.R228.R281 A11371-6821 6.8K 0.10W 5% CHIP 0805 2 R127.R227 A11371-7511 750 DHM 0.10W 5% CHIP 3 R28,R133,R233 A11371-8201 82 DHM 0.10W 5% CHIP 4 R136,R194,R236.R294 A11371-8205 82 DHM 1W 5% CHIP 512 1 R607 A11371-8211 820 DHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211 A11427-103K5 0.01MF 50V 10% 0805 33 C2.C6,C7,C12.C24,C25,C28,C29,C115.C122.C126.C127.C128,C139.C215.C222.C226.C227,C228,C229.C230.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233,C239.C231.C232,C233.C231.C232,C233.C231.C232,C233.C231.C232,C233.C231.C232,C233.C231.C232.C233.C231.C232.C233.C231.C232.C233.C233	A11371-5R63	5.6 Ø.25W 5% CHIP	4	
A11371-6821 6.8K Ø.10W 5% CHIP Ø8Ø5 2 R127,R227  A11371-7511 750 OHM Ø.10W 5% CHIP 3 R28,R133,R233  A11371-82Ø1 82 OHM Ø.10W 5% CHIP 4 R136,R194,R236,R294  A11371-82Ø5 82 OHM 1W 5% CHIP 5 R6Ø7  A11371-8211 82Ø OHM Ø.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295  A11378-AØ5ØU WIRE, 16 RED FAST X 5 X TERM 1 WP1  A11379-CØ5ØU WIRE, 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K2 Ø.01MF 50V 10% CHIP Ø8Ø5 4 C109,C111,C209,C211  A11427-103K5 Ø.01MF 50V 10% 08Ø5 33 C2,C6,C7,C12,C24,C25,C28,C29,C114,C12,C12,C12,C12,C12,C12,C12,C12,C12,C12	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371-7511 750 DHM 0.10W 5% CHIP 3 R28.R133.R233 A11371-8201 82 DHM 0.10W 5% CHIP 4 R136.R194.R236.R294 A11371-8205 82 OHM 1W 5% CHIP 2512 1 R607 A11371-8211 820 DHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211 A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143.C243 A11427-104K2 0.1 MF 50V 10% 0805 33 C2.C6.C7.C12.C24.C25.C28.C29. C139.C2130.C131.C132.C133. C139.C215.C222.C226.C227. C228.C229.C230.C231.C232. C233.C239.C505.C506.C605 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112.C212 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116.C119.C215.C219 C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-6814	680 OHM 0.50W 5% CHIP	6	R105, R128, R181, R205, R228, R281
A11371-8201 82 OHM 0.10W 5% CHIP 4 R136,R194,R236,R294  A11371-8205 82 OHM 1W 5% CHIP 2512 1 R607  A11371-8211 820 OHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295  A11378-A050U WIRE, 16 RED FAST X 5 X TERM 1 WP1  A11379-C050U WIRE, 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109,C111,C209,C211  A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143,C243  A11427-104K2 0.1 MF 50V 10% 0805 33 C2,C6,C7,C12,C24,C25,C28,C29,C15,C122,C126,C127,C128,C129,C139,C215,C222,C226,C227,C129,C139,C215,C222,C226,C227,C129,C139,C215,C222,C226,C227,C128,C29,C239,C239,C231,C232,C233,C239,C505,C506,C605  A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219  C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10	A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-8205 82 OHM 1W 5% CHIP 2512 1 R607  A11371-8211 820 OHM 0.10W 5% CHIP 6 R129.R141.R195.R229.R241.R295  A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1  A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211  A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143.C243  A11427-104K2 0.1 MF 50V 10% 0805 33 C2.C6.C7.C12.C24.C25.C28.C29.  C115.C122.C126.C127.C128.  C129.C130.C131.C132.C133.  C139.C215.C222.C226.C227.  C228.C229.C230.C231.C232.  A11427-123K2 0.012 MF 50V 10% CHIP 2 C112.C212  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117.C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C116.C119.C216.C219  C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-8211 820 DHM 0.10W 5% CHIP 6 R129,R141,R195,R229,R241,R295 A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109,C111,C209,C211 A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 33 C2,C6,C7,C12,C24,C25,C28,C29,C115,C122,C126,C127,C128,C139,C139,C215,C222,C226,C227,C128,C29,C139,C215,C222,C226,C227,C228,C29,C239,C231,C232,C233,C239,C505,C506,C605 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212 A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10	A11371-8201	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294
A11378-A050U WIRE. 16 RED FAST X 5 X TERM 1 WP1 A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3 A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211 A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143,C243 A11427-104K2 0.1 MF 50V 10% 0805 33 C2.C6,C7,C12,C24,C25,C28,C29,C115,C122.C126,C127,C128. C129.C130.C131.C132.C133,C139.C215.C222.C226.C227. C228.C229.C230.C231.C232. C233.C239,C505,C506,C605 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112.C212 A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117.C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116.C119.C216.C219 C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11379-C050U WIRE. 16 BLU FAST X 5 X TERM 1 WP3  A11427-103K2 0.01MF 50V 10% CHIP 0805 4 C109.C111.C209.C211  A11427-103K5 0.01MF 50V 5% X7R 1206 2 C143.C243  A11427-104K2 0.1 MF 50V 10% 0805 33 C2.C6.C7.C12.C24.C25.C28.C29.  C115.C122.C126.C127.C128.  C129.C130.C131.C132.C133.  C139.C215.C222.C226.C227.  C228.C229.C230.C231.C232.  C233.C239.C505.C506.C605  A11427-123K2 0.012 MF 50V 10% CHIP 2 C112.C212  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117.C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C118.C119.C216.C219  C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11371-8211	820 OHM 0.10W 5% CHIP	6	R129.R141.R195.R229.R241.R295
A11427-103K2	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11427-103K5	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-104K2 Ø.1 MF 50V 10% 0805  C115,C122,C126,C127,C128,  C129,C130,C131,C132,C133,  C139,C215,C222,C226,C227,  C228,C229,C230,C231,C232,  C233,C239,C505,C506,C605  A11427-123K2 Ø.012 MF 50V 10% CHIP  A11427-272K2 2700PF 50V 10% CHIP 0805  A11427-472K2 4700PF 50V 10% X7R 0805  C 2851-1 1N4004 SILICON RECT.  7 D1,D2,D3,D4,D6,D7,D10	A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109.C111.C209.C211
C115,C122,C126,C127,C128, C129,C130,C131,C132,C133, C139,C215,C222,C226,C227, C228,C229,C230,C231,C232, C233,C239,C505,C506,C605 A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212 A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10	A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
C129,C130,C131,C132,C133, C139,C215,C222,C226,C227, C228,C229,C230,C231,C232, C233,C239,C505,C506,C605  A11427-123K2	A11427-104K2	0.1 MF 50V 10% 0805	33	C2.C6.C7.C12,C24.C25,C28.C29,
C139,C215,C222,C226,C227, C228,C229,C230,C231,C232, C233,C239,C505,C506,C605  A11427-123K2				C115,C122,C126,C127,C128,
C228,C229,C230,C231,C232, C233,C239,C505,C506,C605  A11427-123K2				C129, C130, C131, C132, C133,
C233,C239,C505,C506,C605  A11427-123K2 0.012 MF 50V 10% CHIP 2 C112,C212  A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217  A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219  C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10				C139, C215, C222, C226, C227,
A11427-123K2				
A11427-272K2 2700PF 50V 10% CHIP 0805 2 C117,C217 A11427-472K2 4700PF 50V 10% X7R 0805 4 C118,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10				
A11427-472K2 4700PF 50V 10% X7R 0805 4 C116,C119,C216,C219 C 2851-1 1N4004 SILICON RECT. 7 D1,D2,D3,D4,D6,D7,D10	A11427-123K2	0.012 MF 50V 10% CHIP	2	C1_12.C212
C 2851-1 1N4004 SILICON RECT. 7 D1.D2.D3.D4.D6.D7.D10	A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
	A11427-472K2	4700PF 50V 10% X7R 0805	4	
C 3510-2 CHOKE, 470UH 10% AXIAL 4 L100,L101,L200,L201		1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10
	C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0 DIODE ZENER, 10V, 1N5240B 1 D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5 33UF 50V 20% VERT ELECT 1 C31		33UF 50V 20% VERT ELECT	1	C31
C 4477-3 470 MF 35V VERT 2 C4.C5	C 4477-3	470 MF 35V VERT	2	C4,C5

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1718 WEST MISHAWAKA ROAD ELKHART, INI DRAWN KLW 03-29-99 DWG. NO.

MD390D0

PROJ.

ELKHART, INDIANA 46517 PHONE (219) 294-8000 PEV



	PARTS LIST				
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION		
C 5095-2	POS. 15 VOLT REG.	1	U1		
C 5096-0	NEG. 15 VOLT REG.	1	U2		
C 5362-6	2.2 MF 50V VERT	1	C27		
C 6802~0	.47 MF 50V AX CERM	2	C102, C202		
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240		
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52		
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229		
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4,U5,U106,U205		
C 8576-8	100 MF 35V 10% ELEC	1	C26		
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101, U201, U500		
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102, U104, U202, U204		
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223		
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q1@4,Q2@4		
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9. D13, D101, D102, D103, D104,		
			D105.D106,D107,D108,D109.		
			D110, D111, D112, D113, D116.		
	-		D117, D118, D119, D120, D121.		
	-		D122, D123, D124, D125, D126,		
	-		D127.D128,D129,D130,D201,		
			D202, D203, D204, D205, D206,		
			D207, D208, D209, D210, D211,		
			D212, D213, D216, D217, D218.		
			D221, D222, D223, D224, D225.		
			D226, D227, D228, D228, D230		
C 9896-9	TEST POINT LOOP	2	TP38, TP39		
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1 X , U2 X		
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102.0109.0111.0202.0209.0211		
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224		
C10208-4	100 MF 25V 20% VERT ELEC	2	C105.C205		
C18422~1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215		
C10613-5	1K TOP ADJUST TRIMMER T/R	2	H134, R234		
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21		
H42902-9	ASM, THERMAL SENSE	2	U106, U206		
	<u> </u>				
101016-1	LBL, BARCODE, , ,	1	2		
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7		
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4		
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2		
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5		
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1		
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235		
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604		
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238		
102465-1	.47UF 50V 20% RADIAL T/R	2	C101, C201		
102466-1	10UF 250V 20% RADIAL T/R	1	C1		
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603		
102468-1	47UF 10V 20% NP RAD T/R	4			
102470-1		2	C113, C114, C213, C214		
	INDUCTOR, 2.75UH 11A RADIAL	1	L102,L202		
102471-2	HDR, 12POS 2.5MM RT ANG KEYE		J502		
102472-3	HDR, 16POS .100 CTR SGL ROW	1			

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888

DRAWN KLW 03-29-99 DWG, NO. SHEET 4 OF 20 REV PROJ. **MD390D0** 



PARTS LIST					
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION		
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.1200		
102475-1	BLOCK, 5 POS TERMINAL	1	T81		
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201		
102477-1	LED, SMT R/A RED	4	E100.E102.E200.E202		
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232		
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1.Q2.Q3		
102480-1	FET. N-CH 25V 50MA SOT-23	2	@133.@233		
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208		
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203		
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3		
102488-1	SPDT HORIZ SLIDE	1	51		
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	HS3		
102570-3	HS ASM, TE ISOLATED CH2	1	HS4		
102571-3	HS ASM. TI NON-ISOLATED CHI,	1	HS1		
102572-3	HS ASM. T1 NON-ISOLATED CH2,	1	H\$2		
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26		
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100.R200		
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,		
			HWB		
102723-2	OPTO CELL ON-500 OHM	2	U100,U200		
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7		
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244		
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210		
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	0105,0120,0205,0220		
103199-1	0.4 OHM 1W 5% 2512 T/R	38	R1, R7, R152, R153, R156, R157,		
			R159.R167,R168,R171,R172,		
			R252, R253, R256, R257, R259,		
			R267, R268, R271, R272, R300,		
			R301, R302, R305, R306, R307,		
			R308, R311, R312, R400, R401,		
			R402,R405,R406,R407,R408.		
			R411,R412		
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237		
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2		
103435-70608	SCREW, 6-32 X.S TORX PNHD SEM	2	HW27, HW28		
125106-1	MACSD 8 AMP 400V TRIAC	2	Q131,Q231		
125242-1	CAP625ID X 1" VINYL	1	3		
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142,R242		
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5		
125483-1	ACTIVATOR LOCTITE "OUTPUT"	Ø	6		
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C3Ø		
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100, K200		
126825-1	SILICONE, CLEAR 30Z SYRINGE	Ø	4		
126929-1	1/4" TAS/XLA COMBO PCB VERT	2	J500, J600		
127442-1	PREP, CE HI-V WIRE	1	wP6		
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-88889
DRAWN KLW 03-29-99 DWG. NO. SHEET 5 OF 20 RE KLW 83-29-99 DWG. NO. DRAWN PROJ. MD39@D@



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C1	102465-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	□ 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	н 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	1.8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	. 47 MF 50V AX CERM	мэ
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104	102438-101K2	100PF 200V 10% NPO 0805	м 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10#
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	н 6*
C110		470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N B*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	0.8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N B
C115		0.1 MF 50V 10% 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118		0.1 MF 250V 5% MTL POLY	I 8
C119		4700PF 50V 10% X7R 0805	I 7*
C1 20		100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G B
C122		0.1 MF 50V 10% 0805	F 8*
C1 23	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	FΒ
C124	C1@196~1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129		0.1 MF 50V 10% 0805	м 9*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN KLW 03-29-99 DWG. NO. SHEET 6 OF 20 RE

МДЭЭЙДО

PROJ.



PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H B*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0005	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPQ MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C14Ø	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0005	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	19
C2@2	C 6802-0	.47 MF 50V AX CERM	К 9
C203	102467-1	22MF 25V 20% RAD T/R	К 9
C2Ø4	102438-101K2	100PF 200V 10% NPC 0805	J 9*
C205		100 MF 25V 20% VERT ELEC	J 9
C2Ø6	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C20B	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	н э*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L B*
C213	102468-1	47UF 10V 20% NP RAD T/R	ΚB
C214	102468-1	47UF 10V 20% NP RAD T/R	Kβ
C215	A11427-104K2	Ø.1 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	Ø.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E B
C222	A11427-104K2	0.1 MF 50V 10% 0805	É 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	1 3
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
£23Ø	A11427-104KZ	0.1 MF 50V 10% 0805	Ē 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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PROJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46617 PHONE (219) 294-8888 DRAWN KLW 03-29-99 DWG, NO. SHEET 7 OF 20 RE 127353-2



		PARTS LIST	-
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5Ø2	A11369-120K2	12PF 50V 10% NPO 0005 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	Ð 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	<del> </del>	0.1 MF 50V 10% 0805	A 2
C509		DPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C805	A11427-104K2	Ø.1 MF 50V 10% 0805	A 1
C806	A11371-1501	15 OHM 0.1W 5% CHIP 0805	СЗ
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0805	С 3
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
DЭ	C 2851-1	1N4004 SILICON RECT.	G 12
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
DB	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8_
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D1 Ø	C 2851~1	1N4004 SILICON RECT.	I 10
D1 3	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D1@3	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	М 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L S*
D106	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9203-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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DRAWN PROJ. MD39ØDØ

1718 WEST MISHAWAKA ROAD

ISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (218) 294-8888 KLW 03-28-99 DWG, NO. SHEET 8 OF 20 REV 127353-2

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422~1	DIODE. 3A 400V 1N5404 AXIAL	I 5
D118	C 9283-0	DIODE. 1N914/1N4148 SQT-23 SMT	G 8*
D117	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 121*
D118	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SGT-23 SMT	I 9*
D120	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	G 7*
D125	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	Н 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	М 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N414B SGT-23 SMT	м 9
D2Ø1	C 9283-0	DIODE, 1N814/1N414B SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-Ø	DIDDE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 8*
D207	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N814/1N4148 SOT-23 SMT	к 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 8*
D211	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 8*
D212	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	E 7*
D225	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	к 8
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1718 WEST MISHAWAKA ROAD ELKHART, IND DRAWN KLW 03-29-99 DWG. NO.

MD390D0

PROJ.

ELKHART, INDIANA 48517 PHONE (219) 294-8898 89 DWG. NO. SHEET 9 OF 20 RE



	PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
D228	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	E フ*	
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*	
D230	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 9	
E1	102476-1	LED, SMT R/A GREEN	I 1	
E100	102477-1	LED. SMT R/A RED	J 1	
E101	102476-1	LED, SMT R/A GREEN	J 1	
E102	102477-1	LED, SMT R/A RED	K 1	
E200	102477-1	LED. SMT R/A RED	M 1	
E201	102476-1	LED, SMT R/A GREEN	L 1	
E202	102477-1	LED, SMT R/A RED	M 1	
H1 1		OPEN	K 1	
H1 4		OPEN	18	
H18		OPEN	D 8	
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1,		
H52	102572-3	HS ASM, T1 NON-ISOLATED CH2,		
H53	102569-3	HS ASM, T1 ISOLATED CH1, , ,		
H54	102570-3	HS ASM, T1 ISOLATED CH2		
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4	
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4	
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4	
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4	
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4	
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4	
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	8 4	
HW8	102608-1		B 4	
HW9	A10020-7	SPACER, 6X.187 LONG ALUMINUM	D 5	
		6-32 X .825 PCB CAPTIVE STUD	<del></del>	
HW1 Ø	A10020-7	6-32 X .825 PCB CAPTIVE STUD	1.6	
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2	
HW1 2	A10020-7	6-32 X .825 PCB CAPTIVE STUD	13	
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5	
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6	
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2	
HW1 B	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3	
	A11056~1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4	
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4	
HW23	A11056-1	5-32 HEX NUT W/BELLEVILLE	B 4	
HW24	A11056-1	S-32 HEX NUT W/BELLEVILLE	B 4	
HW25	102579-1	STAND. 1/4 RD SWAGE AL	A 4	
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4	
HW27		SCREW.6-32 X.5 TORX PNHD SEM	A 4	
HW28		SCREW.6-32 X.5 TORX PNHD SEM	A 4	
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10	
13	102472-3	HDR, 16POS .100 CTR SGL ROW	м 8	
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10	
J5	101993-1	JACK, 6P4 COND MODULAR R/A		

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888 DRAWN KLW 03-29-99 DWG. NO. SHEET 10 OF 20 RE

MD390D0

PROJ.



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HDRZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	вз
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
1600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
<b>Q1</b>	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
<b>Q3</b>	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q1@1	€ 7448-1	MMBT3904 CHIP NPN	м 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SQT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q1@5	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ 50T-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
Q11Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	м 9*
0200	C 744B-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SCT-23	L 9*
Q2Ø3	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q2Ø5	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*

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DHAWN KLW 03-29-99 DWG. ND. SHEET 11 OF 20 RE 127353-2



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K B*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	7 B*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D B*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
F17	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10		20K 0.25W 1% CHIP 1210	Н 9*
Ħ11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12		68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 CHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-ØR21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17		B.25K 0.1W 1% CHIP 0805	F 10*
R18		7.15K 1/10W 1% CHIP 0805	D 8*
R19		330 OHM 0.25W 5% CHIP	I 1*
R20		57.6K 0.10W 1% CHIP 0805	I 9*
R21		12.1K DHM 0.10W 1% CHIP 0805	J 9*
R22		392K Ø 10W 1% CHIP 0805	I 9*
R23		392K 0.10W 1% CHIP 0805	I 9*
R24		57.6K 0.10W 1% CHIP 0805	I 9*
R25		100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
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 DRAWN
 KLW 23-29-99
 DWG. NO.
 SHEET 12 OF 20
 REV

MD390D0

PROJ.



PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	1 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	JB
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	м 10*
R102		392K 0.10W 1% CHIP 0805	N 9*
R103		499 OHM 0.10W 1% CHIP 0805	N 9*
R104		10K 1/10W 1% CHIP 0805	N 9*
R105	A11371~6814	680 OHM 0.50W 5% CHIP	J 1*
R106		1K 0.10W 1% CHIP 0805	M 9*
R107		10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	м 9*
R110		1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112	<del></del>	19.1K 0.25W 1% MF	L 9
R113	<del></del>	5.11K QHM 0.10W 1% CHIP 0805	L 10*
R114	<del></del>	8.25K 0.1W 1% CHIP 0805	L 10*
R115		68.1K 0.10W 1% CHIP	L 10*
R116		226 OHM 0.10W 1% CHIP 0805	M 9*
R117		330K 0.10W 5% CHIP 0805	M 9*
R118	·	6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K Ø.25W 5% CHIP 1210	*e M
R120		90.9K 0.10W 1% CHIP 0805	M 9*
R121	<del></del>	10K 1/10W 1% CHIP 0805	M 10
R122	ļ	158K 0.10W 1% CHIP 0805	N 9*
R123		100K 0.1W 1% CHIP 0805	же м
R124	<del> </del>	158K 0.10W 1% CHIP 0805	M 9*
R125		100K 0.1W 1% CHIP 0805	N 9*
R126	†	49.9K 0.1W 1% CHIP 0805	<u>же м</u>
R127	A11371-8821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130	/// UZII	OPEN	0.8*
R131	<del> </del>	OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-2223	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R135	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R1 37		150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139		137 DHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
	A11371-3333	820 OHM 0.10W 5% CHIP	0 8*
R141	V113/1-0711	סבט טחא ט.וטא סג נחור	J 0 0 *
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 ELKHART, INDIANA 48517
 PHONE (219) 294-8888

 DRAWN
 KLW
 Ø3-29-99
 DWG. NO.
 SHEET 13 OF 20
 RE
 MD390D0

PROJ.



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0.8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N B*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0905	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*
R152	103199-1	Q.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2874	2.7 OHM 2W 5% CF	I 8
R159	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	1 7*
R165	A11371-1811	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/A	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	6 8*
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180		392K 0.10W 1% CHIP 0805	G 8*
A181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 8*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185		10K 1/10W 1% CHIP 0805	G 8*
R186		100K 0.1W 1% CHIP 0805	N 10*
R187		158K 0.10W 1% CHIP 0805	M 10*
R188		158K 0.10W 1% CHIP 0805	N 10*
R189		100K 0.1W 1% CHIP 0805	M 10*
			N 6*
R190		57.6K 0.10W 1% CHIP 0805 226 OHM 0.10W 1% CHIP 0805	N 6*
R191			N 6*
R192		604K OHM 0.125W 1% CHIP 1206	<del>                                     </del>
R193		10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196		10K 1/10W 1% CHIP 0805	M 9*
F197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 10
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 DRAWN
 KLW Ø3-29-93
 DWG. NO.
 SHEET 14 OF 20 RE
 PROJ.

MD390D0



	PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
F198		OPEN	M 10	
R199	A11371-0802	0.0 OHM JUMPER CHIP 1206	N 8*	
R200	102595-3	POT, SK LIN 21 DNT 12MM HORIZ	N 1	
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*	
R202	A11388-39231	392K 0.10W 1% CHIP 0805	L 9*	
R203		499 OHM 0.10W 1% CHIP 0805	L 9*	
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*	
R205	A11371-6814	680 OHM 0.50W 5% CHIP	м 1*	
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*	
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*	
R210		1K 0.10W 1% CHIP 0805	J 9*	
R211		10K 1/10W 1% CHIP 0805	J 9*	
R212		19.1K 0.25W 1% MF	J 9	
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*	
R214		8.25K 0.1W 1% CHIP 0805	J 10*	
R215		68.1K 0.10W 1% CHIP	J 10*	
R216		226 DHM 0.10W 1% CHIP 0805	K 9*	
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*	
R218		6.81K OHM 0.10W 1% CHIP 0805	K 10	
R219		33K Ø.25W 5% CHIP 121Ø	J 9*	
R220		90.9K 0.10W 1% CHIP 0805	K 9*	
R221		10K 1/10W 1% CHIP 0805	K 10	
R222		158K 0.10W 1% CHIP 0805	K 9*	
R223	_	100K 0.1W 1% CHIP 0805	K 9*	
R224		158K 0.10W 1% CHIP 0805	K 9*	
R225		100K 0.1W 1% CHIP 0805	L 9*	
R226		49.9K 0.1W 1% CHIP 0805	K 9*	
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*	
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*	
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*	
R230	, <b>.</b> , 02	OPEN	L 7*	
R231		OPEN	L 7*	
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*	
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*	
R234	C10613~5	1K TOP ADJUST TRIMMER T/R	J 7	
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*	
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*	
R237		150 OHM 0.125W 1% CHIP	K 8*	
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*	
R238	A11368-13703	137 DHM 0.25W 1% CHIP	K B*	
R24Ø	A11388-73783	33K 0.25W 5% CHIP 1210	K 7*	
R241	A11371-3333	820 OHM 0.10W 5% CHIP	L 8*	
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*	
R242	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*	
			K 8*	
R244	A11371-1213	120 OHM 0.25W 5% CHIP	<del> </del>	
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*	
R246	A11371~1331	13K OHM 0.10W 5% CHIP 0805	J 2*	
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517
DRAWN KLW 03-29-99 DWG. NO. PHONE (219) 284-8888 SHEET 15 OF 28 RE <u> 127353-2</u> MD390D0



PARTS LIST  REF DES C.P.N. DESCRIPTION MAP LO  R247 A11371-1011 100 OHM 0.10W 5% CHIP 0805  R248 A11371-1811 180 OHM 0.10W 5% CHIP  R250 A11371-5R63 5.6 0.25W 5% CHIP  R252 103199-1 0.4 OHM 1W 5% 2512 T/R  R253 103199-1 0.4 OHM 1W 5% 2512 T/R  R256 103199-1 0.4 OHM 1W 5% 2512 T/R  R257 103199-1 0.4 OHM 1W 5% 2512 T/R  R259 103199-1 0.4 OHM 1W 5% 2512 T/R  R259 103199-1 0.4 OHM 1W 5% 2512 T/R  R260 A11371-1501 15 OHM 0.10W 5% CHIP  R261 A11371-1331 13K OHM 0.10W 5% CHIP  R263 A11371-4701 47 OHM 0.10W 5% CHIP  R265 A11371-5R63 5.6 0.25W 5% CHIP  R267 103199-1 0.4 OHM 1W 5% 2512 T/R  R267 103199-1 0.4 OHM 0.10W 5% CHIP  R267 103199-1 0.4 OHM 0.10W 5% CHIP  R267 103199-1 0.4 OHM 0.10W 5% CHIP  R267 103199-1 0.4 OHM 1W 5% 2512 T/R  R267 103199-1 0.4 OHM 1W 5% 2512 T/R	2* 2* 2* 4* 3* 4* 3* 1* 2*
R247       A11371-1011       100 OHM 0.10W 5% CHIP 0805       J 2         R248       A11371-1811       180 OHM 0.10W 5% CHIP       K 2         R250       A11371-5R63       5.6 0.25W 5% CHIP       J 2         R252       103199-1       0.4 OHM 1W 5% 2512 T/R       K 3         R253       103199-1       0.4 OHM 1W 5% 2512 T/R       K 3         R256       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP       E 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	2* 2* 2* 4* 3* 4* 3* 1* 2*
R248       A11371-1811       180 CHM 0.10W 5% CHIP       K         R250       A11371-5R63       5.6 0.25W 5% CHIP       J         R252       103199-1       0.4 CHM 1W 5% 2512 T/R       K         R253       103199-1       0.4 CHM 1W 5% 2512 T/R       K         R256       103199-1       0.4 CHM 1W 5% 2512 T/R       N         R257       103199-1       0.4 CHM 1W 5% 2512 T/R       N         R259       103199-1       0.4 CHM 1W 5% 2512 T/R       D         R260       A11371-1501       15 CHM 0.10W 5% CHIP       D         R261       A11371-1331       13K CHM 0.10W 5% CHIP       E         R262       A11371-4701       47 CHM 0.10W 5% CHIP       E         R263       A11371-1811       180 CHM 0.10W 5% CHIP       E         R265       A11371-5R63       5.6 0.25W 5% CHIP       E	2* 2* 4* 3* 4* 3* 1* 2*
R250       A11371-5R63       5.6 0.25W 5% CHIP       J 2         R252       103199-1       0.4 OHM 1W 5% 2512 T/R       K 4         R253       103199-1       0.4 OHM 1W 5% 2512 T/R       K 3         R256       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP       D 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	2 * 4 * 3 * 4 * 3 * 4 * 3 * 1 * 2 * 2 *
R252       103199-1       0.4 OHM 1W 5% 2512 T/R       K         R253       103199-1       0.4 OHM 1W 5% 2512 T/R       K         R256       103199-1       0.4 OHM 1W 5% 2512 T/R       N         R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D         R261       A11371-1331       13K OHM 0.10W 5% CHIP       E         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E         R265       A11371-5R63       5.6 0.25W 5% CHIP       E	3* 4* 3* 3* 1* 2*
R253       103199-1       0.4 OHM 1W 5% 2512 T/R       K 3         R256       103199-1       0.4 OHM 1W 5% 2512 T/R       N 4         R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP 0805       E 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	3* 4* 3* 3* 1* 2*
R256       103199-1       0.4 OHM 1W 5% 2512 T/R       N 4         R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP       D 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	4* 3* 3* 1* 2*
R257       103199-1       0.4 OHM 1W 5% 2512 T/R       N 3         R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP 0805       E 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	3* 3* 1* 2*
R259       103199-1       0.4 OHM 1W 5% 2512 T/R       D 3         R260       A11371-1501       15 OHM 0.10W 5% CHIP       D 3         R261       A11371-1331       13K OHM 0.10W 5% CHIP 0805       E 3         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E 3         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E 3         R265       A11371-5R63       5.6 0.25W 5% CHIP       E 3	3* 1* 2* 2*
R260       A11371-1501       15 OHM 0.10W 5% CHIP       D         R261       A11371-1331       13K OHM 0.10W 5% CHIP 0805       E         R262       A11371-4701       47 OHM 0.10W 5% CHIP       E         R263       A11371-1811       180 OHM 0.10W 5% CHIP       E         R265       A11371-5R63       5.6 0.25W 5% CHIP       E	1 * 2 * 2 *
R261       A11371-1331       13K_OHM Ø.10W 5% CHIP Ø8Ø5       E 2         R262       A11371-47Ø1       47 OHM Ø.10W 5% CHIP       E 2         R263       A11371-1811       18Ø OHM Ø.10W 5% CHIP       E 2         R265       A11371-5R63       5.6 Ø.25W 5% CHIP       E 2	2* 2*
R262       A11371-4701       47 OHM Ø.10W 5% CHIP       E 2         R263       A11371-1811       180 OHM Ø.10W 5% CHIP       E 2         R265       A11371-5R63       5.6 Ø.25W 5% CHIP       E 2	2*
R263       A11371~1811       180 OHM 0.10W 5% CHIP       E 2         R265       A11371~5R63       5.6 0.25W 5% CHIP       E 2	
R265 A11371-5R63 5.6 0.25W 5% CHIP E 2	~
	2 *
R268	
R271 103199-1 0.4 DHM 1W 5% 2512 T/R H 4	
R272 103199-1 0.4 OHM 1W 5% 2512 T/R H 3	
R274 A11368-60432 604K OHM 0.125W 1% CHIP 1206 E 8	
R275 A11368-51111 5.11K OHM Ø.10W 1% CHIP Ø805 E	
R275 A11368-10021 10K 1/10W 1% CHIP 0805 E 8	
R277 A11368-10021 10K 1/10W 1% CHIP 0805 E 8	
R278 A11368-90921 90.9K 0.10W 1% CHIP 0805	
	_
R281 A11371-6814 680 OHM 0.50W 5% CHIP M	
R282 A11368-10021 10K 1/10W 1% CHIP 0805 D 8 R283 A11368-10031 100K 0.1W 1% CHIP 0805 E 8	
R283 A11368-10031 100K 0.1W 1% CHIP 0805 E 8 R284 A11368-20023 20K 0.25W 1% CHIP 1210 F 9	
R285 A11368-10021 10K 1/10W 1% CHIP 0805 F 8	=
	_
	10*
	10*
	10*
R289 A11368-10031 100K 0.1W 1% CHIP 0805 K 1	10*
R291 A11368-22601 226 OHM 0.10W 1% CHIP 0905 N 3	
R292 A11368-60432 604K OHM 0.125W 1% CHIP 1206 J 9	•
R293 A11368-10021 10K 1/10W 1% CHIP 0805 K 9	
R294   A11371-8201   82 OHM 0.10W 5% CHIP   J 7 R295   A11371-8211   820 OHM 0.10W 5% CHIP   J 7	
	-
R296 A11368-10021 10K 1/10W 1% CHIP 0805 K 5	
R297 A11368-51111 5.11K OHM 0.10W 1% CHIP 0805 K	
R298 OPEN K	
R299 A11371-0R02 0.0 OHM JUMPER CHIP 1206 K 6	
R300 103199-1 0.4 OHM 1W 5% 2512 T/R D 6	
R301 103199-1 0.4 OHM 1W 5% 2512 T/A J 6	
R302 103199-1 0.4 OHM 1W 5% 2512 T/R K 5	
R305 103199-1 0.4 OHM 1W 5% 2512 T/R M 6	6 *

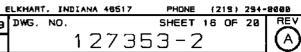
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### INC. CROWN INTERNATIONAL 1718 WEST MISHAWAKA ROAD

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KLW 03-29-99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 18 OF 28 REV



	PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
R306	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*		
R307	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*		
HBØB	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*		
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*		
R312	103199-1	Ø.4 OHM 1W 5% 2512 T/R	I 6*		
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*		
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*		
R315	A11368-51111	5.11K DHM 0.10W 1% CHIP 0805	н 7*		
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*		
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 6		
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8		
R319		OPEN	M 10*		
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/A	L 9		
R323	A11371-0R02	Ø.Ø OHM_JUMPER CHIP 1206	G 8		
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	р э*		
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*		
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*		
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*		
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*		
R407	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*		
R408	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F- 3*		
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*		
R412	103199-1	Ø.4 OHM 1W 5% 2512 T/R	I 3*		
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*		
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*		
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*		
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*		
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7		
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8		
R419		OPEN	K 10*		
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*		
R421	A11371-5R65	5.6 DHM 1W 5% CHIP 2512	H 1*		
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 3		
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8		
R500	A11368-10021	10K 1/10W 1% CHIP 0805	E A		
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2		
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2		
R503	A11368-10021	10K 1/10W 1% CHIP 0805	<b>B</b> 2		
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2		
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2		
R508		OPEN	€ 2		
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1		
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1		
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2		
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2		
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1		
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2		

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN KLW 03-29-99 DWG. NO. SHEET 17 OF 20 REV KLW 03-29-99 DWG. NO. MD39010

PAOJ.



	<del>-</del>	PARTS LIST			$\neg \neg$
REF DES	C. P. N.	DESCRIPTION	MAP	LOC.	$\neg$
R607	A11371-8205	82 OHM 1W 5% CHIP 2512		A 1	$\neg \neg$
R608		OPEN		C 1	
S1	102488-1	SPDT HORIZ SLIDE	ĺ	L 10	
52	C 7325-1	2P 2 POS. PC SLIDE SW.		L 10	
TB1	102475-1	BLOCK, 5 POS TERMINAL		A 2	
TP38	C 9896-9	TEST POINT LOOP		K 1	
TP39	C 9896-9	TEST POINT LOOP		N 7	
U1	C 5095-2	POS. 15 VOLT REG.		H 12	
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		H 10	
U2	C 5096-0	NEG. 15 VOLT REG.		H 9	
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK		H 9	
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%		N 10	
U4	C 8262-5	MC33076D DUAL LO NOISE OF AMP		I S	
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP		N 9	
U100	102723-2	OPTO CELL ON-500 OHM		м 9	
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP		M 10	
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14		и 9	
U104	C 9038-8	COMPARATOR, QUAD LM339D 50-14		G 7	
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP		F 7	
U106	H42902-9	ASM, THERMAL SENSE		N 6	
U200	102723-2	OPTO CELL ON-500 OHM		K 9	
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	-	J 10	
U202	C 9038-8	COMPARATOR, QUAD LM339D SQ-14		K 9	
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14		E 7	
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7	
U2Ø6	H42902-9	ASM, THERMAL SENSE		к з	
U500	C 9012-3	MC33079D QUAD LO NDISE QP AMP		A 2	
WP1	A11378-A050U			A 10	
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T		A 9	
WP3	A11379-C050U			A 9	
WP4	101031-1	.250 FASTON, AUTO INSERTABLE		D 7	
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4	
WP6	127442~1	PREP, CE HI-V WIRE		J 8	
WP7	101031-1	.250 FASTON. AUTO INSERTABLE		D 8	
Z1		OPEN		E 9	
1	102138-9	PWB. CE1000/CE2000 MAIN/INPU	SEE	COMP	MAP
2	101016~1	LBL. BARCODE, , ,		COMP	
3	125242-1	CAP, .625ID X 1" VINYL	_	COMP	
4	126825-1	SILICONE, CLEAR 30Z SYRINGE		COMP	
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	<del></del>	COMP	
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	-	COMP	
7	103180-1	BUMPER, Ø.4" TALL BLK W/ADH	-	COMP	
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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDI

 DRAWN
 KLW
 03-29-99
 DWG, NO.

 PROJ.
 MD39000
 1

ELKHART, INDIANA 48517 PHONE (219) 294-8888

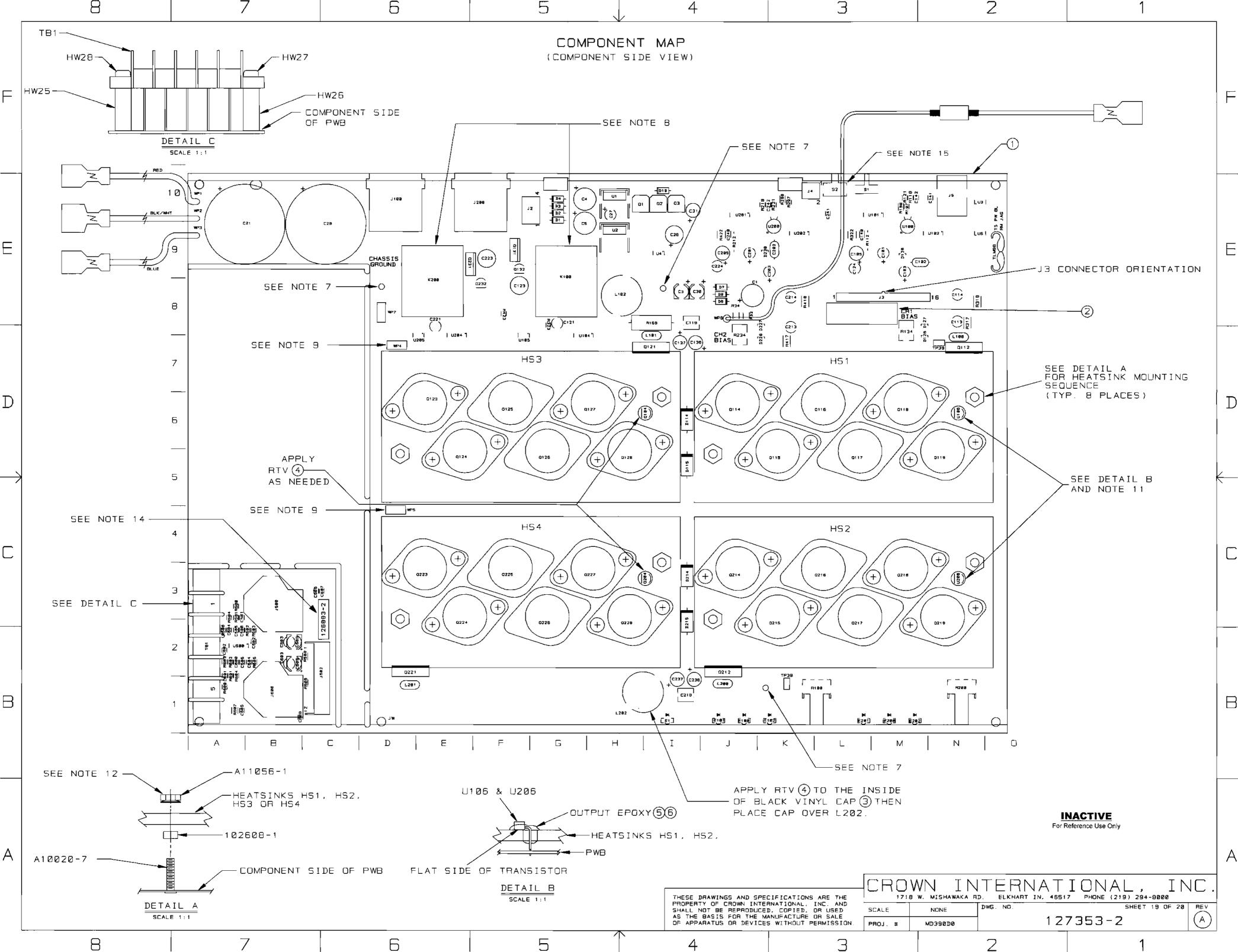
19 DWG, NO. SHEET 18 OF 20 REV

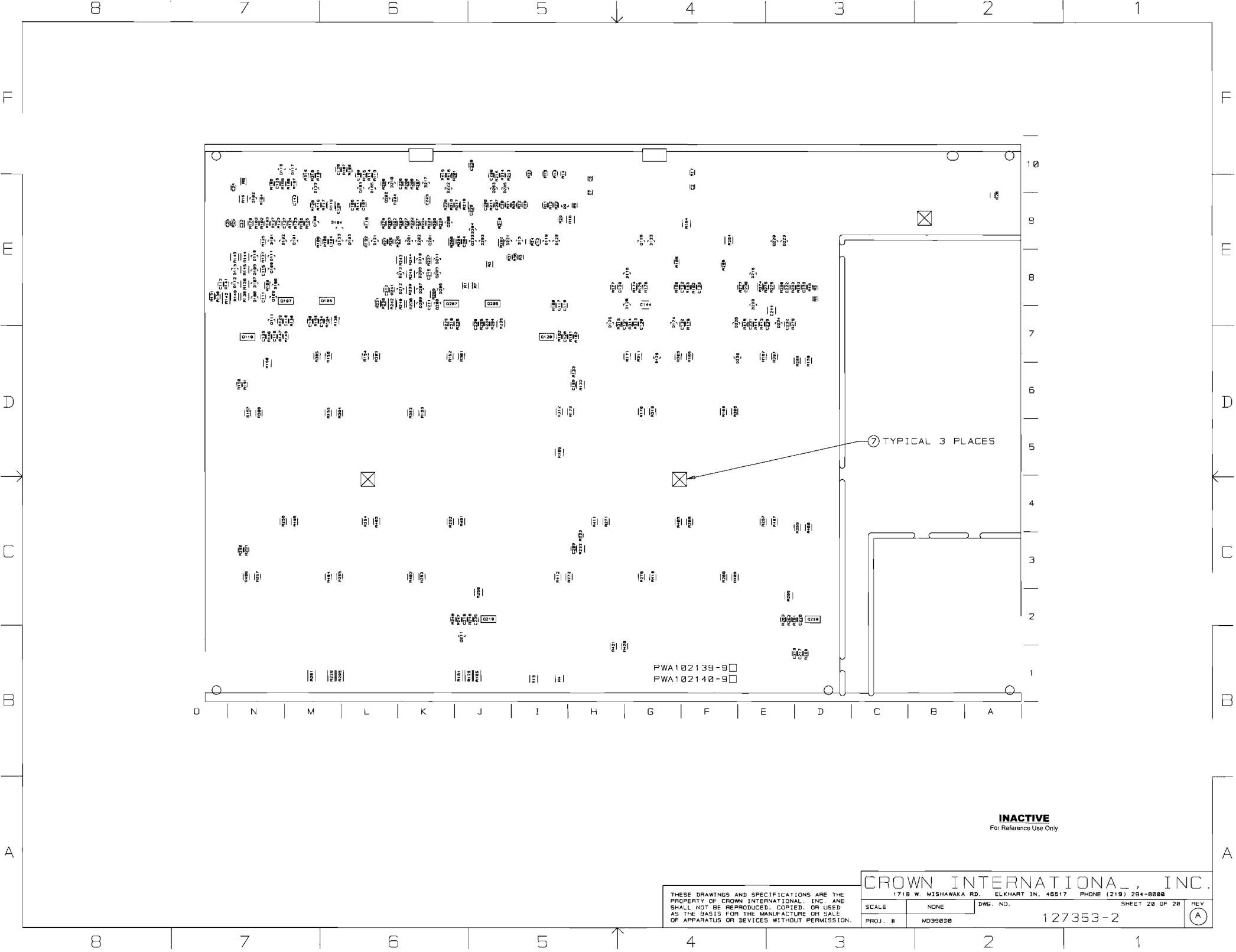




# **Component Map**

for use with Main PWA 127353-2

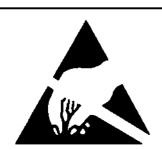




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E.C.N.	ZUNE	HEV.	DESCRIPTION	אוב	8Y	CHK	Ū.	ĒĒ	PE
T991752		A	INITIAL RELEASE FOR PRODUCTION.	09/10/99	DK	SM	KZ	7	<b>192</b>
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### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102141.
- 2. PWB PART NUMBER 102138+9.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
  ARE MOUNTED ON THE SOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223
   TO WP4 AND WP5 RESPECTIVELY.
- 12. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.
  - APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.
    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD.
    - (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
- 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH L85.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH L85.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. LABEL INPUT PWA WITH CPN 126883-4 ON COMPONENT SIDE.
- 15. INSTALL S2 REVERSED FROM SILK SCREENING.
- 16. HAND SOLDER C610 (C 6806-1). AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

### INACTIVE

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·	L CROWN :	INTERNAT	TIDNAL INC.
PRINTS TO	1718 WEST MISHAWAKA ROAD	ELKHART, INDIANA 46	5517 PHONE (219) 294-8000
K	PWA, MAIN	/INPUT CE10	TOL. UNLESS SPECIFIED  X.XX - ± 0.820  X.XX - ± 0.820  X.XX - ± 0.803
	DRAWN DK 29/12/	APPROVED BY:	DO NOT SCALE PRINT
	CHECKED JUN 2-104	ME NA	SUPERSEDES
	SCALE NONE	EE W JA	E.C.
	PROJ # LORY	PE 9/10/99	DWG. NO. SHEET 1 OF 20 REV
	FILENAME: 127353-3_4_01.6	CB NEXT ASM:	<b>1</b> 1 2 7 3 5 3 - 3   <b>(A</b> )

	PARTS LIS	T	
C. P. N.	DESCRIPTION	ΩΤΥ	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14.
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22.HW23,HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210.R316.R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111, R121,
			R176,R177,R182,R185,R193,
			R196.R204.R211,R221.R276.
			R277, R282, R285, R293, R296,
			R313,R413,R500,R501.R502,
			R503,R504,R506,R600.R601,
			R602.R603.R604,R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25. H3Ø, R31. H123. R125. R179.
			R183, R186, R189, R223, R225,
1			R279, R283, R286, R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	ı	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139.R239
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
<u> </u>		-	R224, R287, R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109.R209
A1136B-20021	20K 0.10W 1% CHIP 0805	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116.R191.R216.R291
A11368-39231	392K Ø.10W 1% CHIP Ø8Ø5	6	R22,R23,R102,R180,R202,R280
A11368-499Ø1	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49902	499 OHM 0.125W 1% CHIP	2	R137, R237
A11368-49921	49.9K Ø.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	В	R113.R175.R197.R213.R275.
			R297, R315, R415
A11368-57621	57.6K Ø.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	504K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805		R118, R218
A11368-68121	68.1K Ø.1ØW 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R1B
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17, R114, R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369~27ØK2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369~330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241
	11 21 1 22 1 1 27 1 10 0 0 0 0 0 0 17 11		2
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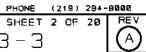
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 Ø9/10/99 DWG. NO. DRAWN DK PROJ. MD390D0

SHEET 2 OF 20 REV 127353-3



_	PARTS LIST						
C. P. N.	DESCRIPTION	1	REFERENCE DESIGNATION				
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14, R15, R33				
A11371-ØRØ2	Ø.Ø OHM JUMPER CHIP 1206	4	R199, R299, R323, R423				
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247				
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422				
A11371-1022	1K 0.125W 5% CHIP 1206	1	RB				
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138, R144, R145, R238, R244, R245				
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146.R161.R246.R261				
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, R160, R260				
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263				
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232				
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2				
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19				
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243				
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,				
			R414				
A11371-3923	3.9K 0.25W 5% CHIP	3	R16.R135.R235				
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418				
A11371-4701	47 OHM Ø.10W 5% CHIP	2	R162, R262				
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34				
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265				
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421				
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105, R128, R181, R205, R228, R281				
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227				
A11371~7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233				
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294				
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607				
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295				
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1				
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3				
A11427-103K2	0.01MF 50V 10% CHIP 0805	8	C109.C111.C115.C209.C211.C215				
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243				
A11427-104K2	0.1 MF 50V 10% 0805	ЭØ	C6, C7, C12, C24, C25, C28, C29,				
			C122, C126, C127, C128, C129,				
			C130, C131, C132, C133, C139.				
			C222, C226, C227, C228, C229,				
			C230,C231,C232,C233.C239,				
			C505.C506.C605				
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212				
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217				
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219				
C 2851-1	1N4004 SILICON RECT.	7	D1. D2. D3. D4. D6. D7. D10				
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100.L101.L200.L201				
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8				
C 3679~5	33UF 50V 20% VERT ELECT	1	C31				
C 4477-3	470 MF 35V VERT	2	C4, C5				
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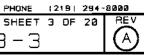
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09/10/98 DWG. NO. DRAWN ÐΚ PROJ. мрээрр

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

SHEET 3 OF 20



	PARTS LIST						
C. P. N.	DESCRIPTION	OTY	REFERENCE DESIGNATION				
C 5095-2	POS. 15 VOLT REG.	1	U1				
C 5096-0	NEG. 15 VOLT REG.	1	U2				
C 5362-6	2.2 MF 50V VERT	1					
C 6802-0	.47 MF 50V AX CERM	2	C102, C202				
C 6806-1	0.01 UF 100V AXIAL CER T/R	2	C610, C611				
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240				
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52				
C 744B-1	MMBT3904 CHIP NPN	6	0100.0101.0129.0200.0201.0229				
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4, U5, U105, U205				
C 8576-8	100 MF 35V 10% ELEC	1	C26				
C 9012-3	MC33079D OUAD LO NOISE OP AM	3	U101,U201.U500				
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102, U104, U202, U204				
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223				
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204				
C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104.				
			D105.D106.D107.D108.D109.				
	<del></del>		D110.D111.D112.D113.D116.				
_	<u></u>		D117, D118, D119, D120, D121,				
			D122, D123, D124, D125, D126,				
· · ·			D127, D128, D129, D130, D201.				
			D202, D203, D204, D205, D206,				
			D207.D208.D209.D210.D211.				
			D212, D213, D216, D217, D218.				
		_					
· · · · · · · · · · · · · · · · · · ·			D221, D222, D223, D224, D225.				
C none n	TECT DOINT LOOP	2	D226.D227,D228,D229,D230				
C 9896-9 C 9918-1	TEST POINT LOOP TO220 VERT CLIP-ON HEATSINK	2	TP38, TP39				
C 9931~4	MMBT5087LT1 PNP XSISTOR SOT-		U1X,U2X Q102,Q109,Q111,Q202,Q209,Q211				
C10196-1	2.2MF 50V 20% RAD T/R	4	C121.C124.C221.C224				
C10208-4	100 MF 25V 20% VERT ELEC	2					
· · · · · · · · · · · · · · · · · · ·			C105, C205				
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215				
C10613-5	1K TOP ADJUST TRIMMER T/R 8200UF 110VDC ELECTROLYTIC	2	R134, R234				
D 8917-3			C20, C21				
5 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE				
101016-1	LBL, BARCODE, , ,	1	2				
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7				
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4				
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2				
101993-1	JACK, 6P4 COND MODULAR R/A	1					
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1					
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235				
102438-560K2	56PF 200V 10% NPC 0805	4	C106.C206.C504.C604				
10243B-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238				
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201				
102466-1	10UF 250V 20% RADIAL T/R	1	C1				
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603				
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214				
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2_	L102.L202				
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502				
102472-3	HDR, 16POS .100 CTR SGL ROW	1					
	I A A TILLE						

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN DK 09/10/99 DWG, NO. PROJ. **OGGECUM** 

PHONE (2191 294-8000 SHEET 4 OF 20 RE



	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200
102475-1	BLOCK, 5 POS TERMINAL	1	T81
102476-1	LED, SMT R/A GREEN	Э	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100, E102, E200, E202
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133.Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	0108,0208
102483-1	PNP 300V 500MA SOT-23	2	0103,0203
102486-1	OPTO BJT NPN SOIC-8 CTR #100	1	Ш3
102488-1	SPDT HORIZ SLIDE	1	S1
102569-3	HS ASM, T1 ISOLATED CH1	1	HS3
102570-3	HS ASM. T1 ISOLATED CH2,	1	HS4
102571-3	HS ASM. T1 NON-ISOLATED CH1.	1	HS1
102572-3	H5 ASM, T1 NON-ISOLATED CH2,	1	H52
102579-1	STAND. 1/4 FID SWAGE AL	2	HW25, HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100, R200
102508-1	SPACER, 6X.187 LONG ALUMINUM	<del>_</del>	HW1, HW2, HW3, HW4, HW5, HW6, HW7.
102000-1	SPACEN, BX. 187 Eding Acoming.		HW8
102723-2	OPTO CELL ON=500 OHM	2	U100.U200
			7
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	
103191-1	0.47UF Z5U 1210 20% 50V	2	C144.C244
103192-1	NPN 300V 500MA 50MHZ 50T-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	0105,0120,0205,0220
103199-1	0.4 OHM 1W 5% 2512 T/R	38	R1,R7,R152,R153,R156,R157,
			R159, R167, R168, R171, R172,
			R252,R253,R256,R257,R259,
			R267, R268, R271, R272, R300.
			R301,R302,R305,R306,R307,
			R308,R311,R312,R400,R401.
			R402, R405, R406, R407, R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136.C137.C236,C237
103331-N050R	WIRE. 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27.HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142.R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	Ø	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	_ 0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3.C3Ø
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2	U105, U206
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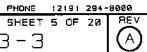
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09/10/99 DWG. NO. DK DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 5 OF 20 127353-3



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8	
C2	103418-103K2	0.01 MF 100V 10% X7R 0805 5MD	F 9*	
<u></u>	125508-1	10UF 50VDC ELECTROLYTIC SMD	1 8	
C4	C 4477-3	470 MF 35V VERT	G 10	
C5	□ 4477-3	470 MF 35V VERT	G 9	
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*	
C7	A11427-104K2	0.1 MF 50V 10% 0805	н 9*	
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*	
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9	
C21	D B917-3	8200UF 110VDC ELECTROLYTIC	В 9	
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*	
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*	
C25	A11427-104K2	0.1 MF 50V 10% 0805	0.9*	
C26	C 8576-8	100 MF 35V 10% ELEC	I 9	
C27	C 5362-6	2.2 MF 50V VERT	H 10	
C28	A11427-104K2		J 9*	
C29		0.1 MF 50V 10% 0805	I 9*	
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	18	
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10	
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9	
C102	C 6802-0	.47 MF 50V AX CERM	м 9	
C103	102467-1	22MF 25V 20% RAD T/R	м 9	
C104		100PF 200V 10% NPO 0805	м 9*	
C1Ø5	C10208-4	100 MF 25V 20% VERT ELEC	L 9	
C106		56PF 200V 10% NPO 0805	L 9*	
C107	-	27PF 50V 10% NPO 0805 T/R	L 9*	
C108		82PF 200V 10% NPO 0805	L 10*	
C109		0.01MF 50V 10% CHIP 0805	H 6*	
C110		470PF 50V 10% NPO 0805 T/R	M 7*	
C111		0.01MF 50V 10% CHIP 0805	N 8*	
		0.012 MF 50V 10% CHIP	0.8*	
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8	
□114	102468-1	47UF 10V 20% NP RAD T/R	N 8	
C115		0.01 MF 50V 10% 0805	N 8*	
C116		4700PF 50V 10% X7R 0805	N 7*	
C117		2700PF 50V 10% CHIP 0805	I 7*	
C11B		0.1 MF 250V 5% MTL POLY	I B	
C119		4700PF 50V 10% X7R 0805	I 7*	
C12Ø		100PF 200V 10% NPO 0805	I 7*	
□121	C10196-1	2.2MF 50V 20% RAD T/R	G 8	
C122		0.1 MF 50V 10% 0805	F 8*	
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8	
C124	C1@196-1	2.2MF 50V 20% RAD T/R	L 9	
D126		0.1 MF 50V 10% 0805	N 10*	
C127		Ø.1 MF 50V 10% 0805	N 9*	
C128	-	0.1 MF 50V 10% 0805	M 10*	
C129		0.1 MF 50V 10% 0805	M 9*	
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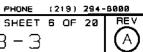
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 DK 09/10/99 DWG. NO. **NWARD** PROJ. MD390D0

SHEET 6 OF 20 127353-3



REF DES C.P.N. DESCRIPTION MAP LOC. C130 A11427-104K2 0.1 MF 50V 10% 0805 H 7* C131 A11427-104K2 0.1 MF 50V 10% 0805 H 7* C132 A11427-104K2 0.1 MF 50V 10% 0805 H 7* C133 A11427-104K2 0.1 MF 50V 10% 0805 F 7* C133 A11427-104K2 0.1 MF 50V 10% 0805 F 8* C134 A11368-101K2 0.1 MF 50V 10% 0805 F 8* C135 102438-101K2 100PF 200V 10% NPO 0805 T/ M 7* C136 103210-1 2.2UF 160V RADIAL T/F I 7 C137 183210-1 2.2UF 160V RADIAL T/F I 7 C138 102438-820K2 8PF 200V 10% NPO 0805 M 7* C139 A11427-104K2 0.1 MF 50V 10% 0805 M 7* C139 A11427-104K2 0.1 MF 50V 10% 0805 M 7* C140 C 7091-9 0.33 MF 50V CHIP 1206 L 9 C141 A11369-471K2 470PF 50V 10% NPO 0805 M 10* C142 A11369-330J2 33PF 50V 5% NPO MLC 0805 M 10* C144 103191-1 0.47UF 25U 1218 20% 50V G M 9* C144 103191-1 0.47UF 25U 1218 20% 50V G M 9* C202 C 6802-0 47 MF 50V 20% RADIAL T/R J 9 C203 102467-1 22MF 25V 20% RADIAL T/R J 9 C204 102438-560K2 56PF 200V 10% NPO 0805 M 10* C205 10220-1 40 MF 50V 5% NPO MLC 0805 M 9* C206 102438-560K2 56PF 200V 12% NPO 0805 M 10* C207 A11369-101K2 100PF 200V 20% RADIAL T/R J 9 C208 102438-560K2 56PF 200V 10% NPO 0805 M 10* C209 A11427-103K2 0.81MF 50V 20% RADIAL T/R J 9 C209 A11427-103K2 0.81MF 50V 20% RADIAL T/R J 9 C209 A11427-103K2 0.81MF 50V 10% NPO 0805 J 9* C209 A11427-103K2 0.81MF 50V 10% NPO 0805 J 9* C209 A11427-103K2 0.81MF 50V 10% NPO 0805 J 9* C209 A11427-103K2 0.81MF 50V 10% NPO 0805 J 9* C210 A11368-471K2 470PF 50V 10% NPO 0805 J 9* C211 A11427-123K2 0.81MF 50V 10% CHIP 0805 K 7* C212 A11427-123K2 0.81MF 50V 10% CHIP 0805 K 7* C213 102468-1 47UF 10V 20% NP RAD T/R K 8 C214 A11427-123K2 0.81MF 50V 10% NPO 0805 J 0.81MF 50V 10% CHIP 0805 K 8* C215 A11427-123K2 0.81MF 50V 10% CHIP 0805 K 8* C216 A11427-123K2 0.81MF 50V 10% CHIP 0805 K 8* C217 A11427-123K2 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% NP 0805 J 0.81MF 50V 10% N		•	PARTS LIST	
C130	REF DES	C.P.N.		TMAP LOC.
C131 A11427-104K2 8.1 MF 58V 18X 0805	C13Ø			
C132 A11427-104KZ 0.1 MF 50V 10X 0805 F 7*  C133 A11427-104KZ 0.1 MF 50V 10X 0805 F 8*  C134 A11369-102JZ 0.001UF 50V 5X NPO MLC 0805 T/ M 7*  C135 102438-101KZ 100PF 200V 10X NPO 0805 N 7*  C136 102210-1 2.2UF 160V RADIAL T/R 1 7  C137 103210-1 2.2UF 160V RADIAL T/R 1 7  C138 102438-802KZ 02FF 200V 10X NPO 0805 M 7*  C139 11427-104KZ 0.1 MF 50V 10X 0805 M 7*  C139 11427-104KZ 0.1 MF 50V 10X 0805 M 7*  C140 C 7091-9 0.33 MF 50V CHIP 1206 L 9  C141 A11369-471KZ 470PF 50V 10X NPO 0805 T/R N 10  C142 A11369-330JZ 33PF 50V 5X NPO MLC 0805 M 18  C143 A11427-103K5 0.81MF 50V 5X NPO MLC 0805 M 18  C144 0.1 M 103191-1 0.4 T/UF 50V 10X NPO 0805 M 18  C144 103191-1 0.4 T/UF 50V 20X RADIAL T/R J 9*  C220 C 6802-0 47 MF 50V 20X RADIAL T/R J 9*  C221 102465-1 27MF 50V 20X RADIAL T/R J 9*  C222 C 6802-0 47 MF 50V 20X RADIAL T/R J 9*  C223 102467-1 22MF 25V 20X RAD T/R K 9*  C226 10228-4 100 MF 25V 20X RAD T/R K 9*  C226 10228-3 100 KZ 100PF 200V 10X NPO 0805 J 9*  C226 102438-506KZ 56PF 200V 10X NPO 0805 J 9*  C227 A11369-270KZ 27PF 50V 10X NPO 0805 J 9*  C228 102438-506KZ 56PF 200V 10X NPO 0805 J 9*  C229 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 9*  C220 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 9*  C220 A11369-270KZ 27PF 50V 10X NPO 0805 J 9*  C220 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 9*  C221 A11427-103KZ 0.01MF 50V 10X CHIP 0805 H 3*  C221 A11427-103KZ 0.01MF 50V 10X CHIP 0805 H 3*  C221 A11427-103KZ 0.01MF 50V 10X CHIP 0805 H 3*  C221 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C221 A11427-103KZ 0.01MF 50V 10X CHIP 0805 H 3*  C222 A11427-103KZ 0.01MF 50V 10X CHIP 0805 H 5*  C223 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C224 A102438-01KZ 4700PF 50V 10X NPO 0805 J 7*  C225 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C226 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C227 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C228 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C229 A11427-103KZ 0.01MF 50V 10X NPO 0805 J 7*  C220 A11427-104KZ 0.01MF 50V 10X NPO 0805 J 7*  C221 C10196-1 2.2MF 50V 20X NP RAD T/R K 8  C222 A11427-104KZ 0.01MF 50V 1	C131			H 7*
C133	E132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C134	C133	· <del>·</del>		F 8*
C135	C134			M 7*
C136	C135			+
C137	C136			I 7
C139 A11427-184K2 0.1 MF 50V 10% 0805 G 7* C140 C 7091-9 0.33 MF 50V CHIP 1206 L 9 C141 A11369-471K2 470FF 50V 10% NPO 0805 T/R N 10 C142 A11369-330J2 33PF 50V 5% NPO MLC 0805 M 18 C143 A11427-193K5 0.01MF 50V 5% X7R 1206 M 9* C144 103191-1 0.47UF 25U 1218 20% 50V G 7* C201 102465-1 .47UF 50V 20% RADIAL T/R J 9 C202 C 6802-0 .47 MF 50V AX CERM K 9 C203 102467-1 22MF 25V 20% RADIAL T/R K 9 C204 102430-101K2 100FF 200V 10% NPO 0805 J 9* C205 C10220-4 100 MF 50V 20% RADIAL T/R K 9 C206 102430-101K2 100FF 200V 10% NPO 0805 J 9* C207 A11369-270K2 27FF 50V 10% NPO 0805 J 9* C208 102436-820K2 56FF 200V 10% NPO 0805 J 9* C209 A11427-103K2 0.01MF 50V 10% CHIP 0805 H 3* C210 A11427-123K2 0.01MF 50V 10% CHIP 0805 K 7* C211 A11427-123K2 0.01MF 50V 10% NPO 0805 K 7* C212 A11268-1 47UF 10V 20% NP RAD T/R K 8 C213 102468-1 47UF 10V 20% NP RAD T/R K 8 C214 102436-1 K 7 WF 50V 10% NP RAD T/R K 8 C215 A11427-103K2 0.01MF 50V 10% CHIP 0805 K 7* C216 A11427-103K2 0.01MF 50V 10% CHIP 0805 K 7* C217 A11427-123K2 0.01MF 50V 10% NP RAD T/R K 8 C218 A11427-103K2 0.01MF 50V 10% NP RAD T/R K 8 C219 A11427-103K2 0.01MF 50V 10% NP RAD T/R K 8 C210 A11427-103K2 0.01MF 50V 10% NP RAD T/R K 8 C211 A11427-103K2 0.01MF 50V 10% NP RAD T/R K 8 C212 A11427-103K2 0.01MF 50V 10% NP RAD T/R K 8 C213 102438-1 47UF 10V 20% NP RAD T/R K 8 C214 102438-1 47UF 10V 20% NP RAD T/R K 8 C215 A11427-103K2 0.01MF 50V 10% X7R 0805 D 1* C216 A11427-104K2 0.01MF 50V 10% X7R 0805 K 8* C217 A11427-104K2 0.01MF 50V 10% X7R 0805 F 1* C220 102438-101K2 100FF 50V 10% X7R 0805 F 1* C221 C10196-1 2.0FF 50V 20% NP ELEC RAD T/R F 9 C222 A11427-104K2 0.1 MF 50V 10% 0805 K 9* C223 C 9157-6 100UF 16V 20% NP ELEC RAD T/R F 9 C224 A11427-104K2 0.1 MF 50V 10% 0805 K 9* C225 A11427-104K2 0.1 MF 50V 10% 0805 K 9* C226 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C227 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C228 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C231 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C231 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C231 A11427-104K2 0.1 MF 50V 10% 0805 F 6 C231 A11427-104K2 0.1	E137	103210-1	2.2UF 160V RADIAL T/R	
C199	C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C141 A11369-471K2 470PF 50V 10X NPO 080S T/R	C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C142       A11369-330J2       33PF 50V 5% NPO MLC 0805       M 18         C143       A11427-103K5       0.21MF 50V 5% X7R 1206       M 9*         C144       103191-1       0.47UF 25U 1210 20% 50V       G 7*         C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20% RAD T/R       K 9         C204       102438-101K2       100PF 200V 10% NPO 0805       J 9*         C205       C10208-4       100 MF 25V 20% VERT ELEC       J 9*         C206       102438-50K2       56PF 200V 10% NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10% NPO 0805       J 9*         C208       102438-60K2       56PF 200V 10% NPO 0805       J 10*         C209       A1247-103K2       0.01MF 50V 10% NPO 0805       J 10*         C209       A11427-103K2       0.01MF 50V 10% CHIP 0805       H 3*         C210       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C213       102468-1<	C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C143       A11427-103K5       0.01MF 50V 5X X7R 1206       M 9*         C144       103191-1       0.47UF 25U 1210 20X 50V       G 7*         C201       102465-1       .47UF 50V 20X RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20X RAD T/R       K 9         C204       102438-101K2       100PF 200V 10X NPO 0805       J 9*         C205       C10220-4       100 MF 25V 20X VAPT ELEC       J 9         C206       102438-560K2       56PF 200V 10X NPO 0805       J 9*         C207       A11369-270K2       27PF 50V 10X NPO 0805       J 10*         C208       102438-020K2       28PF 200V 10X NPO 0805       J 10*         C209       101438-020K2       28PF 200V 10X NPO 0805       J 10*         C209       101438-020K2       28PF 200V 10X NPO 0805       J 10*         C209       11427-103K2       0.01MF 50V 10X CHIP 0805       H 3*         C210       A11427-103K2       0.01MF 50V 10X CHIP 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10X CHIP 0805       K 7*         C212       A11427-103K2       0.01 MF 50V 10X CHIP 0805       K 8*         C213       102468-1	E141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	
C144       103191-1       0.47UF Z5U 1210 20% S0V       G 7*         C201       102465-1       .47UF 50V 20% RADIAL T/R       J 9         C202       C 6802-0       .47 MF 50V AX CERM       K 9         C203       102467-1       22MF 25V 20% RAD T/R       K 9         C204       102438-101K2       100PF 200V 10% NPO 0805       J 9*         C205       C102208-4       100 MF 25V 20% VERT ELEC       J 9         C206       102438-560K2       56PF 200V 10% NPO 0805       J 9*         C207       A11359-270K2       27PF 50V 10% NPO 0805       J 10*         C208       102438-620K2       29PF 200V 10% NPO 0805       J 10*         C209       A11427-103K2       0.01MF 50V 10% NPO 0805       J 10*         C209       A11427-103K2       0.01MF 50V 10% NPO 0805       H 3*         C210       A11369-471K2       470PF 50V 10% NPO 0805       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C213       A1427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C214       A1427-103K2       0.01MF 50V 10% CHIP 0805       K 8*         C214       102468-1	C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C201         102465-1         .47UF 50V 20% RADIAL T/R         J 9           C202         C 6802-0         .47 MF 50V AX CERM         K 9           C203         102467-1         22MF 25V 20% RAD T/R         K 9           C204         102438-101K2 100FF 200V 10% NPO 0805         J 9*           C205         C10208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-560K2 56PF 200V 10% NPO 0805         J 9*           C207         A11359-270K2         27PF 50V 10% NPO 0805         J 10*           C208         102438-620K2 62PF 200V 10% NPO 0805         J 10*           C209         A11427-103K2 8.01MF 50V 10% NPO 0805         J 10*           C209         A11427-103K2 8.01MF 50V 10% NPO 0805         H 3*           C210         A11369-471K2 470PF 50V 10% NPO 0805         K 7*           C210         A11369-471K2 470PF 50V 10% NPO 0805         K 7*           C211         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 7*           C211         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 7*           C212         A11427-103K2 8.01MF 50V 10% NP RAD T/R         K 8           C214         102468-1         47UF 10V 20% NP RAD T/R         K 8           C215         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 8	C143	A11427-103K5	0.01MF 50V 5% X7R 1206	м 9*
C201         102465-1         .47UF 50V 20% RADIAL T/R         J 9           C202         C 6802-0         .47 MF 50V AX CERM         K 9           C203         102467-1         22MF 25V 20% RAD T/R         K 9           C204         102438-101K2 100FF 200V 10% NPO 0805         J 9*           C205         C10208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-560K2 56PF 200V 10% NPO 0805         J 9*           C207         A11359-270K2         27PF 50V 10% NPO 0805         J 10*           C208         102438-620K2 62PF 200V 10% NPO 0805         J 10*           C209         A11427-103K2 8.01MF 50V 10% NPO 0805         J 10*           C209         A11427-103K2 8.01MF 50V 10% NPO 0805         H 3*           C210         A11369-471K2 470PF 50V 10% NPO 0805         K 7*           C210         A11369-471K2 470PF 50V 10% NPO 0805         K 7*           C211         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 7*           C211         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 7*           C212         A11427-103K2 8.01MF 50V 10% NP RAD T/R         K 8           C214         102468-1         47UF 10V 20% NP RAD T/R         K 8           C215         A11427-103K2 8.01MF 50V 10% CHIP 0805         K 8	C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C202         C 6802-0         .47 MF 50V AX CERM         K 9           C203         102467-1         22MF 25V 20% RAD T/R         K 9           C204         102438-101K2         120PF 200V 10% NPO 0805         J 9*           C205         C102208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-560K2         56PF 200V 10% NPO 0805         J 9*           C207         A11359-270K2         27PF 50V 10% NPO 0805         J 9*           C208         102438-826K2         82PF 200V 10% NPO 0805         J 10*           C209         A11359-471K2         470PF 50V 10% NPO 0805         J 10*           C209         A11427-103K2         0.81MF 50V 10% CHIP 0805         K 7*           C210         A11369-471K2         470PF 50V 10% CHIP 0805         K 7*           C211         A11427-103K2         0.81MF 50V 10% CHIP 0805         K 7*           C212         A11427-123K2         0.81MF 50V 10% CHIP 0805         K 7*           C213         A11427-123K2         0.81MF 50V 10% CHIP 0805         K 7*           C214         102468-1         47UF 10% 20% NP RAD T/R         K 8           C215         A11427-123K2         0.81MF 50V 10% CHIP 0805         K 6*           C216         A11427-104K2 <td>C201</td> <td></td> <td></td> <td>J 9</td>	C201			J 9
C203       102467-1       22MF 25V 20% RAD T/R       K 9         C204       102436-101k2 100PF 200V 10% NPO 0805       J 9*         C205       C10209-4       100 MF 25V 20% VERT ELEC       J 9         C206       102436-560k2 56PF 200V 10% NPO 0805       J 9*         C207       A11369-270k2 27PF 50V 10% NPO 0805       J 9*         C208       102436-820k2 82PF 200V 10% NPO 0805       J 10*         C209       A11427-103K2 0.01MF 50V 10% NPO 0805       H 3*         C210       A11369-471k2 470PF 50V 10% NPO 0805       K 7*         C211       A11427-103K2 0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2 0.01MF 50V 10% CHIP 0805       K 7*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2 0.01 MF 50V 10% 2805       K 8*         C216       A11427-472K2 4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2 2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 50V 10% CHIP 0805       D 1*         C219       A11427-472K2 4700PF 50V 10% CHIP 0805       D 1*         C210       A10447-104JD 0.1 MF 50V 10% CHIP 0805       D 1*	C202			
C285         C10208-4         100 MF 25V 20% VERT ELEC         J 9           C206         102438-550K2 56PF 200V 10% NPO 0805         J 9*           C207         A11359-270K2 27PF 50V 10% NPO 0805         J 9*           C208         102438-620K2 82PF 200V 10% NPO 0805         J 10*           C209         A11427-103K2 0.01MF 50V 10% CHIP 0805         H 3*           C210         A11369-471K2 470PF 50V 10% NPO 0805 T/R         K 7*           C211         A11427-103K2 0.01MF 50V 10% CHIP 0805         K 7*           C212         A11427-123K2 0.01MF 50V 10% CHIP         L 8*           C213         102468-1         47UF 10V 20% NP RAD T/R         K 8           C214         102468-1         47UF 10V 20% NP RAD T/R         K 8           C215         A11427-103K2 0.01 MF 50V 10% 2085         K 8*           C216         A11427-472K2 4700PF 50V 10% X7R 0805         J 2*           C217         A11427-7272K2 2700PF 50V 10% X7R 0805         J 2*           C218         A10434-104JD 0.1 MF 250V 5% MTL POLY         I 1           C219         A11427-7272K2 2700PF 50V 10% X7R 0805         E 1*           C220         102438-10K2 10K2 10K2 10K2 0805         D 2*           C221         C10196-1         2.2MF 50V 20% RAD T/R         B 6	C203	102467-1	22MF 25V 20% RAD T/R	К 9
C286       102438-560K2       56PF       200V       102 NPO       0805       J       9*         C207       A11369-270K2       27PF       50V       10%       NPO       0805       J       102438-820K2       82PF       200V       10%       NPO       0805       J       10%         C209       A11427-103K2       8.01MF       50V       10%       NPO       0805       H       3*         C210       A11369-471K2       470PF       50V       10%       CHIP       0805       K       7*         C211       A11427-103K2       4.01MF       50V       10%       CHIP       0805       K       7*         C211       A11427-103K2       0.01MF       50V       10%       CHIP       0805       K       7*         C212       A11427-123K2       0.01MF       50V       10%       CHIP       CHIP       K       8*         C212       A11427-103K2       0.01MF       50V       10%       CHIP       K       8         C213       A11427-103K2       4700PF       50V       10%       X7R       0805       K       8*         C216       A11427-103K2       4700PF       50V       10%	C204	102438-101K2	100PF 200V 10% NPQ 0805	J 9*
C207       A11369-270K2       27PF 50V 10X NPO 0805 T/R       J 9*         C208       102438-820K2       82PF 200V 10X NPO 0805       J 10*         C209       A11427-103K2       0.01MF 50V 10X CHIP 0805       H 3*         C210       A11369-471K2       470PF 50V 10X NPO 0805 T/R       K 7*         C211       A11427-103K2       0.01MF 50V 10X CHIP 0805       K 7*         C212       A11427-123K2       0.01Z MF 50V 10X CHIP       L 8*         C213       102468-1       47UF 10V 20X NP RAD T/R       K 8         C214       102468-1       47UF 10V 20X NP RAD T/R       K 8         C215       A11427-103K2       0.01 MF 50V 10X 20805       K 6*         C216       A11427-472K2       4700PF 50V 10X X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10X CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5X MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10X X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10X NPD 0805       D 2*         C221       C10196-1       2.2MF 50V 20X RAD T/R       E 8         C222       C10196-1       2.2MF 50V 20X RAD T/R       J 9         C224       C10196-1	C2Ø5	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C208       102438-820K2       82PF       200V       10X       NPO       0805       J       10*         C209       A11427-103K2       0.01MF       50V       10%       CHIP       0805       H       3*         C210       A11369-471K2       470PF       50V       10%       NPO       0805       K       7*         C211       A11427-103K2       0.01MF       50V       10%       CHIP       K       K       7*         C212       A11427-123K2       0.012 MF       50V       10%       CHIP       L       8*         C213       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C215       A11427-103K2       0.01 MF       50V       10%       2805       K       6*         C215       A11427-103K2       0.01 MF       50V       10%       XPR       0805       D       1*         C216	C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C209       A11427-103K2       Ø.01MF       50V       10%       CHIP       Ø805       H       3*         C210       A11369-471K2       470PF       50V       10%       NPO       Ø005       T/R       K       7*         C211       A11427-103K2       Ø.01MF       50V       10%       CHIP       B05       K       7*         C212       A11427-123K2       Ø.012       MF       50V       10%       CHIP       L       B*         C213       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C214       102468-1       47UF       10V       20%       NP       RAD       T/R       K       8         C215       A11427-103K2       Ø.01       MF       50V       10%       X7R       0805       K       B*         C216       A11427-103K2       4700PF       50V       10%       X7R       0805       D       1*         C217       A11427-272K2       2700PF       50V       10%       X7R       0805       D       1*         C218       A10434-104JD       Ø.1       MF       250V       50V       X7R       0805	C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	¥ e L
C210       A11369-471K2       470PF 50V 10% NPO 0805 T/R       K 7*         C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.012 MF 50V 10% CHIP       L 8*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2       0.01 MF 50V 10% 20805       K 6*         C215       A11427-472K2       4700PF 50V 10% 20805       J 2*         C217       A11427-272K2       4700PF 50V 10% CHIP 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       E 8*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       J 9         C224       C10196-1	C208	102438-820K2	82PF 200V 10% NPO 0805	J 101*
C211       A11427-103K2       0.01MF 50V 10% CHIP 0805       K 7*         C212       A11427-123K2       0.012 MF 50V 10% CHIP       L 8*         C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2       0.01 MF 50V 10% 2085       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD       0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       E 8*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 8         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2       0.1 MF 50V 10% 0805       K 10*         C227       A11427-104K2<	C2Ø9	A11427-103K2	0.01MF 50V 10% CHIP 0805	н э*
C212       A11427-123K2       0.012 MF 50V 10% CHIP       L 8*         C213       102468-1       47 UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47 UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2       0.01 MF 50V 10% 2805       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD       0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 8         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.2MF 50V 10% 0805       K 10*         C225       A11427-104K2       0.1 MF 50V 10% 0805       K 9*         C226       A11427-104K2       0.1 MF 50V 10% 0805       J 9*         C229       A11427-104K2       <	C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C213       102468-1       47UF 10V 20% NP RAD T/R       K 8         C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2 0.01 MF 50V 10% 2805       K 8*         C216       A11427-472K2 4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2 2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2 4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 6         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C224       C10196-1       2.1 MF 50V 10% 0805       K 10*         C225       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C226       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C229       A11427-104K2 0.1 MF 50V 10% 0805 <td< td=""><td>C211</td><td>A11427-103K2</td><td>0.01MF 50V 10% CHIP 0805</td><td>K 7*</td></td<>	C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C214       102468-1       47UF 10V 20% NP RAD T/R       K 8         C215       A11427-103K2       0.01 MF 50V 10% 2005       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2 4700PF 50V 10% X7R 0905       E 1*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 8         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C225       A11427-104K2 0.1 MF 50V 10% 0805       K 10*         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 10*         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805 <t< td=""><td>C212</td><td>A11427-123K2</td><td>0.012 MF 50V 10% CHIP</td><td>L 8*</td></t<>	C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C215       A11427-103K2       0.01 MF 50V 10% 0805       K 8*         C216       A11427-472K2       4700PF 50V 10% X7R 0805       J 2*         C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD       0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2       4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2       100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C225       A11427-104K2       0.1 MF 50V 10% 0805       K 10*         C226       A11427-104K2       0.1 MF 50V 10% 0805       K 9*         C227       A11427-104K2       0.1 MF 50V 10% 0805       J 10*         C229       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C230       A11427-104K2       0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2       0.1 MF 50V 10% 0805       E 7*	C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C216       A11427-472K2       4700PF       50V       10%       X7R       0805       J       2*         C217       A11427-272K2       2700PF       50V       10%       CHIP       0805       D       1*         C218       A10434-104JD       0.1       MF       250V       5%       MTL       POLY       I       1         C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10%       NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20%       RAD       T/R       E       8         C223       C 9157-6       100UF       16V       20%       NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20%       RAD       T/R       J       9         C225       A11427-104K2       0.1       MF       50V       10%       0805       K       10*         C227       A11427-104K2       0.1       MF       50V       10%       0805       J       9*	C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C217       A11427-272K2       2700PF 50V 10% CHIP 0805       D 1*         C218       A10434-104JD 0.1 MF 250V 5% MTL POLY       I 1         C219       A11427-472K2 4700PF 50V 10% X7R 0805       E 1*         C220       102438-101K2 100PF 200V 10% NPO 0805       D 2*         C221       C10196-1       2.2MF 50V 20% RAD T/R       E 8         C222       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10*         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C229       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*	C215	A11427-103K2	0.01 MF 50V 10% 0805	K B*
C218	C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C219       A11427-472K2       4700PF       50V       10%       X7R       0805       E       1*         C220       102438-101K2       100PF       200V       10%       NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20%       RAD       T/R       E       8         C222       A11427-104K2       0.1       MF       50V       10%       0805       E       8*         C223       C       9157-6       100UF       16V       20%       NP       ELEC       RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20%       RAD       T/R       J       9         C226       A11427-104K2       0.1       MF       50V       10%       0805       K       10*         C227       A11427-104K2       0.1       MF       50V       10%       0805       K       9*         C228       A11427-104K2       0.1       MF       50V       10%       0805       J       9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E       7*	C217	<del></del>		D 1*
C220       102438-101K2       100PF       200V       10% NPO       0805       D       2*         C221       C10196-1       2.2MF       50V       20% RAD       T/R       E       8         C222       A11427-104K2       0.1 MF       50V       10% 0805       E       8*         C223       C       9157-6       100UF       16V       20% NP       ELEC RAD       T/R       F       9         C224       C10196-1       2.2MF       50V       20% RAD       T/R       J       9         C226       A11427-104K2       0.1 MF       50V       10% 0805       K       10*         C227       A11427-104K2       0.1 MF       50V       10% 0805       J       10*         C228       A11427-104K2       0.1 MF       50V       10% 0805       J       9*         C230       A11427-104K2       0.1 MF       50V       10% 0805       E       8*         C231       A11427-104K2       0.1 MF       50V       10% 0805       E       7*         C232       A11427-104K2       0.1 MF       50V       10% 0805       E       7*	C218	A10434-104JD	Ø.1 MF 250V 5% MTL POLY	I 1
C221	C219	A11427-472K2	4700PF 50V 10% X7R 0805	Ę 1*
C222       A11427-104K2       Ø.1       MF 50V 10% 0805       E 8*         C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2       Ø.1       MF 50V 10% 0805       K 10*         C227       A11427-104K2       Ø.1       MF 50V 10% 0805       K 9*         C228       A11427-104K2       Ø.1       MF 50V 10% 0805       J 9*         C229       A11427-104K2       Ø.1       MF 50V 10% 0805       E 8*         C230       A11427-104K2       Ø.1       MF 50V 10% 0805       E 7*         C232       A11427-104K2       Ø.1       MF 50V 10% 0805       E 7*		102438-101K2	100PF 200V 10% NPO 0805	<del></del>
C223       C 9157-6       100UF 16V 20% NP ELEC RAD T/R       F 9         C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10*         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10*         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*		C1Ø196-1	2.2MF 50V 20% RAD T/R	- <del>1</del>
C224       C10196-1       2.2MF 50V 20% RAD T/R       J 9         C226       A11427-104K2 0.1 MF 50V 10% 0805       K 10*         C227       A11427-104K2 0.1 MF 50V 10% 0805       K 9*         C228       A11427-104K2 0.1 MF 50V 10% 0805       J 10*         C229       A11427-104K2 0.1 MF 50V 10% 0805       J 9*         C230       A11427-104K2 0.1 MF 50V 10% 0805       E 8*         C231       A11427-104K2 0.1 MF 50V 10% 0805       E 7*         C232       A11427-104K2 0.1 MF 50V 10% 0805       E 7*	C222			_
C226       A11427-104K2       Ø.1       MF       50V       10%       Ø805       K       10*         C227       A11427-104K2       Ø.1       MF       50V       10%       Ø805       K       9*         C228       A11427-104K2       Ø.1       MF       50V       10%       Ø805       J       9*         C229       A11427-104K2       Ø.1       MF       50V       10%       Ø805       J       9*         C230       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E       7*		<del> </del>		
C227       A11427-104K2       0.1       MF       50V       10%       0805       K       9*         C228       A11427-104K2       0.1       MF       50V       10%       0805       J       10*         C229       A11427-104K2       0.1       MF       50V       10%       0805       J       9*         C230       A11427-104K2       0.1       MF       50V       10%       0805       E       8*         C231       A11427-104K2       0.1       MF       50V       10%       0805       E       7*         C232       A11427-104K2       0.1       MF       50V       10%       0805       E       7*	-			
C228       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       J 10*         C229       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       J 9*         C230       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E 8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E 7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E 7*				
C229       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       J       9*         C230       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E       8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E       7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E       7*				<del></del>
C230       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E8*         C231       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø805       E7*				_
C231       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E 7*         C232       A11427-104K2       Ø.1       MF       50V       10%       Ø8Ø5       E 7*				
C232 A11427-104K2 0.1 MF 50V 10% 0805 E 7*				_
				<del></del>
		-		
	E233	A11427-104K2	U.1 MF 50V 10% 0805	D 8*

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DRAWN DK 09/10/99 DWG. NO. PROJ. MD390D0

PHONE (219) 294-8888 SHEET 7 OF 20 RE

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PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.		
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*		
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*		
C236	103210-1	2.2UF 160V RADIAL T/R	I 1		
C237	103210-1	2.2UF 160V RADIAL T/R	I 1		
C23B	102438-820K2	82PF 200V 10% NPO 0805	J 7*		
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*		
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9		
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10		
C242	A11369-330J2	33PF 50V 5% NPO MLC 0005	K 10		
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*		
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*		
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2		
C5Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2		
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2		
C503	102467-1	22MF 25V 20% RAD T/R	B 2		
C504	102438~560K2	56PF 200V 10% NPO 0805	A 2		
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2		
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2		
C509		OPEN	B 2		
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2		
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1		
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2		
C603	102467-1	22MF 25V 20% RAD T/R	B 2		
C604	10243B-560K2	56PF 200V 10% NPO 0805	B 2		
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1		
C606	A11371-1501	15 OHM 0.1W 5% CHIP 0805	С 3		
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0005	C 3		
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1		
C6 <b>0</b> 9		OPEN	B 2		
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	В 3		
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1		
D1	C 2851-1	1N4004 SILICON RECT.	G 9		
D2	C 2851-1	1N4004 SILICON RECT.	G 10		
DЭ	C 2851-1	1N4004 SILICON RECT.	G 10		
D4	C 2851-1	1N4004 SILICON RECT.	G 10		
D6	C 2851-1	1N4004 SILICON RECT.	J B		
D7	C 2851-1	1N4004 SILICON RECT.	J B		
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 🖯		
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*		
D1@	C 2851-1	1N4004 SILICON RECT.	I 10		
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*		
D101	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*		
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*		
D103	C 9283-0	DIGDE, 1N914/1N4148 SOT-23 SMT	L 9*		
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*		
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*		
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*		
D1017	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*		
D108	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*		

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DRAWN	DK	09/10/99	ŀ
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1718 WEST MISHAWAKA ROAD



REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D109	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 5
D116	□ 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D11B	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	G 9*
D123 D124	C 9283-Ø	DIODE: 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D125	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	M 7
D120 D127	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	G 7*
D129	C 9283-Ø	DIODE: 1N914/1N4148 SDT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-29 SMT	М 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D2 <b>0</b> 5	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
D200 D207	C 9283-0		K B*
D208	C 9283-0		K 7*
	<del>-i </del>	DIODE, 1N914/1N414B SOT-23 SMT	
D209 D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K B*
	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	
D213	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2 E 8*
D216	C 9283~0	DIODE, 1N914/1N4148 SOT-23 SMT	
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8808 09/10/99 DWG. NO. DRAWN DΚ PROJ. MD390D0

SHEET 9 OF 20 127353-3



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	□ 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	F 6*
D23Ø	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K S
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E1Ø1	102476-1	LED. SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED. SMT R/A RED	М 1
H1 1		OPEN	K 1
H14		OPEN	I 8
H18		OPEN	D 8
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1.	<del></del>
HS2	102572-3	HS ASM, TI NON-ISOLATED CH2,	
HS3	102569-3	HS ASM, T1 ISOLATED CH1	
HS4	102570-3	HS ASM, T1 ISOLATED CH2, , ,	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
<u>-</u>	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	8 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7		I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD 6-32 X .625 PCB CAPTIVE STUD	J 5
	A10020-7		
HW1 4		6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	84_
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW.6-32 X.5 TORX PNHD SEM	A 4
HW28	<del>-</del> †	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G_10
13 <u> </u>	102472-3	HDR, 1 <u>6</u> POS .100 CTR SGL ROW	мв
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993~1	JACK, 6P4 COND MODULAR R/A	ı

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PROJ.

DK Ø9/10/99

 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517
 PHONE (219) 294-8888

 DRAWN
 DK
 89/18/99
 DWG. NO.
 SHEET 10 OF 20 RE



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	ВЭ
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL. 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I i
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
03	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q1Ø1	C 7448-1	MMBT3904 CHIP NPN	м 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA 50T-23	L 9*
Q1Ø4	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q1Ø8	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q1 1 1	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
0129	C 7448-1	MMBT3804 CHIP NPN	G 9*
0131	125106-1	MAC9D B AMP 400V TRIAC	F 9
0132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
0133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	E 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
0203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q2Ø4	C 9252~5	2N3904 40V NPN TRANSISTOR	1 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	3 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888 DRAWN DK 09/10/99 DWG. NO. SHEET 11 OF 20 REV PROJ. MD39ØDØ



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	€ 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT50B7LT1 PNP XSISTOR SOT-23	2*
Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
 Q2 <b>3</b> 3	102480-1	FET. N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J B*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K Ø.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	Н 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	н э*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 CHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 DHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18		7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø		57.6K 0.10W 1% CHIP 0805	1 9*
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22		392K 0.10W 1% CHIP 0805	
R23		392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	1 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	- N 3"
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R28	A113/1~/511	750 OHM 0.10W 5% CHIP	L 9'
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN DK 09/18/99 DWG, NO. SHEET 12 OF 20 RE DK 09/10/99 DWG. NO. DRAWN MD3SØDØ

PROJ.

SHEET 12 OF 20



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 0*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
F100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101		1K 0.10W 1% CHIP 0805	M 10*
R102		392K Ø.10W 1% CHIP Ø8Ø5	N 9*
R103	A11368-499Ø1	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6B14	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021		L 10 *
R128	A11368-10021		L 10*
R109	<del> </del>	19.1K 0.125W 1% CHIP 1206	M 9*
F110		1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
H112	1	19.1K 0.25W 1% MF	L 9
R113	<del> </del>	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K Ø.1W 1% CHIP Ø8Ø5	L 10*
R115	A11368-68121	68.1K Ø.1ØW 1% CHIP	L 10*
R116	A11368-22601		M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	<del>}</del>	6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021		M 10
R122	A11368-18821	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	-	M 9*
R124		158K 0.10W 1% CHIP 0805	M 9*
R125		100K 0.1W 1% CHIP 0805	N 9*
R126	· · · · · · · · · · · · · · · · · · ·	49.9K Ø.1W 1% CHIP ØBØ5	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128			J 1*
	A11371-6814 A11371-8211	680 OHM 0.50W 5% CHIP 820 OHM 0.10W 5% CHIP	N 7*
R129 R130	VIIIVI-0711	OPEN	0 B*
		OPEN	0.8*
R131	A11371-7777		H 6*
R132	A11371-2223 A11371-7511	2.2K	H 6*
R133			M 7
	C10613-5	1K TOP ADJUST TRIMMER T/R 3.9K 0.25W 5% CHIP	M 7*
R135	A11371-3923		M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	N 8*
R137	A11368-49902		N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	
R139	A11368-13703		N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-B211	B20 OHM 0.10W 5% CHIP	0 8*
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### INC. CROWN INTERNATIONAL ELKHART, INDIANA 46517

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09/10/99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

PHONE (219) 294-8000 SHEET 13 OF 20 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/A	0.8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N B*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R15Ø	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10265-2R74	2.7 OHM 2W 5% CF	I B
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371~1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1321	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-1331 A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-4781	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-1811	5.6 0.25W 5% CHIP	I 5*
R167			
R168	103199-1	0.4 OHM 1W 5% 2512 T/R 0.4 OHM 1W 5% 2512 T/R	E 6*
	103199-1		F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	<u> </u>
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0,10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031		F 8*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021		G 8*
R186	A11368-10031		N 10*
R187		158K 0.10W 1% CHIP 0805	M 10*
R188	-	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031		M 10*
R190		57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601		N 6*
R192		604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196		10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 10
			_

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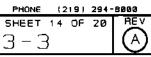
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09/10/99 DWG. NO. DHAWN DΚ PROJ. мрзэйрй

1718 WEST MISHAWAKA ROAD

ELKHART, INDIANA 46517 SHEET 14 OF 20 127353-3



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R198		OPEN	M 18
R199	A11371-ØRØ2	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R2Ø2	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R2Ø5	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0005	J 9*
R2Ø9	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R21Ø	A11368-10011	1K 0.10W 1% CHIP 0805	J B*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K 0.25W 1% MF	J 8
R213	1	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	-	8.25K 0.1W 1% CHIP 0805	J 12#
R215	· —	68.1K 0.10W 1% CHIP	J 10*
R216		226 OHM 0.10W 1% CHIP 0805	K 9*
B217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R21B	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 121Ø	J 9*
R220	<del></del>	90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K Ø.10W 1% CHIP Ø805	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226	<del></del>	49.9K Ø.1W 1% CHIP Ø805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230	7111377 3211	OPEN SA CITE	L 7*
R231	<del></del>	OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	Н 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371~3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-3523	82 OHM 0.10W 5% CHIP	J 7*
R230	A11368-49902	499 OHM 0.125W 1% CHIP	K 8*
R237	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-9333	820 OHM 0.10W 5% CHIP	L B*
R241	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-3333	120 OHM 0.25W 5% CHIP	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
	A11371-1213	13K OHM 0.10W 5% CHIP 0805	J 2*
R246	A     3 /   -   3 3	13K OHM 8,18W 3% CHIE 8883	J Z"
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	<u> </u>		1 .

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000 DK 09/10/99 DWG. NO. DRAWN PROJ. **ODEEDM** 

SHEET 15 OF 20



REF DES	C.P.N.	PARTS LIST_ DESCRIPTION	MAP LOC.
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R25Ø	A11371-5R63	5.6 Ø.25W 5% CHIP	
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
	103199-1		N 4*
R256 R257		0.4 OHM 1W 5% 2512 T/R	N 3*
R257	103199-1 103199-1	0.4 OHM 1W 5% 2512 T/R 0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
	A11371-1381	13K OHM 0.10W 5% CHIP 0805	E 2*
R261			E 2*
R262	A11371-4701	47 OHM Ø. 10W 5% CHIP	
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2* E 2*
9265	A11371-5R63	5.6 Ø.25W 5% CHIP	
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
7271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R <u>274</u>	·	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111		E 8*
R276		10K 1/10W 1% CHIP 0805	E 8*
7277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
7278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 0*
R281	A11371~6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368+10021	10K 1/10W 1% CHIP 0805	D
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290		57.6K 0.10W 1% CHIP 0805	N 3*
R291		226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM Ø.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-51111	5.11K OHM Ø.1ØW 1% CHIP Ø8Ø5	K 10
R298	111111111111111111111111111111111111111	OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K B*
R300	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
1100	167133-1	0.7 OHW IN DA 2012 1/B	

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ELKHART, INDIANA 46517 PHONE (2191 294-8000)

DWG. NO. SHEET 16 OF 20 REV CROWN INC.

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DRAWN	DK	09/10/99
PROJ.	MD	39000

1718 WEST MISHAWAKA ROAD

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R3Ø6	103199-1	Ø. 4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R3Ø8	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN .	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L g
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199~1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R4Ø8	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*
FI412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM Ø.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	к в
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F B
R500	A11368-10021	10K 1/10W 1% CHIP 0805	А Э
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R5Ø3	A11368-10021	10K 1/10W 1% CHIP 0805	8 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R5Ø6	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R500		OPEN	C 2
R600	A11368-10021		A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R605	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN DK 89/18/99 DWG. NO. SHEET 17 OF 20 RE DK 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 17 OF 20 REV



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-B205	B2 OHM 1W 5% CHIP 2512	A 1
R6Ø8		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
52	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
<u> Ш1 Х</u>	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
<u></u>	C 5096-0	NEG. 15 VOLT REG.	Н 9
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	н 9
ЦЗ	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON*500 OHM	м 9
U101	C 9012-3	MC33079D QUAD LO NOISE OF AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D 50-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	127583-1	SENSOR, CE THERMAL	N 6
U200	102723-2	OPTO CELL ON-500 OHM	K 9
U2Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U2 <b>0</b> 2	C 9038-8	COMPARATOR, QUAD LM339D SO-14	к 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	127683-1	SENSOR. CE THERMAL	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OF AMP	A 2
WP1	A11378-A050U		A 10
WP2	103331-N050R		A 9
WP3	A11379-C050U		A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	127442-1	PREP. CE HI-V WIRE	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , .	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 30Z SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAP
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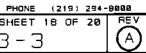
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ELKHART, INDIANA 46517 09/10/99 DWG. NO. DRAWN PROJ. мрзэйрй

1718 WEST MISHAWAKA ROAD

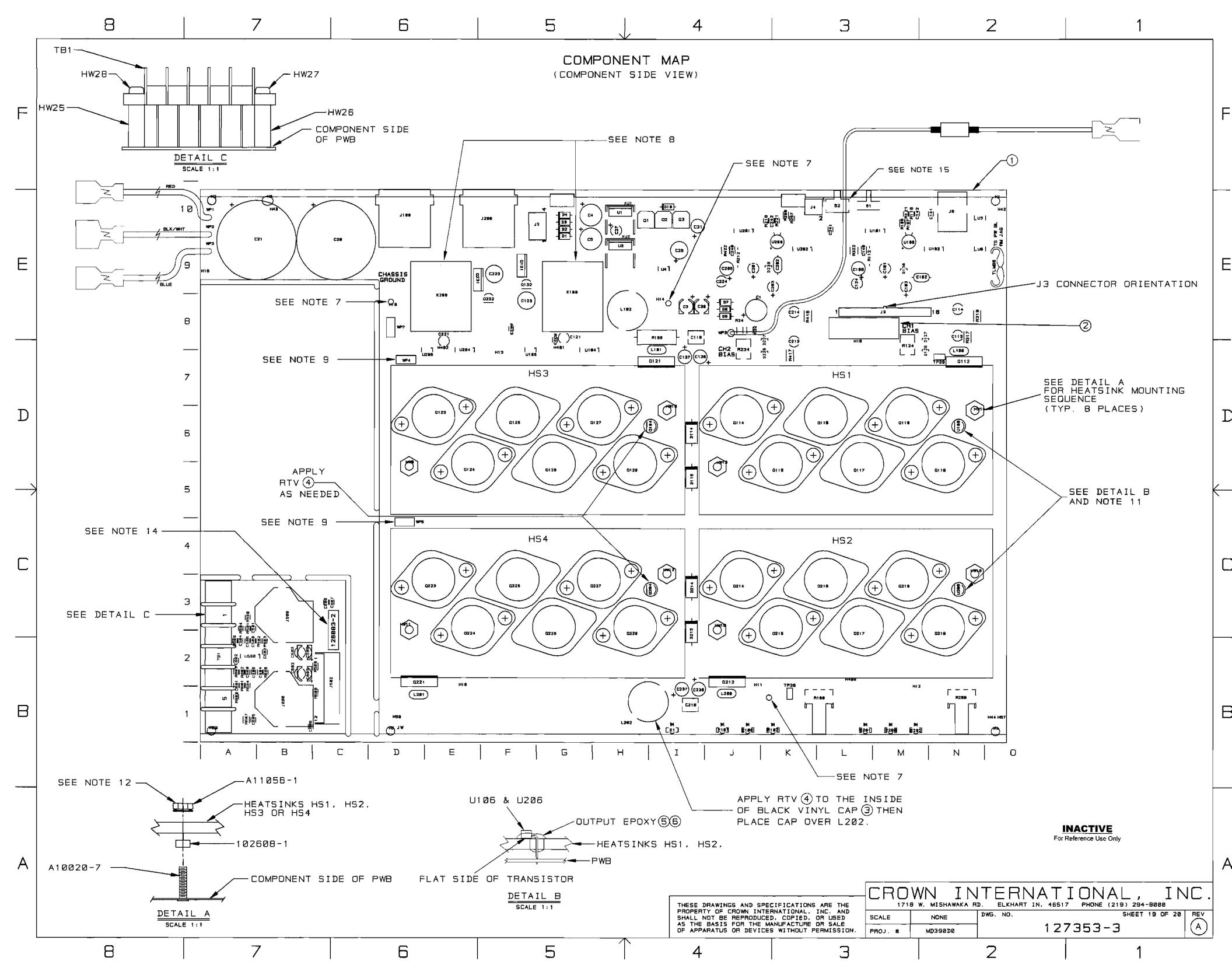
SHEET 18 OF 20

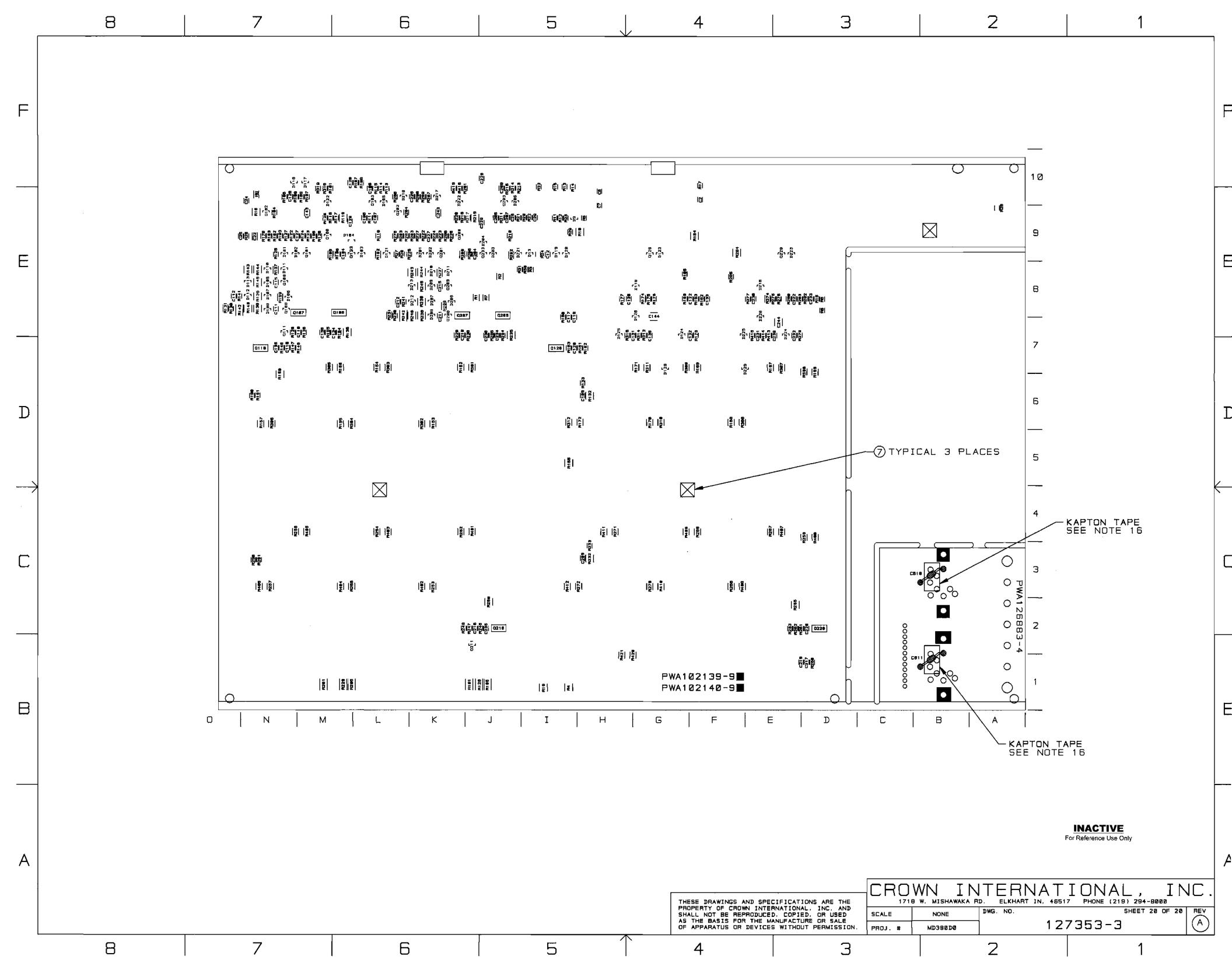




# **Component Map**

for use with Main PWA 127353-3





E.C.N.	ZONE	DEV	DESCRIPTION	DATE	BY	٨	PPAC	<u>JV</u> AL	5
E.L.N.	ZUNE	MEV.	DESCRIPTION	DAILE		Ë	CM	EE	肟
		*	INITIAL RELEASE FOR PRODUCTION.	03-03-99	KLW	щh	8		$\mathfrak{P}$
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#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- 3. THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
   ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM 0123 AND 0223
   TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - TIA. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE

    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR

    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
- 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL 52 REVERSED FROM SILK SCREENING.



### CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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#### CROWN INTERNATIONAL PRINTS TO 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8000 TOL.UNLESS SPECIFIED Κ X.XX . ± 9.920 MAIN/INPUT CE2000 PWA. X.XXX - 1 8.816 DRILLS - ± 0.003 DRAWN 03-03-99 APPROVED BY: DO NOT SCALE PRINT KLW SUPERSEDES aw 03/03/99 CHECKED ME 3-3-99 E.C. SCALE NONE EE REV DWG. NO. SHEET 1 OF 21 PROJ # MD390D0 PE X 3-3-99 Ά 127354-1 FILENAME:127354-1\_A\_01,PCB NEXT ASM:

INACTIVE
For Reference Use Only

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	ΩTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PC8 CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15.HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112.R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118.C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9. R104. R107. R109. R111.
			R121,R176,R177,R182,R185,
			R193, R196, R204, R211, R221,
			R276,R277,R282,R285,R293,
			R296.R313.R413.R500.R501.
			R502, R503, R504, R506, R600,
			R601, R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
X11300 18031			R183,R186,R189,R223,R225,
<del> </del>	<u> </u>		R279.R283.R286.R289
A11368+18221	10.2K 0.10W 1% CHIP 0805	2	R118, R218
	107 CHM 0.25W 1% CHIP	2	R139,R239
	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15002	150 CHM 0.125W 1% CHIP	2	R137, R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	
A11300-13031	156K 0.10W 12 CHIP 0803	<del></del>	R122, R124, R187, R188, R222,
A11350-10172	10 1V 8 12EW 1V CUTD 120E		R224, R287, R288
	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10.R184.R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22.R23.R102.R180.R202.R280
A11368-499Ø1	499 OHM 0.10W 1% CHIP 0005	2	R103, R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415
	57.6K Ø.10W 1% CHIP Ø805		R20.R24.R190.R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-61911	6.19K Ø.10W 1% CHIP Ø8Ø5	2	R197,R297
A11368-68121	6B.1K Ø.19W 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145,R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17.R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142,C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110.C141.C210.C241

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN KLW 03-03-99 DWG. NO. SHEET 2 OF 21 RE KLW 03-03-99 DWG. NO. PROJ. МДЭ90ДО



-	PARTS LIS	 Т	
C.P.N.	DESCRIPTION	TY	REFERENCE DESIGNATION
A11371-ØRØ2	Ø. Ø OHM JUMPER CHIP 1206	4	R199.R299.R323.R423
A11371-0H21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322.R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	RB
A11371~1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146.R161.R246.R261
A11371-1501	15 OHM Ø.1ØW 5% CHIP	5	C606, C607, C608, R160, R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K Ø.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317.R318,R417,R418
A11371~4701	47 DHM 0.10W 5% CHIP	2	R162, R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142, R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34
A11371-5R63	5.6 Ø.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371-5B14	680 OHM 0.50W 5% CHIP	6	R105, R128, R181, R205, R228, R281
A11371-8821	6.8K 0.10W 5% CHIP 0805	2	Rt 27, R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-8201	82 OHM Ø.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427~103K2	0.01MF 50V 10% CHIP 0805	4	C109,C111,C209,C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2, C6, C7, C12, C24, C25, C28, C29,
	-		C115.C122.C126.C127.C128.
			C129.C130.C131.C132.C133.
			C139, C215, C222, C226, C227.
	· · · · · · · · · · · · · · · · · · ·		C228, C229, C230, C231, C232,
	<del>-</del> · ·	_	C233.C239.C505.C506.C605.
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	DB
C 3679~5	33UF 50V 20% VERT ELECT	1	C31
C 4477~3	470 MF 35V VERT	2	C4, C5
	7.0 10 507 7.1.11		
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DRAWN KLW 03-03-99 DWG. NO.

PROJ. MD390D0 1273

PHONE (219) 294-8000 SHEET 3 OF 21 RE



	PARTS LIS	Т	
C. P. N.	DESCRIPTION	DTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MART3904 CHIP NPN	6	0100,0101,0129,0200.0201,0229
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4.U5.U105.U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 8038-8	COMPARATOR, QUAD LM339D 50-1	4	U102, U104, U202, U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9252~5	2N3904 40V NPN TRANSISTOR	2	Q104.Q204
C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 S	56	D9, D13, D101, D102, D103, D104,
<u> </u>	220321 1113117 11111 11 331 23 3		D105.D106.D107.D108.D109.
			D110, D111, D112, D113, D116.
			D117, D118, D119, D120, D121.
-			D122, D123, D124, D125, D126,
			D127.D128.D129.D130.D201.
			D202. D203. D204. D205. D206.
-			D207, D208, D209, D210, D211.
			D212. D213. D216. D217. D218.
			D221, D222, D223, D224, D225.
-			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X, U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102.Q109.Q111.Q202.Q209.Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105.C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114.D115.D214.D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20.C21
H42982-9	ASM. THERMAL SENSE	2	U106, U206
7172302 3	ASMA TALLIMAL SERSE		
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	5	C104.C120.C135.C204.C220.C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101, C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RADIAL 1/R	4	C103, C203, C503, C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
	INDUCTOR, 2.75UH 11A RADIAL	<del>*</del>	L102.L202
102470-1	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102471-2	<del></del>	1	13
1824/2-3	HDR, 16POS .100 CTR SGL ROW   INACTIVE	Į į	

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#### INTERNATIONAL CROWN INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8008
DRAWN KLW 03-83-99 DWG. NO. SHEET 4 DF 21 RE MD390D0 PAOJ.



	PARTS LIS	Т	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,3200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1, E101, E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	73	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	0103,0203
102486-1	OPTO BJT NPN SOIC-8 CTR -100	1	ПЗ
102488-1	SPDT HORIZ SLIDE	1	<b>\$</b> 1
102573-3	HS ASM, T2 ISDLATED CH1, , ,	1	HS3
102574-3	HS ASM, T2 ISOLATED CH2. , .	1	HS4
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,
			HW8
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25.HW26
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100,R200
102723-2	OPTO CELL ON-500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107, Q110, Q207, Q210
103193-1	PNP 300V 500MA 50MHZ SQT-223	4	0105,0120,0205,0220
103199-1	Ø.4 OHM 1W 5% 2512 T/R	54	R1, R7, R152, R153, R154, R155,
			R156, R157, R159, R167, R168,
	_		R169, R170, R171, R172, R252,
			R253, R254, R255, R256, R257,
			R259.R267.R268.R269.R270.
			R271.R272.R300.R301.R302.
		_	R303,R304,R305,R306,R307,
			R308, R309, R310, R311, R312,
			R400, R401, R402, R403, R404,
	-		R405.R406,R407,R408,R409.
			R410, R411, R412
103210-1	2.2UF 160V RADIAL T/R	4	C136, C137, C236, C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70508	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27, HW28
125106-1	MACOD 8 AMP 400V TRIAC	2	0131,0231
125242-1	CAP625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	ø	5
125483-1	ACTIVATOR LOCTITE "DUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3.C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100.K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600
.20020 1	I TO THE TALE OF THE TENT		

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#### INC. CROWN INTERNATIONAL

PROJ.

 
 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 48517
 PHONE (219) 294-9988

 DRAWN
 KLW 03-03-99
 DWG. NO.
 SHEET 5 OF 21
 RE
 MD390D0



KEL DED	C. P. N.	DESCRIPTION	MAP LOC.
	102466-1	10UF 250V 20% RADIAL T/R	1 8
	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
23	125508-1	10UF 50VDC ELECTROLYTIC SMD	İΒ
24	C 4477-3	470 MF 35V VERT	G 10
25	C 4477-3	470 MF 35V VERT	G 9
26	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
27		Ø.1 MF 50V 10% 0805	н 9*
 		0.1 MF 50V 10% 0805	I 9*
20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
221	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
222	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
224		0.1 MF 50V 10% 0805	N 9*
225		0.1 MF 50V 10% 0805	0.9*
226	C 8576-8	100 MF 35V 10% ELEC	I 9
227	C 5362-6	2.2 MF 50V VERT	H 10
28		0.1 MF 50V 10% 0805	J 9*
29		0.1 MF 50V 10% 0805	I 9*
30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
2101	102465-1	.47UF 50V 20% RADIAL T/R	9 M
2102	C 6802-0	.47 MF 50V AX CERM	м 9
2102	102467-1	22MF 25V 20% RAD T/R	- M 9
C104		100PF 200V 10% NPO 0805	M 9*
2105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
2106		56PF 200V 10% NPO 0805	L 9*
2107		27PF 50V 10% NPO 0805 T/R	L 9*
2108		82PF 200V 10% NPO 0805	L 10*
2109		0.01MF 50V 10% CHIP 0805	H 5*
2110		470PF 50V 10% NPD 0805 T/R	M 7*
2111		0.01MF 50V 10% CHIP 0805	N B*
2112		0.012 MF 50V 10% CHIP	O B*
2113	102468-1	47UF 10V 20% NP RAD T/R	N 8
2114	102468-1	47UF 10V 20% NP RAD T/R	
C115		0.1 MF 50V 10% 0805	N 8 N 8*
			N 7*
2116 2117		4700PF 50V 10% X7R 0805 2700PF 50V 10% CHIP 0805	<del></del>
			I 7*
2118		0.1 MF 250V 5% MTL POLY	I 8
2119		4700PF 50V 10% X7R 0805	<del></del>
2120		100PF 200V 10% NPO 0805	I 7*
2121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
2122		0.1 MF 50V 10% 0805	F 8*
2123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F B
2124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
2126		0.1 MF 50V 10% 0805	N 10*
127		Ø.1 MF 50V 10% 0005	N 9*
2128		0.1 MF 50V 10% 0805	M 10*
2129	A11427-104K2	0.1 MF 50V 10% 0805	М 9*
			1

For Reference Use Only

### INTERNATIONAL INC. CROWN 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000 DRAWN KLW 03-03-99 DWG, ND. SHEET 6 CF 21 RE

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PAOJ. MD39@D@



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130		0.1 MF 50V 10% 0805	H 8*
C131		0.1 MF 50V 10% 0805	H 7*
C132		0.1 MF 50V 10% 0805	F 7*
C133		0.1 MF 50V 10% 0805	F 8*
C134		0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135		100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138		82PF 200V 10% NPO 0805	M 7*
C139		0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141		470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 10
C143		0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
$\vdash$		100PF 200V 10% NPO 0805	J 8*
C204		100 MF 25V 20% VERT ELEC	
C205	C10200~4	56PF 200V 10% NPO 0805	7 9*
C206			
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102460-1	47UF 10V 20% NP RAD T/R	K 8
C215		0.1 MF 50V 10% 0805	K 8*
C216		4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1*
C218		0.1 MF 250V 5% MTL POLY	I 1
C219		4700PF 50V 10% X7R 0805	E 1*
C22Ø		100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222		0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226		0.1 MF 50V 10% 0805	K 10*
C227		0.1 MF 50V 10% 0805	K 9*
C228		0.1 MF 50V 10% 0005	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C23Ø		0.1 MF 50V 10% 0805	E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2		E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*
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1718 WEST MISHAWAKA ROAD ELKHART, IND DRAWN KLW 03-03-99 DWG. NO. PROJ. MD390D0

ELKHART, INDIANA 48517 g DWG. NO.

PHONE (219) 294-8000 SHEET 7 OF 21 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	1024 <u>38-101K2</u>	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502		12PF 50V 10% NPO 0805 T/R	B 2
£503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601		12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604		56PF 200V 10% NPO 0805	B 2
C605	•	0.1 MF 50V 10% 0805	A 1
C806	A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C608	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C609	7()1071 1001	OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 1Ø
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	18
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SDT-23 SMT	L 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
			N 8*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<del> </del>
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8800
DRAWN KLW 03-03-99 DWG. NO. SHEET 8 OF 21 RE KLW 03-03-99 DWG. NO. мрээара

PROJ.



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D1@9	C 9283-0	DIODE, 1N914/1N4148 SQT-23 SMT	И 8*
D11Ø	C 9283~0	DIODE, 1N914/1N4148 SOT~23 SMT	№ 8
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	*B //
D112	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	№ 8
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C1@422-1	DIODE, 3A 400V 1N5404 AXIAL	I_5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	6.8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 12*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9203-0	DIODE, 1N914/1N4148 SCT-23 SMT	I 8*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L S*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-Ø	DIODE, 1NB14/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	В М
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	J 9*
D204	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	
D206	C 9283-0	DIODE, 1N914/1N4148 50T-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8*
D208	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N814/1N4148 SQT-23 SMT	K 8*
D212 D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C1Ø422-1	DIODE, 3A 400V 1N5404 AXIAL	1 3
D214 D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	1 2
D215	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT~23 SMT	K 10*
D218	C 9283-0	DIDDE, 1N914/1N4148 SOT-23 SMT	L 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
	C 9283-0		K 9*
D222 D223	C 9283-0		E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	<u>K 8</u>
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KLW 03-03-99 DWG. NO. PAOJ. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8666
DRAWN KLW 03-03-99 DWG. NO. SHEET 9 DF 21 RE 127354-1



2. N. 2283-0 2283-0 2476-1 2477-1 2477-1 2477-1 2477-1 2477-1 2477-1 2477-1 2477-1 2575-3 2576-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1	DESCRIPTION  DIODE, 1N914/1N4148 SOT-23 SMT  DIODE, 1N914/1N4148 SOT-23 SMT  DIODE, 1N914/1N4148 SOT-23 SMT  LED, SMT R/A GREEN  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A RED  HED, SMT R/A RED  HS ASM, T2 NON-ISOLATED CH1,  HS ASM, T2 NON-ISOLATED CH2,  HS ASM, T2 ISOLATED CH1,  HS ASM, T2 ISOLATED CH2,  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED	MAP LOC.  E 7*  F 6*  K 9  I 1  J 1  J 1  K 1  M 1  L 1  M 1  L 5  L 3  G 6  G 3  A 4  A 4  A 4  A 4  A 4  A 4  A 4  A
3283-0 3283-0 2476-1 2477-1 2477-1 2477-1 2477-1 2477-1 2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	DIODE, 1N914/1N4148 SOT-23 SMT DIODE, 1N914/1N4148 SOT-23 SMT LED, SMT R/A GREEN LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED HS ASM, T2 NON-ISOLATED CH1, HS ASM, T2 NON-ISOLATED CH2, HS ASM, T2 ISOLATED CH2, HS ASM, T2 ISOLATED CH2, SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED	F 6*  K 9  I 1  J 1  J 1  K 1  M 1  L 1  M 1  L 5  L 3  G 6  G 3  A 4  A 4  A 4  A 4  A 4  A 4  A 4  A
2283-0 2476-1 2477-1 2477-1 2477-1 2477-1 2477-1 2477-1 2575-3 2576-3 2576-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	DIODE. 1N914/1N4148 SOT-23 SMT LED. SMT R/A GREEN LED. SMT R/A RED LED. SMT R/A RED LED. SMT R/A RED LED. SMT R/A RED LED. SMT R/A RED LED. SMT R/A RED LED. SMT R/A GREEN LED. SMT R/A GREEN LED. SMT R/A RED HS ASM. T2 NON-ISOLATED CH1. HS ASM. T2 NON-ISOLATED CH2. HS ASM. T2 ISOLATED CH1. HS ASM. T2 ISOLATED CH2. SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED SPACER. 6X.125 AL BLK ANODIZED	K 9 I 1 J 1 J 1 K 1 M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4
2476-1 2477-1 2477-1 2477-1 2477-1 2477-1 2477-1 2575-3 2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED, SMT R/A GREEN LED, SMT R/A RED LED, SMT R/A GREEN LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A RED LED, SMT R/A GREEN LED, SMT R/A GREEN LED, SMT R/A RED HS ASM, T2 NON-ISOLATED CH1, HS ASM, T2 NON-ISOLATED CH2, HS ASM, T2 ISOLATED CH1, HS ASM, T2 ISOLATED CH2, SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED	I 1 J 1 K 1 M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4
2477-1 2476-1 2477-1 2477-1 2476-1 2477-1 2575-3 2575-3 2576-3 2576-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED, SMT R/A RED  LED, SMT R/A GREEN  LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A GREEN  LED, SMT R/A GREEN  LED, SMT R/A RED  HS ASM. T2 NON-ISOLATED CH1.  HS ASM. T2 NON-ISOLATED CH2.  HS ASM. T2 ISOLATED CH1.,  HS ASM. T2 ISOLATED CH2.,  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED	J 1 J 1 K 1 M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4
2476-1 2477-1 2477-1 2476-1 2477-1 2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED. SMT R/A GREEN  LED. SMT R/A RED  LED. SMT R/A RED  LED. SMT R/A GREEN  LED. SMT R/A GREEN  LED. SMT R/A RED  HS ASM. T2 NON-ISOLATED CH1.  HS ASM. T2 NON-ISOLATED CH2.  HS ASM. T2 ISOLATED CH1.  HS ASM. T2 ISOLATED CH2.  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED	J 1 K 1 M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4
2477-1 2477-1 2477-1 2477-1 2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED, SMT R/A RED  LED, SMT R/A RED  LED, SMT R/A GREEN  LED, SMT R/A GREEN  LED, SMT R/A RED  HS ASM, T2 NON-ISOLATED CH1,  HS ASM, T2 NON-ISOLATED CH2,  HS ASM, T2 ISOLATED CH1,  HS ASM, T2 ISOLATED CH2,  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED  SPACER, 6X 125 AL BLK ANODIZED	K 1 M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4 B 4
2477-1 2476-1 2477-1 2575-3 2576-3 2576-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED. SMT R/A RED  LED. SMT R/A GREEN  LED. SMT R/A GREEN  LED. SMT R/A RED  HS ASM. T2 NON-ISOLATED CH1.  HS ASM. T2 NON-ISOLATED CH2.  HS ASM. T2 ISOLATED CH1.,  HS ASM. T2 ISOLATED CH2.,  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED	M 1 L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4 B 4
2476-1 2477-1 2575-3 2576-3 2576-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED. SMT H/A GREEN  LED. SMT R/A RED  HS ASM. T2 NON-ISOLATED CH1.  HS ASM. T2 NON-ISOLATED CH2.  HS ASM. T2 ISOLATED CH1.,  HS ASM. T2 ISOLATED CH2.,  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED	L 1 M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4 B 4
2477-1 2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	LED, SMT R/A RED  HS ASM. T2 NON-ISOLATED CH1.  HS ASM. T2 NON-ISOLATED CH2.  HS ASM. T2 ISOLATED CH1.,  HS ASM. T2 ISOLATED CH1.,  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED	M 1 L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4
2575-3 2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	HS ASM. T2 NON-ISOLATED CH1. HS ASM. T2 NON-ISOLATED CH2. HS ASM. T2 ISOLATED CH1. HS ASM. T2 ISOLATED CH2. SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED	L 6 L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4 B 4
2576-3 2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	HS ASM. T2 NON-ISOLATED CH2. HS ASM. T2 ISOLATED CH1. HS ASM. T2 ISOLATED CH2. SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED	L 3 G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4 B 4
2573-3 2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	HS ASM. T2 ISOLATED CH1	G 6 G 3 A 4 A 4 A 4 A 4 B 4 B 4
2574-3 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	HS ASM, T2 ISOLATED CH2.  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER. 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED  SPACER, 6X.125 AL BLK ANODIZED	G 3 A 4 A 4 A 4 A 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	HS ASM, T2 ISOLATED CH2.  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED  SPACER. 6X 125 AL BLK ANODIZED	A 4 A 4 A 4 A 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	SPACER, 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER. 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED SPACER, 6X 125 AL BLK ANODIZED	A 4 A 4 A 4 B 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	A 4 A 4 A 4 B 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1 2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	A 4 A 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	A 4 A 4 B 4 B 4 B 4
2578-1 2578-1 2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	A 4 B 4 B 4 B 4
2578-1 2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	B 4 B 4 B 4
2578-1 2578-1	SPACER, 6X.125 AL BLK ANODIZED SPACER, 6X.125 AL BLK ANODIZED	8 4 8 4
_	SPACER, 6X 125 AL BLK ANODIZED	
_		
302 <b>0</b> -7		D 5
3020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
0020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
3020-7	6-32 X .625 PCB CAPTIVE STUD	1 3
3020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
3020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
3020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
3020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
1056-1	6-32 HEX NUT W/BELLEVILLE	A 4
1056-1	6-32 HEX NUT W/BELLEVILLE	B 4
1056~1	6-32 HEX NUT W/BELLEVILLE	B 4
1056-1	6-32 HEX NUT W/BELLEVILLE	B 4
2579-1	STAND, 1/4 RD SWAGE AL	A 4
2579 <i>-</i> 1	STAND, 1/4 RD SWAGE AL	A 4
		A 4
		A 4
		G 10
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_ ,		L 10
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1571-1		D 10
571 - 1   993 - 1		F 10
571-1   993-1   2473-1		
3	435-70608 435-70608 573-1 472-3 571-1 993-1	435-70608 SCREW.6-32 X.5 TORX PNHD SEM 435-70608 SCREW.6-32 X.5 TORX PNHD SEM 573-1 HDR 4 POS .1 CTR MTA SHRD 472-3 HDR, 16POS .100 CTR SGL ROW 571-1 HDR 2 POS .1 CTR MTA SHRD 993-1 JACK. 6P4 COND MODULAR R/A

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#### CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN KLW 03-03-99 DWG. NO. SHEET 10 OF 21 RE PROJ. MD398D0



	<del></del>	PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	В 3
J502	102471~2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	6.9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	€ 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510~2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н в
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
 L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470~1	INDUCTOR, 2.75UH 11A RADIAL	I 1
<u> </u>	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
<u>03</u>	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	* e M
Q100 Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
	<del></del>	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0102	C 9931-4 102483-1		L 9*
0103		PNP 300V 500MA SOT-23	
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q1Ø8	102481-1	NPN 25V LOW NOISE SOT-23	<u>N 8 * </u>
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
0118	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Ω111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
<u>0</u> 112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
0120	103193-1	PNP 300V 500MA 50MHZ SDT-223	I 7*
0121	103200-1	NPN 230V 15A 30MHZ 25C5242	I_7
	_		
	0.7445.4	NAME TO DO A SOUTH AND A	
0129	C 7448-1	MMBT3904 CHIP NPN	G 9*
0131	125106-1	MAC9D 8 AMP 400V TRIAC	<u> </u>
0132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
Q133	102480-1	FET. N-CH 25V 50MA SOT-23	M 9*
0200	C 744B-1	MMBT3904 CHIP NPN	K 9*
0201	□ 7448~1	MMBT3904 CHIP NPN	K 9*
0202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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1718 WEST MISHAWAKA ROAD KLW 03-03-99 DWG. NO. DRAWN PROJ. мрзаара

ELKHART. INDIANA 46517 PHONE (219) 294-88888 g DWG. NO. SHEET 11 OF 21 RE 127354-1



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q2Ø3	102403-1	PNP 300V 500MA SOT-23	ى 9*
Q2Ø4	C 9252-5	2N3904 40V NPN TRANSISTOR	E I
0205	103193-1	PNP 300V 500MA 50MHZ SOT~223	J 7*
0207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q2Ø8	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	К 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ 50T-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 25C5242	1 ل
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D_1
0229	C 744B-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MACSD 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J B*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	ነ ፀ*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 DHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8		1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10		20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
F117	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K CHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø	M11308-3/621	57.6K 0.10W 1% CHIP 0805	19*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE 1219) 294-8008
DRAWN KLW 03-03-99 DWG. NO. SHEET 12 OF 21 REV MD39@D@

PROJ.



		PARTS LIST	
HEF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22		392K 0.10W 1% CHIP 0805	1 9*
R23		392K 0.10W 1% CHIP 0805	I 9*
824		57.6K 0.10W 1% CHIP 0805	I 9*
R25		100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29	711 / G 1 1 / G 1 1	OPEN	B 2
R3@	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31		100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101		1K 0.10W 1% CHIP 0805	M 10*
8102		392K 0.10W 1% CHIP 0805	N 9*
R103		499 OHM 0.10W 1% CHIP 0805	N 9*
R104		10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	<del></del>	1K 0.10W 1% CHIP 0805	M 9*
R107		10K 1/10W 1% CHIP 0805	L 10*
-			L 10*
R108 R109		10K 1/10W 1% CHIP 0805 19.1K 0.125W 1% CHIP 1206	M 9*
8110		1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K 0.25W 1% MF	L 9
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K 0.1W 1% CHIP 0805	L 10*
R115		68.1K 0.10W 1% CHIP	L 10*
8116		226 OHM 0.10W 1% CHIP 0805	M 9*
8117	A11308-22021	330K 0.10W 5% CHIP 0805	M 9*
R118		10.2K 0.10W 1% CHIP 0805	M 10
8119		33K Ø.25W 5% CHIP 1210	M 9*
			M 9*
R120		90.9K 0.10W 1% CHIP 0805	
R121		158K 0.10W 1% CHIP 0805	M 10
R122 R123	A11368-15631		N 9*
<u> </u>	<b>,_</b>		
R124	A11368-15831	-	M 9*
R125	A11368-10031		N 9*
R126	A11368-49921		M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.8*
R131		OPEN	0.8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN KLW 23-83-99 DWG. NO. SHEET 13 OF 21 REV MD390D0 PROJ.



<u>_</u>		PARTS LIST	-
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	Н 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	м 7
R135	A11371-3923	3.9K Ø.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N B*
R140	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N 8*
F141	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371~1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75803	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM Ø.10W 5% CHIP Ø805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R1 48	A11371~1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 Ø.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199~1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
F156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 DHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I B
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 5*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	1.7*
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*
R167	103199-1	0.4 QHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 DHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 DHM 1W 5% 2512 T/R	G 6*
B172	103199-1	0.4 DHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R177		90.9K 0,10W 1% CHIP 0805	N 9*
R178		100K 0.1W 1% CHIP 0805	F 7*
			F /*
R180		392K 0.10W 1% CHIP 0805	<del></del>
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182		10K 1/10W 1% CHIP 0805	F 8*
F183		100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
	-		
			<u> </u>

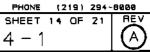
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 KLW 03-03-99 DWG. NO. DRAWN PROJ. **MDBBBDM** 

SHEET 14 OF 21



		PARTS LIST	· ·
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R185	A11388-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	1E001-83E11A	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191		226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193		10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	м 7*
R196		10K 1/10W 1% CHIP 0805	м 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0802	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201		1K 0.10W 1% CHIP 0805	K 10*
H2Ø2		382K Ø.10W 1% CHIP Ø805	L 9*
R2Ø3		499 OHM 0.10W 1% CHIP 0805	L 9*
R204		10K 1/10W 1% CHIP 0805	£ 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206		1K 0.10W 1% CHIP 0805	J 9*
R209		19.1K 0.125W 1% CHIP 1206	K 9*
R21Ø		1K 0.10W 1% CHIP 0805	J 9*
R211		10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K 0.25W 1% MF	9 6
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K 2.1W 1% CHIP 0805	J 10*
R215		68.1K 0.10W 1% CHIP	J 1Ø*
R216	_	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218		10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 121Ø	J 9*
R220		90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 12
B222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K Ø.10W 1% CHIP 0805	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K Ø.10W 5% CHIP 0905	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN SALENTINE	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K Ø.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
,,	711-271 /311	7.00 COM B. FOR DZ CHIL	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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# CROWN INTERNATIONAL INC. 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 45517 PHONE (219) 294-88888 TRIAWAN KIW 173-97-99 DWG, NO. SHEET 15 OF 21 RE

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DHAWN KLW 03-03-99 DWG. NO. PROJ. MD39000

SHEET 15 OF 21



	PARTS LIST							
REF DES	C.P.N.	DESCRIPTION	MAP LOC.					
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7					
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*					
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*					
R237	A11388-15002	150 OHM 0.125W 1% CHIP	К 8*					
R23B	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*					
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*					
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*					
8241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*					
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*					
R243	A11371-33 <b>33</b>	33K 0.25W 5% CHIP 1210	К 8*					
R244	A11371-1213	120 OHM 0.25W 5% CHIP	К В*					
R245	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	K B*					
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*					
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*					
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*					
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*					
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*					
R253	103199-1	0.4 QHM 1W 5% 2512 T/R	К Э*					
H254	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 4*					
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	м э*					
R256	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 4*					
R257	103199-1	Ø.4 DHM 1W 5% 2512 T/R	*E N					
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D Э*					
R260	A11371~1501	15 OHM 0.10W 5% CHIP	D 1*					
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*					
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*					
R263	A11371-1811	180 OHM 0.10W 5% CHIP	Ë 2*					
R265	A11371-5R63	5.6 0.25W 5% CHIP	Ë 2*					
R267	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*					
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*					
R269	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 4*					
R270	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 3*					
R271	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*					
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	Н 3*					
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*					
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*					
R276	A11368-10021	10K 1/10W 1% CHIP 0805	É 8*					
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*					
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*					
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*					
R28Ø	A11368-39231	392K 0.10W 1% CHIP 0805	€ 8*					
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*					
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*					
R283	A11368-10031	100K 0.1W 1% CHIP 0805	€ 8*					
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*					
R285	A11358-10021	10K 1/10W 1% CHIP 0805	F 8*					
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*					
	INACTIVE							

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KLW 03-03-99 DWG. NO. DRAWN MD390D0

PROJ.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (218) 294-8000

DRAWN KIW 03-03-99 DWG. NO. SHEET 16 OF 21 RE SHEET 16 OF 21



		PARTS LIST	.1
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R287		158K 0.10W 1% CHIP 0805	K 10*
R288		158K 0.10W 1% CHIP 0805	K 10*
R289	_	100K Q.1W 1% CHIP 0805	K 10*
R290		57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601		ж и э*
R292		604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM Ø.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021		K 9*
R297	A11368-61911		K 10
R298	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OPEN	K 10
R299	A11371-0802	Ø.Ø OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*
	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R309		Ø.4 OHM (W 5% 2512 T/R	G 6*
R310	103199-1		G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	G 7*
R313	<del>_</del> _	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805 5.11K OHM 0.10W 1% CHIP 0805	H 7*
R315			M 10*
R316 R317	<del></del>	1K 0.10W 1% CHIP 0805 39K OHM 0.50W 5% CHIP 1210	N B
	A11371-3934 A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B
R318	A113/1-3834		M 10*
R319	411271 1812	OPEN	
	1	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G B
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
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МДЗЭЙДЙ PROJ.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (218) 254-8888

DRAWN KLW 03-03-89 DWG. NO. SHEET 17 OF 21 RE



R413 A1 R414 A1 R415 A1 R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	03199-1 11368-10021 11371-3341 11368-51111 11368-10011 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	DESCRIPTION  0.4 OHM 1W 5% 2512 T/R  10K 1/10W 1% CHIP 0805  330K 0.10W 5% CHIP 0805  5.11K OHM 0.10W 1% CHIP 0805  1K 0.10W 1% CHIP 0805  39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206  10K 1/10W 1% CHIP 0805	MAP LOC.  I 3* E 7* E 7* E 7* K 10* K 7 K B K 10* H 1* H 1* J 9 F B A 3
R412 16 R413 A1 R414 A1 R415 A1 R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	03199-1 11368-10021 11371-3341 11368-51111 11368-10011 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	0.4 OHM 1W 5% 2512 T/R  10K 1/10W 1% CHIP 0805  330K 0.10W 5% CHIP 0805  5.11K OHM 0.10W 1% CHIP 0805  1K 0.10W 1% CHIP 0805  39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	I 3* E 7* E 7* E 7* K 10* K 7 K B K 10* H 1* H 1* J 9 F 8
R413 A1 R414 A1 R415 A1 R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11368-10021 11371-3341 11368-51111 11368-10011 11371-3934 11371-5R65 11371-5R65 11371-6R65 11371-1013 11371-0R02 11368-10021	10K 1/10W 1% CHIP 0805  330K 0.10W 5% CHIP 0805  5.11K OHM 0.10W 1% CHIP 0805  1K 0.10W 1% CHIP 0805  39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	E 7* E 7* E 7* K 10* K 7 K B K 10* H 1* H 1* J 9 F 8
R414 A1 R415 A1 R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11371-3341 11368-51111 11368-10011 11371-3934 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	330K 0.10W 5% CHIP 0805 5.11K OHM 0.10W 1% CHIP 0805 1K 0.10W 1% CHIP 0805 39K OHM 0.50W 5% CHIP 1210 39K OHM 0.50W 5% CHIP 1210 OPEN 5.6 OHM 1W 5% CHIP 2512 5.6 OHM 1W 5% CHIP 2512 100 OHM .25W 5% 1210 SMT T/R 0.0 OHM JUMPER CHIP 1206	E 7* E 7* K 10* K 7 K B K 10* H 1* H 1* J 9 F 8
R415 A1 R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11368-51111 11368-10011 11371-3934 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	5.11K OHM 0.10W 1% CHIP 0805  1K 0.10W 1% CHIP 0805  39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	E 7*  K 10*  K 7  K B  K 10*  H 1*  H 1*  J 9  F 8
R416 A1 R417 A1 R418 A1 R419 A1 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11368-10011 11371-3934 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	1K 0.10W 1% CHIP 0805  39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	K 10*  K 7  K B  K 10*  H 1*  H 1*  J 9  F 8
R417 A1 R418 A1 R419 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11371-3934 11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	39K OHM 0.50W 5% CHIP 1210  39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	K 7 K B K 10* H 1* H 1* J 9 F B
R418 A1 R419 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11371-3934 11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021 11368-10021	39K OHM 0.50W 5% CHIP 1210  OPEN  5.6 OHM 1W 5% CHIP 2512  5.6 OHM 1W 5% CHIP 2512  100 OHM .25W 5% 1210 SMT T/R  0.0 OHM JUMPER CHIP 1206	K B K 10* H 1* H 1* J 9 F 8
R419 R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11371-5R65 11371-5R65 11371-1013 11371-0R02 11368-10021	OPEN 5.6 OHM 1W 5% CHIP 2512 5.6 OHM 1W 5% CHIP 2512 100 OHM .25W 5% 1210 SMT T/R 0.0 OHM JUMPER CHIP 1206	K 10* H 1* J 9 F 8
R420 A1 R421 A1 R422 A1 R423 A1 R500 A1	11371-5R65 11371-1013 11371-0R02 11368-10021 11368-10021	5.6 OHM 1W 5% CHIP 2512 5.6 OHM 1W 5% CHIP 2512 100 OHM .25W 5% 1210 SMT T/R 0.0 OHM JUMPER CHIP 1206	H 1* H 1* J 9 F 8
R421 A1 R422 A1 R423 A1 R500 A1	11371-5R65 11371-1013 11371-0R02 11368-10021 11368-10021	5.6 OHM 1W 5% CHIP 2512 100 OHM .25W 5% 1210 SMT T/R 0.0 OHM JUMPER CHIP 1206	H 1* J 9 F 8
R422 A1 R423 A1 R500 A1	11371-1013 11371-0R02 11368-10021 11368-10021	100 OHM .25W 5% 1210 SMT T/R 0.0 OHM JUMPER CHIP 1206	J 9 F B
R423 A1 R500 A1 R501 A1	11371-0R02 11368-10021 11368-10021	0.0 OHM JUMPER CHIP 1206	F 8
R500 A1	11368-10021 11368-10021		
R501 A1	11368-10021	<u> </u>	. A 5
		10K 1/10W 1% CHIP 0805	A 2
	11368-100711	10K 1/10W 1% CHIP 0805	B 2
		10K 1/10W 1% CHIP 0805	8 2
		10K 1/10W 1% CHIP 0805	A 2
	<del></del>	10K 1/10W 1% CHIP 0805	A 2
R508	11363 10021	DPEN SSSS	C 2
<del></del>	11368-10021	10K 1/10W 1% CHIP 0805	A 1
		10K 1/10W 1% CHIP 0805	A 1
		10K 1/10W 1% CHIP 0805	A 2
		10K 1/10W 1% CHIP 0805	A 2
		10K 1/10W 1% CHIP 0805	A 1
<del></del>		10K 1/10W 1% CHIP 0805	B 2
<del></del>	11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608	113/1 0203	OPEN	C 1
<del></del>	<u></u>	SPDT HOAIZ SLIDE	L 10
<del></del>	7325-1	2P 2 POS. PC SLIDE SW.	L 10
<del></del>	02475-1	BLOCK, 5 POS TERMINAL	A 2
<b>—</b>	9896-9	TEST POINT LOOP	K 1
	9896-9	TEST POINT LOOP	N 7
<del></del>	5095-2	POS. 15 VOLT REG.	H 10
	9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
	5096-0	NEG. 15 VOLT REG.	H 9
	9918-1	T0220 VERT CLIP-ON HEATSINK	Н 9
<del></del>	02486-1	OPTO BJT NPN SOIC-8 CTR -100%	N 10
<del></del>	8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
-	9262-5	MC33078D DUAL LO NOISE OP AMP	N 9
	02723-2	OPTO CELL ON-500 OHM	M 9
	9012-3	MC33079D QUAD LO NOISE OF AMP	M 10
	9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
<del></del>	9038-8	COMPARATOR, QUAD LM339D SQ-14	G 7
<del> </del>	8262-5	MC33078D DUAL LO NOISE OF AMP	F 7
	42902-9	ASM. THERMAL SENSE	N 6
	02723-2	OPTO CELL ON-500 OHM	K 9
	9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
	9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
	9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U207 L	3830 0	COM STATE OF GUAD EMBUDD DO 14	L /

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1718 WEST MISHAWAKA ROAD KLW 03-03-99 DWG. NO. DRAWN мрээоро PROJ.

ELKHART, 1NDIANA 48517 PHONE (219) 294-8088 B DWG. NO. SHEET 18 OF 21 RE 127354-1



		PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP	LOC.	
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7	
U2Ø6	H42902-9	ASM, THERMAL SENSE		ΕИ	
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP		A 2	
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM		A 10	
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T		A 9	
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM		A 9	
WP4	101031-1	.250 FASTON, AUTO INSERTABLE		D 7	
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4	
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST		J 8	
WP7	101031-1	.250 FASTON, AUTO INSERTABLE		D 8	
Z1		OPEN		E 9	
1	102138~9	PWB, CE1000/CE2000 MAIN/INPU	SEE	COMP	MAP
2	101016-1	LBL. BARCODE, , ,		COMP	
3	125242-1	CAP, ,625ID X 1" VINYL		COMP	
4	126825-1	SILICONE, CLEAR 30Z SYRINGE		COMP	
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT		COMP	
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"		COMP	
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	+	COMP	-
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	_	COMP	
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	-	COMP	
	120100				74.1.1.
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For Reference Use Only

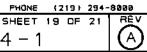
#### INTERNATIONAL CROWN INC. 1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517

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KLW 03-03-99 DWG. NO. DRAWN MD390D0

PROJ.

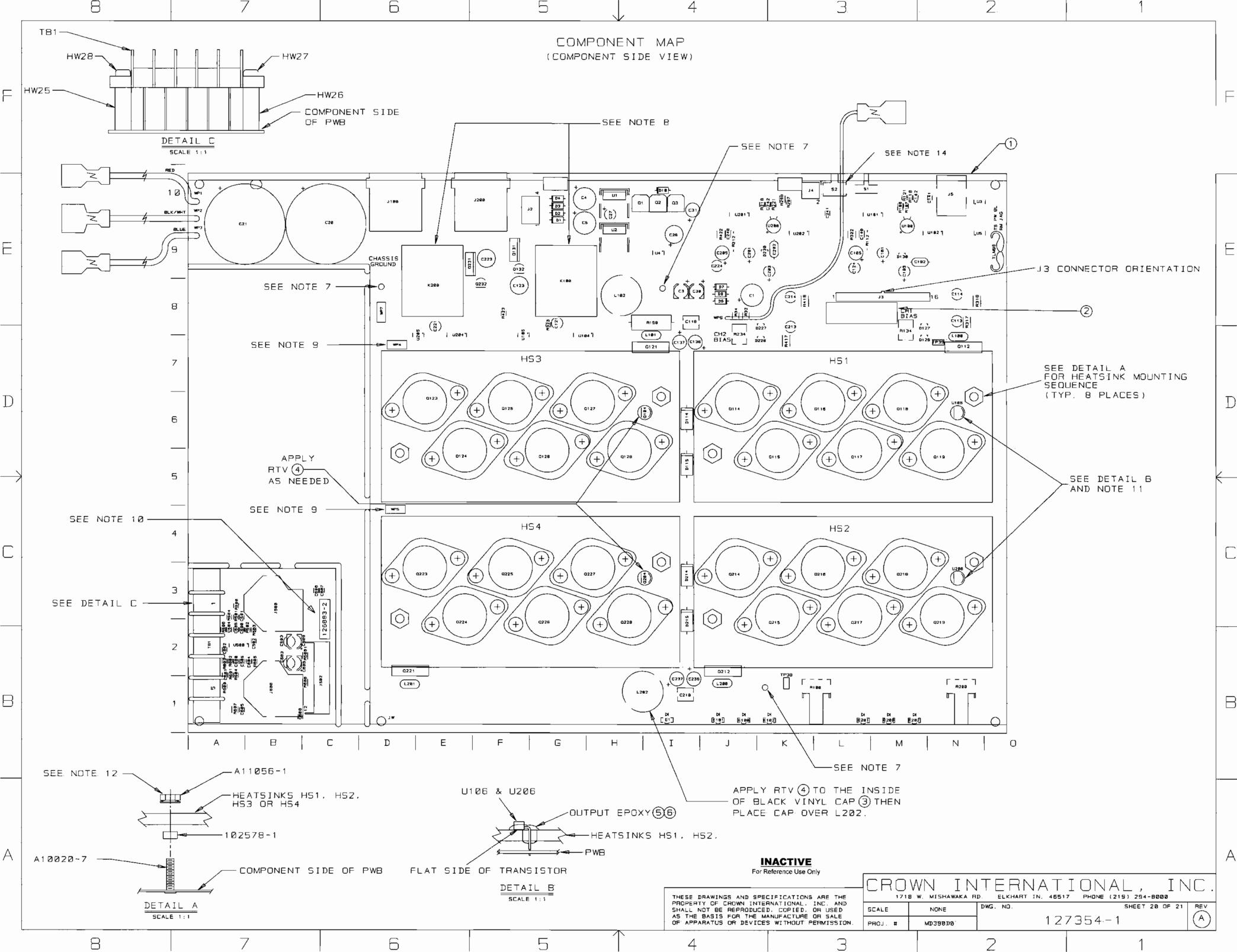
SHEET 19 OF 21

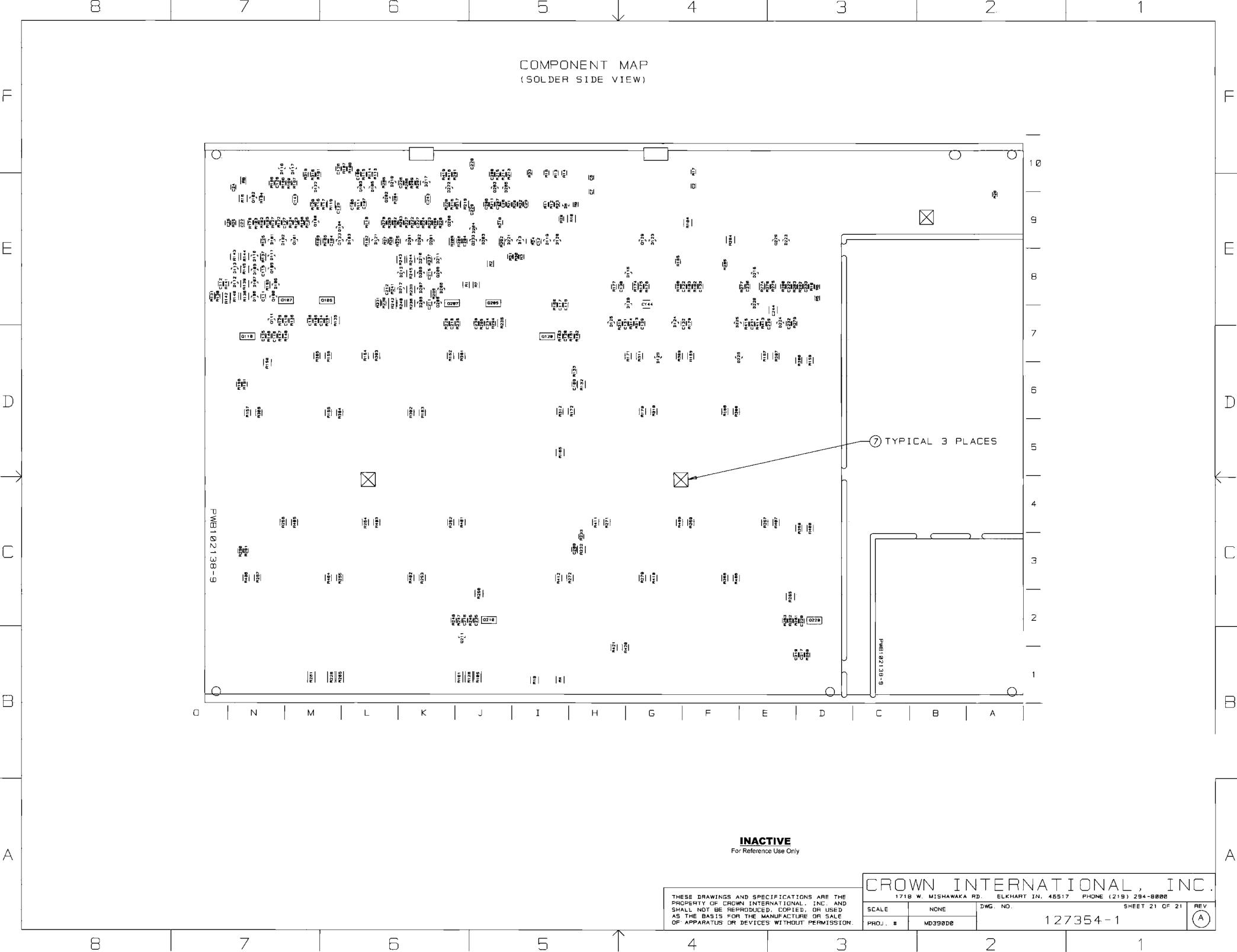




# **Component Map**

for use with Main PWA 127354-1





	E.C. N.	ZONE		DESCRIPTION	,	DATE (		DATE 6		DATE		Al	PPAC	3VAL	S
l	E. L. IV.	ZUNE	HEY.	1536UTF   10N						CHK	CM	EE	PE		
			*	INITIAL RELEASE FOR PRODUCTION.	03	-29-99	KLW	)aw	کر	CDA	98				
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#### NOTES:

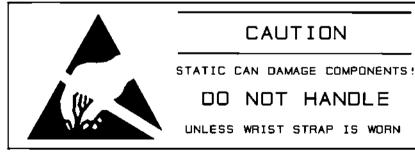
- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138+9.
- THE PWA SHALL MEET THE IPC-A-610, CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
- ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING. THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223
   TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- t1. INSTALLATION OF U105 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
  - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL 8.
  - 11D. MIX DUTPUT EPDXY AND ACCELERATOR TOGETHER.

    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE
    LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR

    AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
  - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL S2 REVERSED FROM SILK SCREENING.



#### INACTIVE

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PRINTS TO			1718 WEST	MISHAWA	KA ROAD	ELKH	ART.	INDIANA 48	517	PHONE (219) 25	34-8600
	K		P	WA,	MAIN/	IN	PUT	CE20	00	TOL.UNLESS SPE X.XX - ± X.XXX - ± DRILLS - ±	8.828 8.819
			DRAWN	KLW	03~29-99	٨	PPAQ'	VED BY:	DO NO	T SCALE PRI	NT
			CHECKED	Jaw	0329-99	ME	8	3-30-99	SUPERSED	ES	
			SCALE	SCALE NONE				4/4	E.C.	•	
			PRQJ #	MD	39 <b>0</b> D0	PE	<b>19</b>	3-30-99	DWG. ND.	SHEET 1 OF 21	FLEV
			FILENAME:127354-2_A_81.PC8				ĆŤ AS	iM:	127	354-2	

	PARTS LIS	T	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
Ä10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K Ø.25W 1% MF	2	R112.R212
A10266-2R74	2.7 DHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 258V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17.HW18.HW19.HW20.HW21.
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	В	R101,R106,R110,R201,R206,
			R210.R316.R416
A11360-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111,
		_	R121,R176,R177,R182,R185,
			R193,R196,R204,R211,R221,
		_	R276.R277.R282.R285.R293.
			R296, R313, R413, R500, R501,
			R502, R503, R504, R506, R600,
			R601,R602,R603,R604,R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
			R183,R186,R189,R223,R225,
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118.R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239
A11368-12121	12.1K DHM 0.10W 1% CHIP 0805	1	R21
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
7777000 14441	1001		R224, R287, R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	Б	R22, R23, R102, R100, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49921	49.9K Ø.1W 1% CHIP Ø805	2	R126,R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415
A11368-57621	1		R20.R24.R190.R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-61911	6.19K Ø.1ØW 1% CHIP Ø8Ø5	2	R197, R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	85
A11368-75R03	75 OHM Ø.25W 1% CHIP 1210	2	R145.R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	818
A11368-82511	8.25K Ø.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	86
A11368-93111	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
			_
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500.C501.C502.C600.C601.C602
A11369-270K2		2	C143 C243
A11369-330J2		2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110.C141.C210.C241
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ELKHART, INDIANA 46517 KLW 03-29-99 DWG. NO. DRAWN PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 2 OF 21 REV

PHONE (219) 294-8000



	PARTS LIST					
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION			
A11371-0R02	Ø.Ø OHM JUMPER CHIP 1206	4	R199, R299, R323, R423			
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33			
A11371-1011	100 OHM 0.10W 5% CHIP 0805	ı.	R13,R147,R247			
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422			
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8			
A11371-1213	120 OHM 0.25W 5% CHIP	4	R130, R144, R230, R244			
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261			
A11371-1501	15 OHM 0,10W 5% CHIP	5	C606.C607.C608.R160.R260			
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263			
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232			
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2			
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19			
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243			
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3. R11, R26, R117, R217, R314,			
	-		H414			
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235			
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418			
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162, R262			
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142.R242			
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34			
A11371-5R63	5.6 0.25W 5% CHIP	4	R150.R165,R250.R265			
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420.R421			
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281			
A11371~6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227			
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233			
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294			
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607			
A11371-8211	820 OHM 0.10W 5% CHIP	5	R129,R141,R195,R229,R241,R295			
A11378-A050U	WIRE. 16 RED FAST X 5 X TERM	1	WP1			
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3			
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109, C111, C209, C211			
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243			
A11427-104K2	0.1 MF 50V 10% 0805	33	C2, C6, C7, C12, C24, C25, C28, C29,			
			C115.C122.C126.C127.C128.			
			C129, C130, C131, C132, C133,			
			C139, C215, C222, C226, C227,			
			C228, C229, C230, C231, C232,			
			C233, C239, C505, C506, C605,			
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112.C212			
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217			
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219			
C 2851~1	1N4004 SILICON RECT.	7	D1.D2,D3,D4,D6,D7,D10			
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201			
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8			
C 3679-5	33UF 50V 20% VERT ELECT	t	C31			
C 4477-3	470 MF 35V VERT	2	C4, C5			
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	IN A OTIVE					

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### CROWN INTERNATIONAL INC. 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE 12191 294-8000 DRAWN KLW 03-29-99 DWG, NO. SHEET 3 OF 21 RE

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PROJ. MD390D0

127354~2



	PARTS LIS	Ŧ	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6002-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22.C149.C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	52
C 7448-1	MMBT3904 CHIP NPN	6	Q100.Q101.Q129.Q200.Q201.Q229
C 8262-5	MC33078D DUAL LO NOISE OF AM	4	U4, U5, U105, U205
C 8576~8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OF AM	Э	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102, U104, U202, U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104.0204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9. D13. D101. D102. D103. D104.
			D105, D106, D107, D108, D109,
			D110.D111.D112.D113.D116.
			D117, D118, D119, D120, D121,
			D122, D123, D124, D125, D126,
			D127, D128, D129, D130, D201,
			D202, D203, D204, D205, D206.
			D207, D208, D209, D210, D211.
			D212. D213, D216, D217, D218,
			D221, D222, D223, D224, D225.
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109,0111,0202,0209,0211
C1Ø196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20. C21
H42902-9	ASM, THERMAL SENSE	2	U106.U206
101016-1	LBL. BARCODE	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238
102455-1	-		
102466-1	.47UF 50V 20% RADIAL T/R 10UF 250V 20% RADIAL T/R	1	C101,C201
102466-1	22MF 25V 20% RAD T/R		
-		4	C113, C114, C213, C314
102468-1	47UF 10V 20% NP RAD T/R	4	C113, C114, C213, C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102, L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3 102473-1	HDR. 16POS .100 CTR SGL ROW	1	J3 J100.J200
1 1 10 7 4 7 4 - 1	SPEAKON, 4 POLE PCB HORZ	12	

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#### INTERNATIONAL INC. CROWN

MD390D0 PROJ.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8888
DRAWN KLW 83-29-99 DWG, NO. SHEET 4 OF 21 RE



	PARTS LIS	Τ	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101.E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132.Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133.Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108, Q208
102483-1	PNP 300V 500MA SOT-23	2	0103.0203
102486-1	OPTO BJT NPN SOIC-8 CTR -100	1	U3
102488-1	SPDT HORIZ SLIDE	1	51
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	HS3
102574-3	HS ASM, TZ ISOLATED CH2,	1	HS4
102575-3	HS ASM, T2 NON-ISOLATED CH1.	1	HS1
102576-3	HS ASM. T2 NON-ISDLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,
		<u> </u>	HWB
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26
102595~3	POT, 5K LIN 21 DNT 12MM HORI	2	R100, R200
1,2200	<u> </u>		
	<del></del>		
102723-2	OPTO CELL ON-500 OHM	2	U100,U200
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7
103191-1	Ø.47UF Z5U 1210 20% 50V	2	C144, C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	0105.0120.0205.0220
103199-1	0.4 OHM 1W 5% 2512 T/R	54	R1,R7,R152,R153,R154,R155.
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<u> </u>	R156, R157, R159, R167, R168,
			R169, R170, R171, R172, R252,
		<u> </u>	R253,R254,R265,R256,R257,
			R259,R267,R268,R269,R270,
	-		R271.R272,R300,R301,R302,
	-		R303.R304,R305.R306.R307.
		<u> </u>	R308,R309,R310,R311,R312.
			R400, R401, R402, R403, R404,
	-	<del>                                     </del>	R405,R406,R407,R408,R409,
			R410, R411, R412
103210-1	2.2UF 160V RADIAL T/R	4	C136, C137, C236, C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27, HW28
125106-1	MACOD 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482~1	ADHESIVE LOCTITE 384 OUTPUT	à	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	ē	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C30
126317-1	REL. 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR BOZ SYRINGE	Ø	4
126929-1	1/4" TRS/XLA COMBO PCB VERT	2	J500, J600
127442-1	PREP, CE HI-V WIRE		WP6
14114 1	· · · =		0

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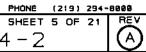
#### INC. CROWN INTERNATIONAL ELKHART, INDIANA 48517

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KLW 03-29-99 DWG. NO. DRAWN PROJ. MD39@D@

1718 WEST MISHAWAKA ROAD

SHEET 5 OF 21



	PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
Ci	102466-1	10UF 250V 20% RADIAL T/R	J B		
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*		
С3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I B		
C4	C 4477-3	470 MF 35V VERT	G 10		
C5	C 4477-3	470 MF 35V VERT	G 9		
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*		
C7	A11427-104K2	0.1 MF 50V 10% 0905	н 9*		
C12	A11427-104K2	0.1 MF 50V 10% 0805	19*		
C2Ø	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9		
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9		
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*		
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*		
C25		0.1 MF 50V 10% 0805	0.9*		
C26	C 8576-8	100 MF 35V 10% ELEC	I 9		
C27	C 5362-6	2.2 MF 50V VERT	Н 10		
C28		0.1 MF 50V 10% 0805	J 9*		
C29		0.1 MF 50V 10% 0805	I 9*		
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8		
C31	C 3679-5	33UF 50V 20% VERT ELECT	1 10		
C1Ø1	102465-1	.47UF 50V 20% RADIAL T/R	M 9		
C102	C 6802-0	.47 MF 50V AX CERM	м 9		
C103	102467-1	22MF 25V 20% RAD T/R	м 9		
C1Ø4		100PF 200V 10% NPO 0805	м 9*		
C105		100 MF 25V 20% VERT ELEC	L 9		
C106		56PF 200V 10% NPO 0805	L 9*		
C107		27PF 50V 10% NPO 0805 T/R	L 9*		
C108		82PF 200V 10% NPO 0805	 L 10*		
C109		0.01MF 50V 10% CHIP 0805	H 6*		
C1 10		470PF 50V 10% NPO 0805 T/R	M 7*		
C111		0.01MF 50V 10% CHIP 0805	N 8*		
C112		0.012 MF 50V 10% CHIP	0.8*		
C1 13	102468-1	47UF 10V 20% NP RAD T/R	N 8		
C114	102468-1	47UF 10V 20% NP RAD T/R	N B		
		0.1 MF 50V 10% 0805	N 8*		
C116		4700PF 50V 10% X7R 0805	N 7*		
C117		2700PF 50V 10% CHIP 0805	I 7*		
C118		Ø.1 MF 250V 5% MTL POLY	I 8		
C119		4700PF 50V 10% X7R 0805	I 7*		
C120		100PF 200V 10% NPO 0805	I 7*		
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8		
C122	<b>————</b>	Ø.1 MF 50V 10% 0805	F 8*		
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8		
C124	C1Ø196-1	2.2MF 50V 20% RAD T/R	L 9		
C126		0.1 MF 50V 10% 0805	N 10*		
C127		0.1 MF 50V 10% 0805	N 9*		
C128		0.1 MF 50V 10% 0805	M 10*		
C129		0.1 MF 50V 10% 0805	м в*		
			<u></u>		
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48617 KLW Ø3-29-99 DWG, NO. DRAWN МДЗ90Д0

PROJ.

PHONE (219) 294-8888 SHEET 6 OF 21 RE



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	н в∗
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	м 7*
C135	102438-101K2	100PF 200V 10% NPC 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 150V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	м 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143		0.01MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	К 9
C203	102457-1	22MF 25V 20% RAD T/R	к 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J g∗
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0905	н з*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K B
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427~104K2	0.1 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J S
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	К 9*
C228	<del> </del>	0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	*9 د
C23Ø		0.1 MF 50V 10% 0805	€ 8*
C231	A11427-104K2	0.1 MF 50V 10% 0005	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	€ 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*
	111467117		

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN KLW 23-29-99 DWG, NO. SHEET 7 OF 21 RE PROJ. мрээрра



C.P.N.		
	DESCRIPTION	MAP LOC.
		J 7*
		J 2*
		I 1
		I 1
		J 7*
		Ë 7*
		J 9
	-	L 10
		K 10
		K 9*
		E 7*
		A 2
		A 2
A11369-120K2		8 2
102467-1		B 2
		A 2
		A 2
A11427-104K2		A 2
	OPEN	B 2
		A 2
A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
102467-1	22MF 25V 20% RAD T/R	B 2
102430-560K2	56PF 200V 10% NPO 0805	B 2
A11427-104K2	0.1 MF 50V 10% 0805	A 1
A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
A11371-1501	15 OHM .1W 5%_0805 T/R	B 1
	OPEN	B 2
C 2851-1	1N4004 SILICON RECT.	G 9
C 2851-1	1N4004 SILICON RECT.	G 10
C 2051-1	1N4004 SILICON RECT.	G 10
C 2851-1	1N4004 SILICON RECT.	G 10
C 2851-1	1N4004 SILICON RECT.	J B
C 2851-1	1N4004 SILICON RECT.	J 8
C 3549-0	DIODE ZENER. 10V. 1N5240B	J B
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
C 2851-1	1N4004 SILICON RECT.	I 10
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
C 9283~0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	N 9*
C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	L 9*
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 9*
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
	102438-101K2 103210-1 103210-1 102438-820K2 A11427-104K2 C 7091-9 A11369-471K2 A11369-330J2 A11427-103K5 103191-1 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 A11369-120K2 C 2851-1	103210-1 102438-820K2 82PF 200V 10% NPO 0805 A11427-104K2 0.1 MF 50V 10% 0805 C 7091-9 0.33 MF 50V CHIP 1206 A11369-3471K2 470PF 50V 10% NPO 0805 T/R A11369-3491K3 23PF 50V 5% NPO MLC 0805 A11427-103K5 0.01MF 50V 5% NPO MLC 0805 A11427-103K5 0.01MF 50V 5% NPO MLC 0805 A11427-103K5 0.01MF 50V 5% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 T/R A11369-120K2 12PF 50V 10% NPO 0805 A11427-104K2 0.1 MF 50V 10% 0805 A11427-104K2 0.1 MF 50V 10% NPO 0805 A11427-104K2 0.1 MF 50V 10% NPO 0805 A11369-120K2 12PF 50V 10% NPO 0805 A11369-120K2 12PF 50V 10% NPO 0805 A11369-120K2 12PF 50V 10% NPO 0805 A1137-150K2 12PF 50V 10% NPO 0805 A11371-150H 15 OHM .1W 5% 0805 A11427-104K2 0.1 MF 50V 10% 0805 A11

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# CROWN INTERNATIONAL INC. 1718 WEST MISHAWAKA ROAD ELXHART, INDIANA 48517 PHONE (219) 294-88888 DRAWN KLW 03-29-98 DWG. NO. SHEET 8 OF 21 RE-

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PROJ. MD390D0



	PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*		
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*		
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*		
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*		
D113	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*		
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	16		
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5		
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*		
D117	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*		
D118	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*		
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*		
D120	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*		
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*		
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*		
D123	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*		
D124	C 9283~0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*		
D125	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*		
D126	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 7		
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м в		
D128	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	G 7*		
D129	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*		
D130	C 9283-Ø	DIODE, 1N914/1N4148 SOT~23 SMT	м 9		
D201	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*		
D202	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*		
D203	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*		
D204	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*		
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*		
D206	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	к в*		
D207	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*		
D208	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	K 7*		
D209	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*		
D210	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*		
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*		
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*		
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*		
D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	1 3		
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2		
D216	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*		
D217	C 9283-0	DIQDE. 1N914/1N4148 SOT-23 SMT	K 10*		
D218	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 10*		
D221	C 9203-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*		
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	к 9*		
D223	C 9283~0	DIQDE. 1N914/1N4148 SOT-23 SMT	E 9*		
D224	C 9283-0	DIODE. 1N914/1N414B SOT-23 SMT	E 7*		
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*		
D226	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 7		
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8		
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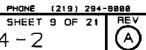
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN KLW 03-29-99 DWG, NO. PROJ. MD390D0

SHEET 9 OF 21



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E 1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E1Ø1	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LÉD, SMT R/A RED	K 1
E200	102477-1	LED. SMT R/A RED	M 1
E201	102476-1	LED. SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1.	L 6
HS2	102576-3	HS ASM. T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM. T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2. , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
нwэ	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 @	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
E IWH	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PC8 CAPTIVE STUD	N 6
HW1 5	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 8	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1 9	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW2Ø	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	<del></del>	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	+	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13	102472-3	HDR, 16POS .100 CTR SGL ROW	мв
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	<u> </u>
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
	, , , , , , , , , , , , , , , , , , , ,	<u></u>	1
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517
DRAWN KLW 03-29-99 DWG. NO. **MD390D0** 

PROJ.

PHONE (219) 294-8000 SHEET 10 OF 21 RE



	PARTS LIST					
REF DES	C.P.N.	DESCRIPTION	MAP LOC.			
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	вз			
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1			
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1			
K100	126317-1	REL. 30A 24V SPST PCB W/FASTON	G 9			
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9			
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7			
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	1 7			
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	н 8			
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1			
L201	C 3510-2	CHOKE. 470UH 10% AXIAL	D 1			
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1			
01	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10			
02	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10			
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10			
0100	C 7448-1	MRT3904 CHIP NPN	м 9*			
0101	C 7448-1	MMBT3904 CHIP NPN	м 9*			
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*			
0103	102483-1	PNP 300V 500MA SOT-23	L S*			
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	16			
0105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*			
		-				
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*			
0108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*			
0109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*			
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*			
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*			
Q112	103200-1	NPN 230V 15A 30MHZ 25C5242	N 7			
0120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*			
Q121	103200-1	NPN 230V 15A 30MHZ 25C5242	I 7			
ļ						
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*			
0131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9			
Q132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9			
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*			
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*			
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*			
Q2Ø2	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*			
			•			

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 KLW 23-29-99 DWG, NO. DHAWN

MD390D0

PROJ.

PHÓNE (219) 294-8000 SHEET 11 OF 21



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q2Ø3	102483-1	PNP 300V 500MA SOT-23	J 9*
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
0205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q2Ø7	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
0208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 8931-4	MMBT5087LT1 PNP XSISTOR SOT-23	К 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ 50T-223	J 2*
<u>0</u> 211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
	-		
	·	,	
0220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 25C5242	D 1
		-	
<del></del>			
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
0231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS 8V THRESH	F B
0233	102480-1	FET. N-CH 25V 50MA SOT-23	J 9*
R1	103199~1	Ø.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	2.4 OHM 1W 5% 2512 T/R	J 8*
R8		1K 0.125W 5% CHIP 1206	N 10*
R9		10K 1/10W 1% CHIP 0805	Н 9*
R10		20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	1 9*
R12		68.1K Ø.1@W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R1 4	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17		8.25K 0.1W 1% CHIP 0805	F 10*
R18	•	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621		I 9*
1120	ATTUBO-07621	37. UK 8. 18# 1% CHIF MOMS	1 3 7
		<u> </u>	

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517
DRAWN KLW 03-29-99 DWG. NO.

MD39010

PROJ.

PHONE (219) 294-8888 SHEET 12 OF 21 RE



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R21		12.1K OHM 0.10W 1% CHIP 0805	J 9*	
R22		392K 0.10W 1% CHIP 0805	I 9*	
R23		392K Ø.10W 1% CHIP 0805	I 9*	
R24		57.6K 0.10W 1% CHIP 0805	I 9*	
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*	
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*	
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*	
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*	
R29	XX 13/1 /3(1	OPEN	B 2	
R30	A11368-10031	100K 0.1W 1% CHIP 0805	18*	
R31		100K 0.1W 1% CHIP 0805	J 8*	
R32	A11371-5615		1 8	
R33		560 OHM 1W 5% 2512 T/R	<del> </del>	
<b></b>	A11371-0R21	0.2 DHM 0.10W 5% CHIP 0805	I 10*	
R34	A11371-5615	560 OHM 1W 5% 2512 T/A	J B	
R100	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	L 1	
R101		1K 0.10W 1% CHIP 0805	M 10*	
R102		392K 0.10W 1% CHIP 0805	N 9*	
R103		499 OHM 0.10W 1% CHIP 0805	N 9*	
R104		10K 1/10W 1% CHIP 0005	N 9*	
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R106		1K 0.10W 1% CHIP 0805	M 9*	
R1 <u>Ø</u> 7		10K 1/10W 1% CHIP 0805	L 10*	
R108	<del>                                     </del>	10K 1/10W 1% CHIP 0805	L 10*	
R109		19.1K 0.125W 1% CHIP 1206	м 9*	
8110		1K 0.10W 1% CHIP 0805	L 9*	
R111		10K 1/10W 1% CHIP 0805	L 9*	
R112	<del>                                     </del>	19.1K 0.25W 1% MF	L 9	
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*	
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*	
Pt 15	A11368-68121	68.1K 0.10W 1% CHIP	L 10*	
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*	
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*	
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10	
R119	A11371-3333	33K 0.25W 5% CHIP 1210	м 9*	
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*	
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M_10	
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*	
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*	
R124	A11368-15831	158K 0.10W 1% CHIP 0805	_ M 9*	
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*	
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*	
R127	A11371~6821	6.8K 0.10W 5% CHIP 0805	N 9*	
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*	
R13Ø		OPEN	0.8*	
R131		OPEN	0 8*	
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*	
			1	
			1	
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888 DRAWN KLW 63-29-99 DWG, NO. SHEET 13 OF 21 RE MD390D0

PROJ.



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*	
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	М 7	
R135	A11371-3923	3.9K Ø.25W 5% CHIP	M 7*	
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*	
R137	A11369-15002	150 OHM 0.125W 1% CHIP	N 8*	
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
R139	A11368-10703	107 OHM 0.25W 1% CHIP	и 8*	
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N B*	
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0.8*	
Fit 42	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0.8*	
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*	
R144	A11371-1213	120 DHM 0.25W 5% CHIP	N 8*	
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*	
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*	
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*	
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*	
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*	
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*	
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*	
R154	103199-1	0.4 DHM 1W 5% 2512 T/R	L 6*	
R155	103199-1	0.4 DHM 1W 5% 2512 T/R	M 5*	
R156	103199-1	Ø.4 DHM 1W 5% 2512 T/R	м 6*	
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R158	A10266-2R74	2.7 OHM 2W 5% CF	18	
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*	
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*	
R161	A11371-1331	13K DHM 0.10W 5% CHIP 0805	н 7*	
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*	
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*	
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*	
R167	103199~1	0.4 OHM 1W 5% 2512 T/A	E 6*	
R168	103199-1	0.4 DHM 1W 5% 2512 T/R	F 6*	
R169	103199-1	0.4 DHM 1W 5% 2512 T/R	F 6*	
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
R171	123199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
R172	103199-1	0.4 DHM 1W 5% 2512 T/R	н 6*	
R174		604K OHM 0.125W 1% CHIP 1206	G 8*	
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*	
R176		10K 1/10W 1% CHIP 0805	G 8*	
R177		10K 1/10W 1% CHIP 0805	н в*	
R178		90.9K 0.10W 1% CHIP 0805	N 9*	
R179	A11368-10031		F 7*	
R180	A11368-39231	392K Ø.10W 1% CHIP Ø805	G 8*	
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*	
R182		10K 1/10W 1% CHIP 0805	F 8*	
R183		100K 0.1W 1% CHIP 0805	F 8*	
R184		20K 0.25W 1% CHIP 1210	F 9*	
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (218) 294-8888
DRAWN KLW 83-29-99 DWG. NO. SHEET 14 OF 21 RE KLW 03-29-99 DWG. NO. PROJ. MD390D0



	PARTS LIST				
REF DES	E. P. N.	DESCRIPTION	MAP LOC.		
R185		10K 1/10W 1% CHIP 0805	G 8*		
R186		100K 0.1W 1% CHIP 0805	N 10*		
R187		158K 0.10W 1% CHIP 0805	M 10*		
R188		158K 0.10W 1% CHIP 0805	N 10*		
R189		100K 0.1W 1% CHIP 0805	M 10*		
R190		57.6K 0.10W 1% CHIP 0805	N 6*		
R191		226 OHM 0.10W 1% CHIP 0805	N 6*		
R192		604K OHM 0.125W 1% CHIP 1206	L 9*		
R193	· ·	10K 1/10W 1% CHIP 0805	N 9*		
R194	A11371-8201	82 OHM Ø.10W 5% CHIP	M 7*		
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*		
R196		10K 1/10W 1% CHIP 0805	M 9*		
R197		6.19K 0.10W 1% CHIP 0805	M 10		
R198	/// <b>333</b> 3/3/ /	OPEN	M 10		
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N B*		
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1		
R201		1K 0.10W 1% CHIP 0805	K 10*		
R202	•	392K 0.10W 1% CHIP 0805	£ 9*		
R203	<del>}</del>	499 OHM 0.10W 1% CHIP 0805	L 9*		
R204	<del> </del>	10K 1/10W 1% CHIP 0805	L 9*		
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*		
R206		1K 0.10W 1% CHIP 0805	J 9*		
R209	<del> </del>	19.1K 0.125W 1% CHIP 1206	K 9*		
R210	<del></del>	1K 0.10W 1% CHIP 0805	J 9*		
R211	<del> </del>	10K 1/10W 1% CHIP 0805	J 9*		
R212		19.1K Ø.25W 1% MF	J 9		
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*		
R214		8.25K 0.1W 1% CHIP 0805	J 10*		
R215	+	68.1K 0.10W 1% CHIP	J 10*		
R216		226 DHM 0.10W 1% CHIP 0805	K 9*		
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 8*		
R218	<del></del>	10.2K 0.10W 1% CHIP 0805	K 10		
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J g*		
R220	A11368-90921	90.9K 0.10W 1% CHIP 0905	K 9*		
R221		10K 1/10W 1% CHIP 0805	K 10		
R222	_	158K 0.10W 1% CHIP 0805	K 9*		
R223		100K 0.1W 1% CHIP 0805	K 9*		
R224		158K 0.10W 1% CHIP 0805	K 9*		
R225		100K 0.1W 1% CHIP 0805	L 9*		
R226	A11368-49921		к в*		
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*		
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*		
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*		
R230		OPEN	L 7*		
R231		OPEN	L 7*		
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	н з*		
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н з*		
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MD390D0 PROJ.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888
DRAWN KLW 83-28-99 DWG. NO. SHEET 15 OF 21 RE 127354-2



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 DHM 0.25W 1% CHIP	K 8*
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*
R252	103199-1	0.4 DHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	к э*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	*E M
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R26Ø	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	н э*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276		10K 1/10W 1% CHIP 0805	E 8*
R277		10K 1/10W 1% CHIP 0805	E 8*
R278	<u> </u>	90.9K 0.10W 1% CHIP 0805	L 9*
R279		100K 0.1W 1% CHIP 0805	E 7*
R280		392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *
R282	<del> </del>	10K 1/10W 1% CHIP 0805	D 8*
R283	†	100K 0.1W 1% CHIP 0805	E 8*
R284		20K 0.25W 1% CHIP 1210	F 9*
			+ "
R285		10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*
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#### CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE 1219) 294-8888 DRAWN KLW 03-29-99 DWG. NO. SHEET 16 OF 21 RE

MD390D0 PROJ.



	PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.		
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 1Ø*		
R288		158K 0.10W 1% CHIP 0805	K 10*		
R289		100K 0.1W 1% CHIP 0805	K 10*		
R290		57.6K 0.10W 1% CHIP 0805	N 3*		
R291		226 OHM 0.10W 1% CHIP 0805	N 3*		
R292		604K OHM 0.125W 1% CHIP 1206	J 9*		
R293		10K 1/10W 1% CHIP 0805	к 9*		
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*		
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*		
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*		
R297		6.19K 0.10W 1% CHIP 0805	K 10		
R298		OPEN	K 10		
R299	A11371-ØRØ2	0.0 OHM JUMPER CHIP 1206	К В*		
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*		
R3Ø1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*		
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*		
R303	103199-1	0.4 DHM 1W 5% 2512 T/R	L 6*		
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*		
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*		
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*		
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*		
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*		
R309	103199-1	0.4 CHM 1W 5% 2512 T/R	G 6*		
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*		
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*		
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	16*		
R313	r	10K 1/10W 1% CHIP 0805	G 7*		
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*		
R315	A11368-51111	5.11K DHM 0,10W 1% CHIP 0805	н 7*		
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 18*		
R317	A11371-3934	39K CHM 0.50W 5% CHIP 1210	N B		
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8		
R319		OPEN	M 1Ø*		
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9		
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8		
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	р э*		
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*		
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	к э*		
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*		
R404	103199-1	0.4 DHM 1W 5% 2512 T/R	м э*		
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*		
R406	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*		
R407	103199-1	Ø.4 DHM 1W 5% 2512 T/R	E 4*		
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*		
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*		
R410	103199~1	0.4 OHM 1W 5% 2512 T/R	G 3*		
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*		
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517
DRAWN KLW Ø3-29-99 DWG. NO. MD3SØDØ

PROJ.

PHONE (219) 294~8008 SHEET 17 OF 21 RE



PARTS LIST				
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*	
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*	
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*	
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*	
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*	
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7	
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8	
R419		OPEN	K 10*	
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*	
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*	
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9	
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8	
R500		10K 1/10W 1% CHIP 0805	A 3	
R5Ø1		10K 1/10W 1% CHIP 0805	A 2	
R502	1	10K 1/10W 1% CHIP 0805	B 2	
R503		10K 1/10W 1% CHIP 0805	B 2	
R504		10K 1/10W 1% CHIP 0805	A 2	
R506		10K 1/10W 1% CHIP 0805	A 2	
R508	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OPEN	C 2	
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1	
R601		10K 1/10W 1% CHIP 0805	A 1	
R602		10K 1/10W 1% CHIP 0805	A 2	
R603		10K 1/10W 1% CHIP 0805	A 2	
R604		10K 1/10W 1% CHIP 0805	A 1	
R6Ø6		10K 1/10W 1% CHIP 0805	B 2	
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1	
R608		OPEN	C 1	
51	102488-1	SPDT HORIZ SLIDE	L 10	
52	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10	
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2	
TP38	C 9896-9	TEST POINT LOOP	K 1	
TP39	C 9896-9	TEST POINT LOOP	N 7	
U1	C 5095-2	POS. 15 VOLT REG.	H 10	
ш1 X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10	
U2	C 5096-0	NEG. 15 VOLT REG.	Н 9	
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	Н 9	
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10	
U4	C 8262-5	MC33078D DUAL LO NOISE OF AMP	1 9	
U5	C 8262-5	MC33078D DUAL LO NOISE OF AMP	N 9	
U100	102723-2	OPTO CELL ON-500 OHM	м 9	
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10	
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9	
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7	
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7	
U126	H42902-9	ASM, THERMAL SENSE	N 6	
U200	102723-2	OPTO CELL ON-500 OHM	K 9	
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10	
U2Ø2	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9	
U204	C 9038-8	COMPARATOR, QUAD LM339D 50-14	E 7	
	_ 5830 0	COM ANATON, COND EMBED DO 14		

For Reference Use Only

### CROWN INTERNATIONAL INC. TILL VVIN IN IEMNA I LUNAL INC. 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8666 DRAWN KLW 03-29-99 DWG. NO. SHEET 18 OF 21 RE-

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PROJ. MD390D0



		PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP	LOC.	
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7	
U206	H42902-9	ASM. THERMAL SENSE		N 3	
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP		A 2	
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM		A 10	
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T		A 9	
wP3		WIRE, 16 BLU FAST X 5 X TERM		A 9	
WP4	101031-1	.250 FASTON, AUTO INSERTABLE		D 7	
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4	
WP6	127442-1	PREP, CE HI-V WIRE		J 8	
WP7	101031-1	.250 FASTON, AUTO INSERTABLE		DB	
Z1		OPEN		E 9	
1	102138-9	PW8, CE1000/CE2000 MAIN/INPU	SEE	COMP	MAP
2	101016-1		SEE	COMP	MAP
	125242-1		SEE	COMP	MAP
	126825-1			COMP	
5	125482-1		_	COMP	
6	125483-1	-		COMP	
7	103180-1			COMP	
7	103180-1		_	COMP	
7	103180-1		SEE	COMP	MAP
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 48517 PHONE (219) 294-8008
DRAWN KLW 03-29-99 DWG. NO. SHEET 19 OF 21 REV

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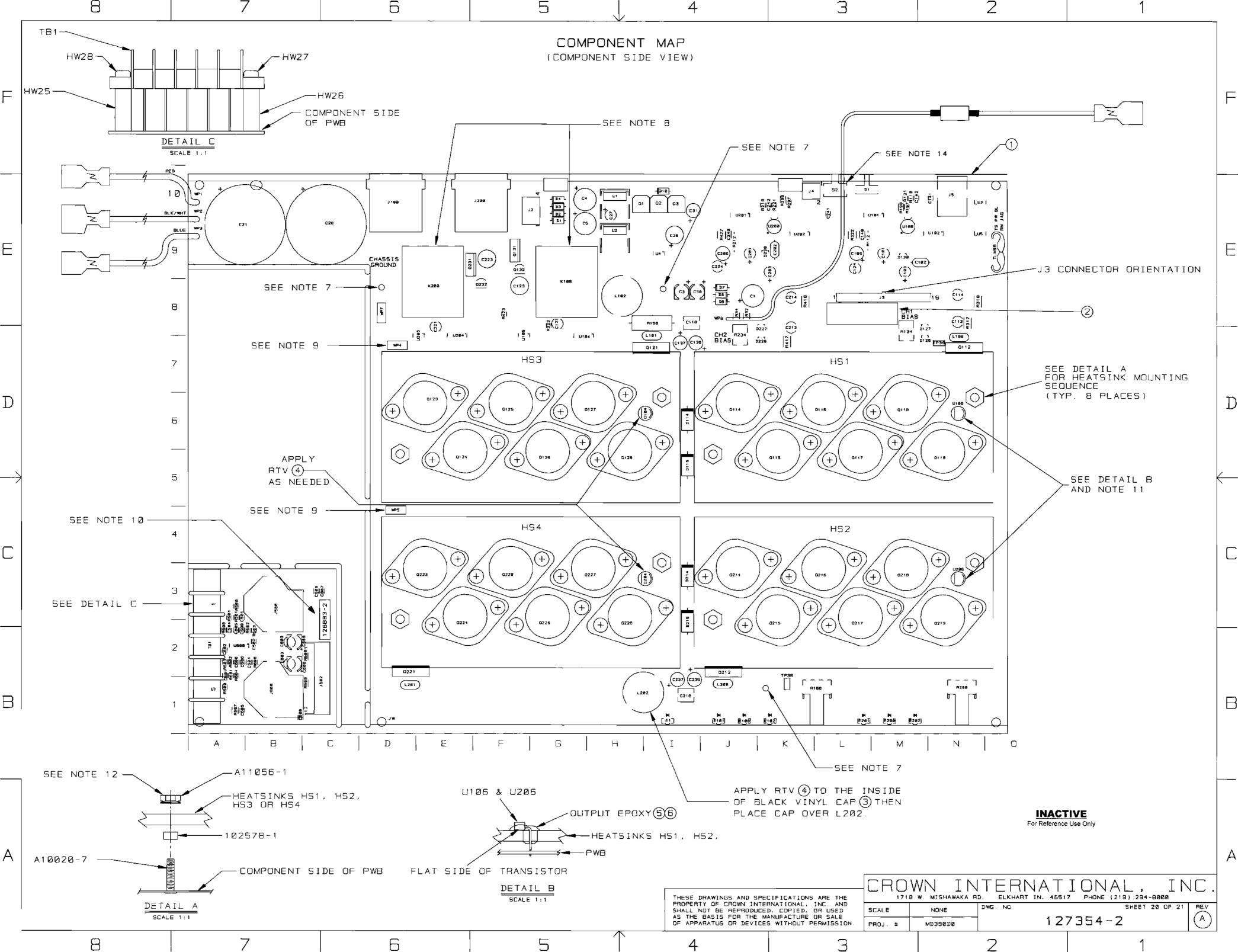
PROJ.

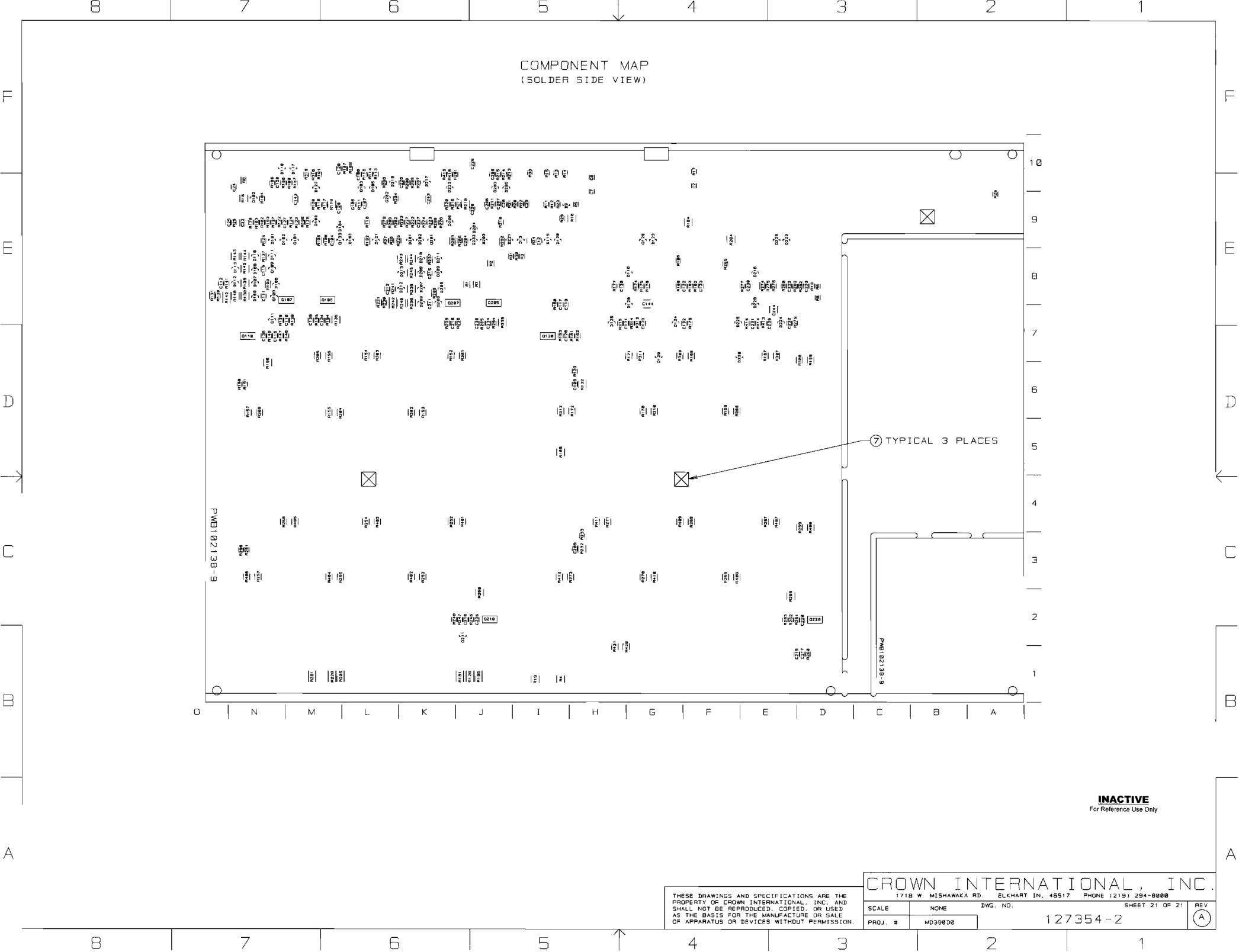




# **Component Map**

for use with Main PWA 127354-2





E.C.N.	ZONE	REV.	DESCRIPTION	DATE		CHK	PPRO CM	EE	PE	
T991752		A	INITIAL RELEASE FOR PRODUCTION.	09/10/99	ÐΚ	UN	12	V/A	X	ł
										1

#### NOTES:

- 1. SCHEMATIC DRAWING NUMBER 102142.
- 2. PWB PART NUMBER 102138-9.
- THE PWA SHALL MEET THE IPC-A-610. CLASS 2 STANDARDS.
- 4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
- 5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- 6. COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION
  ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- B. THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TODL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- 9. CONNECT THE WIRES THAT COME FROM 0123 AND 0223 TO WP4 AND WP5 RESPECTIVELY.
- 10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM. THE PWA NUMBER, 1268B3-4, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
- 11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
  - 118. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.

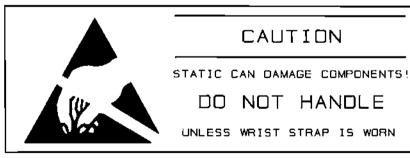
    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK.

    THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE

    LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD.

    (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR

    AND THE TRANSISTOR LEADS CANNOT TOUCH THE MEATSINK)
- 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
  - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
  - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
- 13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 14. INSTALL S2 REVERSED FROM SILK SCREENING.
- 15. HAND SOLDER C610 (C 6806-1). AND C611 (C 6806-1) ACHOSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (5 6295-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



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		ROW	1I N\	NTEF	RNAT	IONA	L INC	.
PRINTS TO	1718 WEST	MISHAWAK	DADR A	ELKHART.	INDIANA 46	517	PHONE (219) 294	-8666
K	PWA. MAIN/INPUT CE2000 TOL. UNLESS SPECIF  X. XX = ± 0.0  X. XX = ± 0.0  DRILLS = ± 0.0					.028		
	DRAWN	מא	09/10/99	APPRO	VED BY:	מא סע	T SCALE PRINT	
	CHECKED	ILM	9-10-99	ME N/A		SUPERSED	ES :	
	SCALE	N	ONE	EE NA		E.C.		
	PROJ #	MD3	39 <b>0</b> 00	PE W	9/13/99	DWG. NO.		REV
	FILENAME	:127354-	3AØ1 . PCB	NEXT AS	- <del>77</del> 5М:	127	354-3	$\bigcirc$

PARTS LIST							
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION				
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,				
			HW15, HW16				
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212				
A10266-2R74	2.7 OHM 2W 5% CF	1	R158				
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218				
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,				
<u> </u>			HW22, HW23, HW24				
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,				
			R210, R316, R416				
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9. R104. R107. R108. R111.				
			R121,R176,R177,R182,R185,				
			R193.R196.R204.R211.R221.				
-	<u> </u>		R276.R277,R282,R285,R293.				
			R296, R313, R413, R500, R501,				
			R502.R503.R504.R506.R600.				
·			R601, R602, R603, R604, R606				
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25.R30.R31.R123.R125.R179.				
			R183,R186,R189,R223,R225,				
	_		R279.R283.R286.R289				
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118, R218				
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239				
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21				
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122.R124.R187.R188,R222,				
			R224, R287, R288				
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109.R209				
A11368-20021	20K 0.1W 1% 0B05 T/R	1	R27				
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284				
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291				
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280				
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103.R203				
A11368-49902	499 OHM Ø.125W 1% CHIP	2	R137.R237				
A11368-49921	49.9K Ø.1W 1% CHIP Ø805	2	R126.R225				
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415				
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290				
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292				
A11368-61911	6.19K Ø.10W 1% CHIP 0805	2	R197, R297				
A11368-68121	68.1K Ø.1ØW 1% CHIP	Э	R12.R115.R215				
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5				
<u>A</u> 11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	2	R145, R245				
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18				
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17.B114.B214				
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278				
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6				
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2_	C134,C234				
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500.C501.C502.C600.C601.C602				
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207				
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242				
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110.C141.C210.C241				
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1719 WEST MISHAWAKA ROAD 09/10/99 DWG. NO. DΚ DRAWN MD390D0 PROJ.

ELKHART, INDIANA 48517 PHONE (219) 294-8000 DWG, NO. SHEET 2 OF 21 REV SHEET 2 OF 21 127354-3



	PARTS LIS	т	
C. P. N.	DESCRIPTION	<u>aty</u>	REFERENCE DESIGNATION
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-0R02	Ø.Ø OHM JUMPER CHIP 1206	4	R199, R299, R323, R423
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606.C607.C608.R160.R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148.R163,R248,R263
A11371-2223	2.2K Ø.25W 5% CHIP 1210	2	R132, R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K Ø.25W 5% CHIP 121Ø	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11,R26,R117.R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	Э	R16.R135.R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-47Ø1	47 OHM 0.10W 5% CHIP	2	R162, R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142.R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420. R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R120,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127.R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R2B,R133,R233
A1 1371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241.R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE. 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109.C111,C215,C209.C211,C215
A114 <u>2</u> 7-103K5	0.01MF 50V 5% X7R 1206	_ 2	C143, C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6.C7.C12.C24.C25.C28.C29.
			C122.C126.C127.C128.C129.
			C130,C131,C132,C133,C139,
			C222.C226.C227.C228.C229.
			C230,C231,C232, C233,C239,
			C505, C506, C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112.C212
A11427~272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7H 0805	4	C116,C119,C216,C219
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
<u>C</u> 3549-0	DIODE ZENER. 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4.C5
	_	_	

For Reference Use Only

INC. INTERNATIONAL CROWN 1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

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09/10/99 DWG. NO. DRAWN DΚ PROJ. MD390D0

PHONE (219) 294-8888 SHEET 3 OF 21 RE 127354-3



PARTS LIST					
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION		
C 5095-2	POS. 15 VOLT REG.	1	U1		
C 5096-0	NEG. 15 VOLT REG.	1	U2		
C 5362-6	2.2 MF 50V VERT	1	C27		
C 6802-0	.47 MF 50V AX CERM	2	C102, C202		
C 6806-1	.01 UF 100V AXIAL CER T/R	2	C610, C611		
C 7091-9	0.33 MF 50V CHIP 1206	Э	C22, C140, C240		
□ 7325-1	2P 2 POS. PC SLIDE SW.	1	S2		
C 7448-1	MMBT3904 CHIP NPN	6	0100,0101.0129.0200.0201.0229		
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4.U5.U105,U205		
C 8576-8	100 MF 35V 10% ELEC	1	C26		
C 9012-3	MC33079D QUAD LO NOISE OF AM	3	U101,U201,U500		
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204		
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223		
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204		
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9. D13. D101. D102. D103. D104.		
			D105, D106, D107, D108, D109,		
			D110.D111.D112.D113.D116.		
_			D117, D118, D119, D120, D121,		
		_	D122, D123, D124, D125, D126,		
			D127, D128, D129, D130, D201,		
			D202, D203, D204, D205, D206,		
,			D207, D208, D209, D210, D211,		
			D212.D213.D216.D217.D218.		
			D221, D222, D223, D224, D225,		
-			D226, D227, D228, D229, D230		
C 9896-9	TEST POINT LOOP	2	TP38. TP39		
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X		
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109,0111,0202,0209,0211		
C10196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224		
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205		
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215		
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234		
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21		
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE		
101016-1	LBL, BARCODE, , ,	1	2		
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7		
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J 4		
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2		
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5		
102138-9	PWB. CE1000/CE2000 MAIN/INPU	1	1		
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120, C135, C204, C220, C235		
102438-560K2	56PF 200V 10% NPO 0805	4	C106, C206, C504, C604		
102438-820K2	82PF 200V 10% NPO 0805	4	C108, C138, C208, C238		
102465-1	.47UF 50V 20% RADIAL T/R	2	C101.C201		
102466-1	10UF 250V 20% RADIAL T/R	1	C1		
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603		
102468-1	47UF 10V 20% NP RAD T/R	4	C113.C114,C213.C214		
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102, L202		
102471-2	HDR. 12POS 2.5MM RT ANG KEYE	1	J502		
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3		
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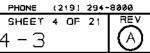
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ELKHART, INDIANA 46517 09/10/99 DWG. NO. DRAWN DK PROJ. MD390D0

1718 WEST MISHAWAKA ROAD

SHEET 4 OF 21 127354-3



	PARTS LIS	T	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200
102475-1	BLOCK, 5 POS TERMINAL	1	T81
102476-1	LED. SMT R/A GREEN	3	E1,E101,E201
102477~1	LED, SMT R/A RED	4	E100.E102.E200.E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	01, 02, 03
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133, Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103.Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102573-3	HS ASM, T2 ISOLATED CH1, , .	1	HS3
102574-3	HS ASM. T2 ISOLATED CH2 ,	1	H54
102575~3	HS ASM, T2 NON-ISOLATED CH1.	1	HS1
102576-3	HS ASM, T2 NON-ISOLATED CH2.	1	HS2
102578~1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1, HW2, HW3, HW4, HW5, HW6, HW7,
			HWB
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25, HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100.R200
102723-2	OPTO CELL ON-500 OHM	2	U100, U200
103180-1	BUMPER, Ø.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144, C244
103192-1	NPN 300V 500MA 50MHZ 50T-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103139-1	0.4 OHM 1W 5% 2512 T/R	54	R1, R7, R152, R153, R154, R155,
183133 1	0.1 0100 1 11 2312 1711	<del></del>	R156, R157, R159, R167, R168,
			R169,R170,R171,R172,R252.
		<u> </u>	R253.R254.R255.R256.R257.
		<u> </u>	R259, R267, R268, R269, R270,
		<u> </u>	R271,R272,R300,R301,R302,
			R303,R304.R305,R306,R307.
			R308.R309.R310.R311.R312.
		<del> </del>	R400, R401, R402, R403, R404.
			R405, R406, R407, R408, R409,
	-	<u> </u>	R410, R411, R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	Ø1 MF 100V 10% X7R Ø805 SMD	1	C2
103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	2	HW27.HW28
125106-1	MACOD B AMP 400V TRIAC	2	0131,0231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	ø	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	e e	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3, C3Ø
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	2	4
126825-1	1/4" TRS/XLR COMBO PCB VERT	2	J500, J600
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	<u> </u>	U106, U206
127003"1	DENSON, DE THERMAL	<del></del>	

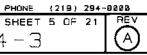
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517
DRAWN DK 89/10/99 DWG, NO. PROJ. MD390D0

SHEET 5 OF 21



		PARTS LIST	
_	C. P. N.	DESCRIPTION	MAP LOC.
<u> </u>	102466-1	10UF 250V 20% RADIAL T/R	J 8
<u> </u>	<del></del>	0.01 MF 100V 10% X7R 0805 SMD	F 9*
23	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
<u> </u>	<u> </u>	470 MF 35V VERT	
<u> </u>	C 4477-3	470 MF 35V VERT	G 9
C6		0.1 MF 50V 10% 0805	H 10*
<u> </u>	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	1 9*
C2 <b>0</b>	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C2 <b>4</b>	A11427-104K2	0.1 MF 50V 10% 0805	N 9 <u>*</u>
C25	A11427-104K2	0.1 MF 50V 10% 0805	0 9*
C26	C 8576-B	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I_10
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 6802-0	.47 MF 50V AX CEAM	м 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104	102438-101K2	100PF 200V 10% NPO 0805	м 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	Н 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427~103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	<del></del>	0.012 MF 50V 10% CHIP	D 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115		0.01 MF 50V 10% 0805	N 8*
C116		4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118	+	Ø.1 MF 250V 5% MTL POLY	I B
C119		4700PF 50V 10% X7R 0805	I 7*
C120	<del>-</del>	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	-	Ø.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	_	0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129		0.1 MF 50V 10% 0805	M 9*
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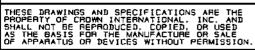
DK 09/10/99 DWG. NO. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

SHEET 6 OF 21

PHONE (219) 294-8000

REV



PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	Ø.1 MF 50V 10% 0805	н 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133		0.1 MF 50V 10% 0805	F 8*
C134		0.001UF 50V 5% NPO MLC 0805 T/	м 7*
C135		100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138		82PF 200V 10% NPO 0805	M 7*
C139		0.1 MF 50V 10% 0805	G 7*
C14Ø	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141		470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 10
C143		0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF ZSU 1210 20% 50V	G 7*
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C2Ø2	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C2Ø4		100PF 200V 10% NPO 0805	J 9*
C2Ø5		100 MF 25V 20% VERT ELEC	J S
C206		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	<u>, 3 3</u>
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C217	<del></del>	0.012 MF 50V 10% CHIP	L 8*
C212	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	<del>  .     .     .     .     .     .     .     .     .     .       .     .     .     .     .     .     .     .     .     .         .     .     .         .         .         .       .                 .         .         .         .         .         .         .         .         .         .         .         .           .         .         .           .         .         .           .         .           .           .           .           .           .           .           .           .           .                 .           .                       .  </del>	0.01 MF 50V 10% 0805	K 8*
C216	<del></del>	4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1*
C217		0.1 MF 250V 5% MTL POLY	I 1
C218		4700PF 50V 10% X7R 0805	E 1*
C220		100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222		0.1 MF 50V 10% 0805	€ 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1		
		2.2MF 50V 20% RAD T/R	J 9 K 10*
C226		0.1 MF 50V 10% 0805	
C227		0.1 MF 50V 10% 0805 0.1 MF 50V 10% 0805	K 9*
C228	-		J 10*
C229	A11427-104K2		J 9*
C230		0.1 MF 50V 10% 0805	E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232	<del>}</del>	0.1 MF 50V 10% 0805	E 7*
C233	A1142/-104K2	0.1 MF 50V 10% 0805	D 8*
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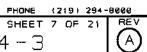
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1718 WEST MISHAWAKA ROAD ELKHART. INDIANA 46517 DK 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 7 OF 21



PARTS LIST			
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C234	A11369-102JZ	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	B2PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5Ø2	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C5Ø4	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C5Ø9		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	8 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	С 3
C608	A11371~1501	15 OHM .1W 5% 0805 T/R	8 1
C609		OPEN	8 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
<u>C611</u>	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
рз	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	JB
D7	C 2851-1	1N4004 SILICON RECT.	7 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N B*
D108	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	N B*
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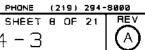
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1718 WEST	MISHAWA	KA ROAD E	LKHAR1	I, IN	ANAIG	46517	
DRAWN	DK	09/10/99	DWG.	NO.			
P80.1	MD	39000	l		12	73	54

SHEET 8 OF 21 DWG. NO. 127354-3



REF DES	C.P.N.	DESCRIPTION PARTS LIST	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	□ 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 8*
0112	C 9283-0	DIODE, 1N914/1N4148 SDT-23 SMT	N B*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
0114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	N 10*
D119	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N314/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м в
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D13Ø	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	К В*
D207	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	К В*
D210	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C1Ø422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	E 8*
D217	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	L 10*
D221	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-Ø	DIODE, 1N914/1N414B SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D2 <b>26</b>	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K B
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1718 WEST	MISHAWA	KA ROAD E	٤L
DRAWN	DK	09/10/99	ľ
PROJ.	MD	390D0	l

ELKHART, INDIANA 46517 PHONE (219) 294-8088

DWG, NO. SHEET 9 OF 21 RE 127354-3



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D23Ø	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E 1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED. SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1	G 6
H\$4	102574-3	HS ASM, T2 ISOLATED CH2	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER. 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANDDIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW1 3	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N B
HW1 5	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW1.9	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056~1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW2B	<del></del>	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	М В
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	<del>                                     </del>
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
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#### CROWN INTERNATIONAL INC. 1718 WEST MISHAWAKA ROAD

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09/10/99 DWG. NO. DRAWN DΚ PROJ. MD390D0

ELKHART, INDIANA 46517 PHONE (219) 294-8888 DWG, NO. SHEET 10 OF 21 FE 127354-3



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	8 3
J502	102471-2	HDR. 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	8 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510+2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	Н 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Ω1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
<b>a</b> 2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
аз	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
0100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1	MMBT3904 CHIP NPN	M 9*
0102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
0103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	1 6
0105	103193-1	PNP 300V 500MA 50MHZ 50T-223	M 7*
0107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
0128	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q1 09	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
0110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
0112	103200-1	NPN 230V 15A 30MHZ 25C5242	N 7
<u> </u>	100200 1	14 14 2364 1371 38WHZ 23C3212	<del>-''                                   </del>
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		· ·	
Q120	103193-1	PNP 300V 500MA 50MHZ 50T-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
Q1Z1	183286 1	THE TOTAL SERVICE 23C3242	
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			·
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
0131	125106-1		F 9
		MACSD 8 AMP 400V TRIAC	
0132	102478-1	TRIAC DRIVER SBS BV THRESH	F 9
0133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
0200	C 7448-1	MMBT3904 CHIP NPN	K 9*
0201	C 7448-1	MMBT3904 CHIP NPN	K 9*
0202	C 9931~4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9 <u>*</u>
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# CROWN INTERNATIONAL INC. EST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8800

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 1718 WEST MISHAWAKA ROAD
 ELKHART, INDIANA 46517

 DRAWN
 DK
 Ø9/10/99
 DWG. NO.

 PROJ.
 MD390DØ
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SHEET 11 OF 21 127354-3



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#### INC. CROWN INTERNATIONAL

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8888 DRAWN DK Ø9/10/99 DWG, NO. SHEET 12 OF 21 RE 09/10/99 DWG, NO. DRAWN PROJ. мрээрро



		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29	<u> </u>	OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31		100K 0.1W 1% CHIP 0805	 J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-R221	0.22 DHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J B
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101		1K 0.10W 1% CHIP 0805	M 10*
R102	<del></del>	392K 0.10W 1% CHIP 0805	N 9*
R103	<del> </del>	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6914	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011		M 9*
R107		10K 1/10W 1% CHIP 0805	L 10*
R108		10K 1/10W 1% CHIP 0805	L 10*
R109		19.1K 0.125W 1% CHIP 1206	M 9*
R110		1K 0.10W 1% CHIP 0805	L 9*
R111	<del> </del>		L 9*
R112		10K 1/10W 1% CHIP 0805 19.1K 0.25W 1% MF	L 9
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K 0.1W 1% CHIP 0805	L 10*
R115		68.1K Ø.1ØW 1% CHIP	L 10*
R116	<del> </del>	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118		10.2K 0.10W 1% CHIP 0805	M 10
			M 9*
R119	A11371-3333	33K 0.25W 5% CHIP 1210	
R120		90.9K 0.10W 1% CHIP 0805	M 9*
R121	<del></del>	10K 1/10W 1% CHIP 0805	M 10
R122		158K 0.10W 1% CHIP 0805	N 9*
R123	· · · · · · · · · · · · · · · · · · ·	100K 0.1W 1% CHIP 0805	
R124		158K 0.10W 1% CHIP 0805	M 9*
R125		100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	B20 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0.8*
R131		OPEN STATE OF THE	0 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	<u>H 6*</u>
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000 DK 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

SHEET 13 OF 21



PARTS LIST				
REF DES	C.P.N.	DESCRIPTION	MAP LOC.	
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*	
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7	
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*	
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*	
R137	A11368-49902	499 OHM Ø.125W 1% CHIP	N 8*	
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*	
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N B*	
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0 8*	
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0 8*	
R143	A11371-3333	33K Ø.25W 5% CHIP 121Ø	N 8*	
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*	
R145	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	N 8*	
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*	
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*	
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*	
R15Ø	A11371-5R63	5.6 0.25W 5% CHIP	N 5*	
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*	
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*	
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*	
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*	
R156	103199-1	Ø.4 OHM 1W 5% 2512 T/R	м 6*	
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*	
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8	
R159	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*	
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*	
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*	
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*	
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*	
R165	A11371~5R63	5.6 0.25W 5% CHIP	I 5*	
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*	
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*	
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*	
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
F171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*	
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	н 6*	
R174	-	804K OHM 0.125W 1% CHIP 1206	G 8*	
R175	<del></del>	5.11K OHM 0.10W 1% CHIP 0805	G 8*	
R176		10K 1/10W 1% CHIP 0805	G 8*	
R177	A11368-10021		H 8*	
R178	A11368-90921		N 9*	
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*	
R180	A11368-39231		G 8*	
R181	A11371~6814	680 OHM 0.50W 5% CHIP	J 1*	
R182	<del> </del>	10K 1/10W 1% CHIP 0805	F 8*	
R183	<del>†                                      </del>	100K 0.1W 1% CHIP 0805	F 8*	
F184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*	
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000
DRAWN DK 09/10/99 DWG. NO. SHEET 14 OF 21 REV 09/10/99 DWG. NO. DRAWN DΚ PROJ. MD390D0



		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K Ø.10W 1% CHIP Ø805	M 10*
R188	A11368-15831	15BK 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 DHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1
R2 <b>0</b> 1	A11368-10011	1K 0.10W 1% CHIP 0805	K 12#
R202		392K Ø.10W 1% CHIP Ø8Ø5	L 9*
R2Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
F12014		10K 1/10W 1% CHIP 0805	L 9*
R2 <b>0</b> 5	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206		1K 0.10W 1% CHIP 0805	J 9*
R209		19.1K 0.125W 1% CHIP 1206	K 9*
R210		1K 0.10W 1% CHIP 0805	J 9*
R211		10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K Ø.25W 1% MF	J 9
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K Ø.1W 1% CHIP ØBØ5	J 1@*
R215		68.1K 0.10W 1% CHIP	J 10*
R216		226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	
R21B	A11368-10221		K 10
R219	A11371-3333	33K Ø.25W 5% CHIP 121Ø	
R22Ø		90.9K 0.10W 1% CHIP 0805	K 9*
R221	· · · · · · · · · · · · · · · · · · ·	10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K Ø.10W 1% CHIP Ø8Ø5	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921		K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230	1	OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	— <u>Г / ^ </u> _
R233	A11371-2223	750 OHM 0.10W 5% CHIP	Н 3*
11233	ATT3/1-/311	7.36 CHINE B. IBW 3/2 CHIF	
	<del></del>		

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# CROWN INTERNATIONAL INC.

LD S DRAWN

PROJ.

DK 09/10/99 DWG. NO. MD390D0

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517

SHEET 15 OF 21

PHONE (219) 294-8000

REV

1273<u>54-3</u>

REF DES	Ç. P. N.	PARTS LIST DESCRIPTION	MAP LOC.
R234	C1Ø613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K Ø.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902		K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239		107 OHM 0 25W 1% CHIP	к в*
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03		K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 Ø.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	К 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4 *
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	Н 3*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276		10K 1/10W 1% CHIP 0805	E B*
R277		10K 1/10W 1% CHIP 0805	E 8*
R278		90.9K 0.10W 1% CHIP 0805	L 9*
R279		100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-78831	392K 0.10W 1% CHIP 0805	E 8*
R281	A11368-39231	680 OHM 0.50W 5% CHIP	M 1 *
R282		10K 1/10W 1% CHIP 0805	D 8*
R283		100K 0.1W 1% CHIP 0805	E 8*
R284			F 9*
	· ·	20K 0.25W 1% CHIP 1210	F 8*
R285 R286	A11368-10021		<del></del>
n200		100K 0.1W 1% CHIP 0805	L 10*
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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8808 DRAWN DK 09/10/99 DWG, NO. SHEET 16 OF 21 RE DK 09/10/99 DWG. NO. DRAWN PROJ. MD390D0



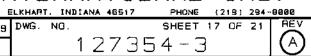
REF DES	C. P. N.	PARTS LIST DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368~57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432		J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R298	ATTOOL BILLT	OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	X 5*
	103199-1	0.4 OHM 1W 5% 2512 T/R	
R303			L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*_
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	<u> </u>
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	<u> 1 6*</u>
R313	<del>-</del>	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N B
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R31 <u>9</u>		OPEN	M 101*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L <u>9</u>
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	68
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R4Ø1	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	К Э*
R403	103199~1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	*E M
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	*E N
<u>R</u> 407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*

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09/10/99 DWG. NO. DRAWN DK PROJ. MD390D0



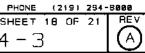
	PARTS LIST	
C.P.N.	DESCRIPTION	MAP LOC.
103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
A11371-3934	39K OHM 0.50W 5% CHIP 1210	к 8
	OPEN	K 10*
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
A11371-1013		J 9
A11371-ØRØ2		F 8
		А З
	-	A 2
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+		A 2
		A 2
7111330 10021		C 2
A11368-10021		A 1
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A11371 0203		<u> </u>
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		M 10
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C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
127683-1	SENSOR, CE THERMAL	N 6
1	OPTO CELL ON*500 OHM	K 9
102723-2		
102/23-2 C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
	MC33079D QUAD LO NOISE OF AMP COMPARATOR, QUAD LM339D SO-14	J 10 K 9
	103199-1 A11368-10021 A11371-3341 A11368-10011 A11371-3934 A11371-3934 A11371-5R65 A11371-5R65 A11371-5R65 A11371-0R02 A11368-10021	C. P. N.   DESCRIPTION   D. 4 OHM 1W 5% 2512 T/R

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#### CROWN INTERNATIONAL INC.

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 45517 09/10/99 DWG. NO. DRAWN DK PROJ. мрээфрф

SHEET 18 OF 21 127354-3



		PARTS LIST		
REF DES	C. P. N.	DESCRIPTION	MAP LOC.	
U2Ø5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7	
U206	127683-1	SENSOR, CE THERMAL	И 3	
Ú500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2	
WP1		WIRE, 16 RED FAST X 5 X TERM	A 10	
WP2		WIRE, 16 BLK/WHT TAB X 5 X T	A 9	
WP3		WIRE. 16 BLU FAST X 5 X TERM	A 9	
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7	
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4	
WP6	127442-1	PREP, CE HI-V WIRE	J 8	
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D B	
Z1		OPEN	E 9	
1	102138-9		SEE COMP 1	мар
2	101016-1		SEE COMP 1	-
3	125242-1		SEE COMP (	
4	126825-1		SEE COMP	
5	125482-1		SEE COMP I	_
6	125483-1		SEE COMP I	-
7	103180-1		SEE COMP I	
7	103180-1		SEE COMP I	
7	103180-1		SEE COMP I	-
TAPE	5 6285-1		SEE COMP I	
	3 0200 1	(70 Z) NO FOR THE SET IMAGE, THE	<u> </u>	
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### INC. CROWN INTERNATIONAL

1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46617

PHONE (219) 294-8000

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DK 09/10/99 DWG. NO. DRAWN PROJ. MD390D0

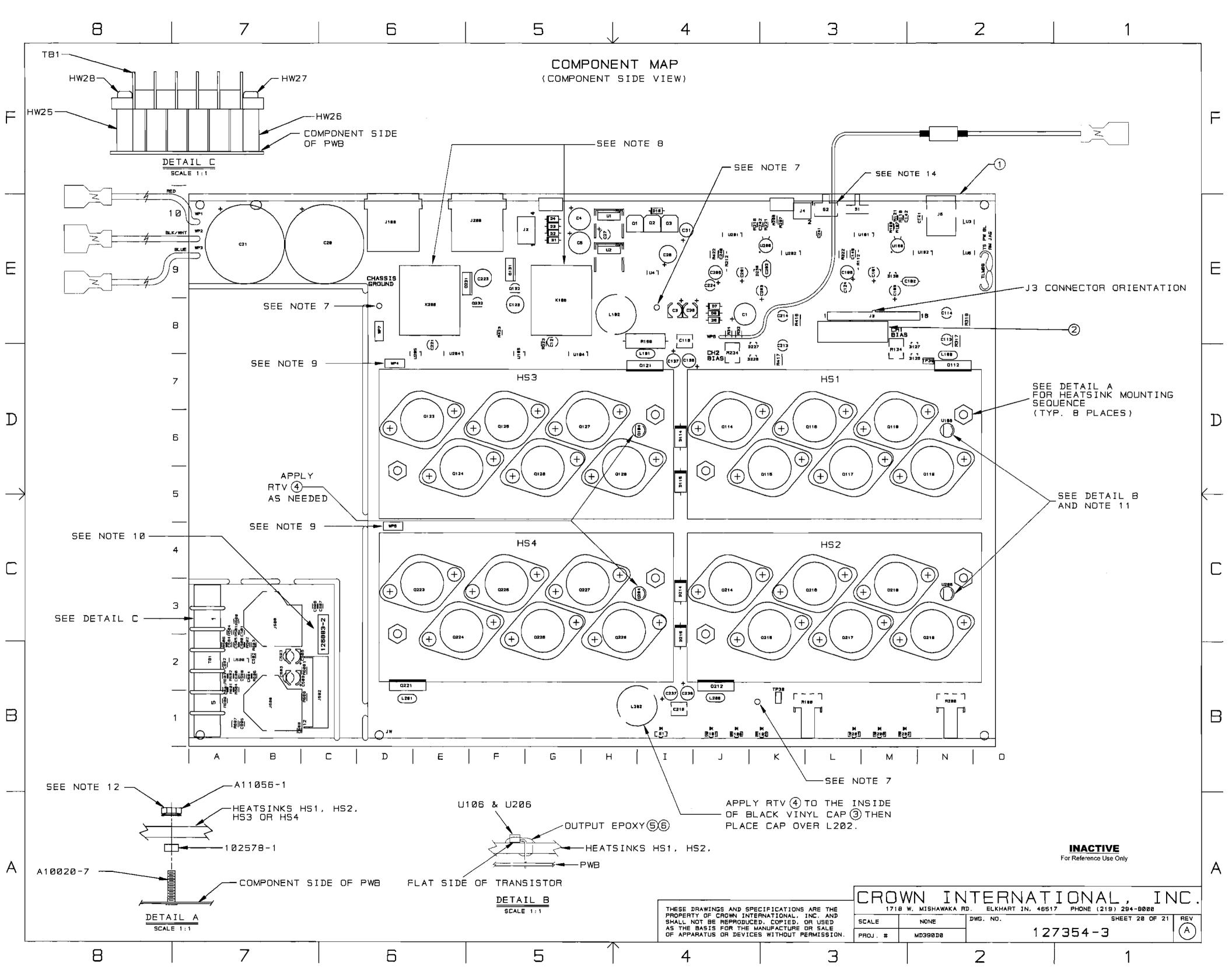
SHEET 19 OF 21 127354-3

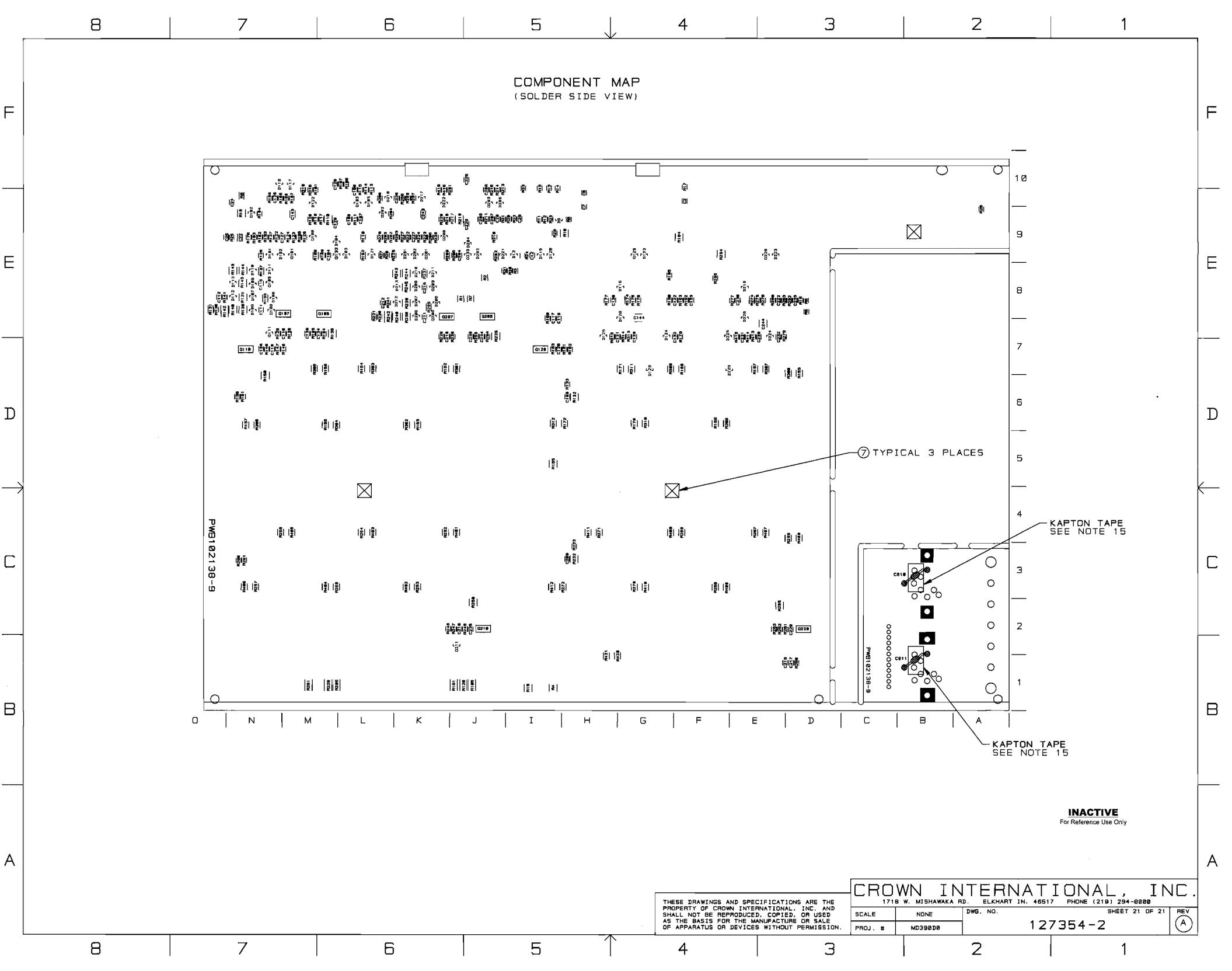




# **Component Map**

for use with Main PWA 127354-3





	REVISION HISTORY									
E.C.N.	E.C.N. REV DESCRIPTION DATE DWN CM DWN CM									
		DW								
	Α	INITIAL RELEASE DERIVED FROM 127451-2 REV C NUMEROUS CHANGES	01-03-02	РJ	MG	PJ				

#### NOTES:

- PRINTED WIRING BOARD PART NUMBER 127450-1.
- THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS. 7.
- Э.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- B REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES
- THE VENT HOLE ON TOP OF THE RELAYS KIDD AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS. BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY
- 9. THE PWA PART NUMBER FOR THE MAIN MODULE SHALL BE MARKED ON THE TOP SIDE OF THE PRINTED WIRING BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-4, SHALL BE MARKED ON THE BOTTOM SIDE OF THE PRINTED WIRING BOARD FOR THE INPUT MODULE. SEE COMPONENT MAP FOR LOCATIONS.
- 10. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
  - 11A, BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
  - 118. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11C. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE. ESPECIALLY THE CENTER LEAD (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
- 11D. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
- 11. TORQUE 6-32 HEX NUTS (CPN 132491-1) AS FOLLOWS:
  - 12A, PRE-WAVE TOROUE OF 11-13 INCH LBS.
  - 128. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 11-13 INCH LBS
- 12. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 13. NO LABELS OR MARKINGS ALLOWED IN AREA INDICATED
- 14. INSTALL SHUNT OVER ONE PIN ONLY OF 2100 AND 2200.
- 15. HAND SOLDER C610 (C 6806-1). AND C611 (C 6806-1) ACHOSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD



### CALITION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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K		CM	MMG	1/23/02	1718 W. MISHAWAKA AD. ELKHART IN. 46517 PHONE (219) 294 - 8000
FILENAME		PE	ЬJ	01/03/02	INTERNATIONAL, INC. www.crownintl.com
127451-4_A_01	.PCB				TITLE
					PWA. MAIN/INPUT CE1000
TOLERANCE UNL					
OTHERWISE SPEC					
.00 - ±.0:	_				SIZE DWG NO. PEV
DRILLS + ±.0					127451-4 A
DO NOT SCALE DRA	AWING	·	·		SCALE NONE PROJ NO. MD390D0 SHEET 1 OF 23

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112.R212
A10266-2874	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
ATTOO TEETT	1		R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	31	R9,R104,R107,R108,R111,R121,
			R176,R177,R182,R185,R193,
			R196,R204,R211,R221,R276,
			R277,R282,R285,R293,R296,
			R313,R413,R500,R501,R502,
			R503,R600,R601,R602,R603,
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
			R183.R186.R189.R223.R225.
			R279,R283,R286,R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139.R239
A11368-15831	158K Ø.10W 1% CHIP Ø8Ø5	В	R122,R124,R187,R188,R222,
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109.R209
A11368-20011	2K 0.10W 1% CHIP 0805	4	R504,R506,R604,R606
A11368-20021	20K 0.10W 1% CHIP 0805	3	R27.R151.R251
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10.R184.R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116.R191.R216.R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22.R23.R102.R180.R202.R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103.R203
A11368-49902	499 OHM 0.125W 1% 1206 T/R	2	R137.R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126.R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113.R175.R197.R213.R275.
			R297.R315.R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20.R24.R190.R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	6	R149.R174.R192.R249.R274.
			R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118.R218
A11368-68121	68.1K Ø.1ØW 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107.C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142.C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110,C141,C210,C241
A11371-0R01	0 OHM 0.1W CHIP 0805	4	R199,R299,R323,R423

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SIZE A	DWG	NO.	127451-4	

SCALE NONE PROJ NO. MD390D0 SHEET 2 OF 23

REV A

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	OTY	REFERENCE DESIGNATION
A11371-R221	0.22 OHM 0.10W 5% CHIP 0905	3	R14.R15.R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13.R147,R247
A11371-1013	100 OHM . 25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	ω	R138.R144.R145.R238.R244.R245
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	Б	R160.R260.R605.R609.R610
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148.R163.R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132.R232
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K 0.25W 5% CHIP 1210	ω	R119.R140.R143.R219.R240.R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3.R11.R26.R117.R217.R314.
			R414
A11371-3923	3.9K 0.25W 5% CHIP	Э	R16.R135.R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162.R262
A11371-5863	5.6 0.25W 5% CHIP	4	R150.R165.R250.R265
A11371-5865	5.6 OHM 1W 5% CHIP 2512	2	R420.R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105.R128.R181.R205.R228.R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127.R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	ω	C109.C111.C115.C209.C211.C215
A11427-103K5	Ø.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6.C7.C12.C24.C25.C28.C29.
			C122,C126,C127,C128,C129,
			C130,C131,C132,C133,C139,
			C222, C226, C227, C228, C229,
			C230,C231,C232,C233,C239,
			C505, C506, C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	E112.E212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117.C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116.C119.C216.C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	wP6
C 2851-1	1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENEA, 10V. 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5
C 5095-2	POS. 15 VOLT REG.	1	<b>U</b> 1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6419-3	SHUNT, .025" SQ POST 2 POS	2	Z100X,Z200X SEE NOTE 15
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	0.01 MF 100V AXIAL CER T/R	2	C610, C611

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	SIZE A	DWG	NO.	127451-4	
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SCALE NONE

PROJ NO. MD390D0 SHEET 3 OF 23

REV A

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	ΩTY	REFERENCE DESIGNATION
C 7091-9	0.33 MF 50V CHIP 1206	3	C22.C140.C240
C 7325-1	2P 2 POS. PC SLIDE SW.	2	S1.S2
<u>C 7448-1</u>	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	∐4.U5.U1@5.U2@5
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	⊔101.U201.U500
C 9038-8	COMPARATOR. QUAD LM339D SO-1	4	⊔102.U104.U202.U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123.C223
C 9202-0	2 PIN SGL ROW VERT GOLD HDR	2	Z100.Z200
C 9252-5	2N3904 40V NPN TRANSISTOR	2	0104.0204
C 9283-0	DIODE. 1N914/1N4148 SOT-23 S	56	D9.D13.D101.D102.D103.D104.
			D105.D106.D107.D108.D109.
			D110.D111.D112.D113.D116.
			D117.D118.D119.D120.D121.
			D122.D123.D124.D125.D126.
			D127.D128.D129.D130.D201.
			D202, D203, D204, D205, D206,
			D207.D208.D209.D210.D211.
			D212.D213.D216.D217.D218.
			D221, D222, D223, D224, D225,
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X.U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109,0111,0202,0209,0211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20, C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
<u> 1<b>01</b>573-1</u>	HDR 4 POS .1 CTR MTA SHRD	1	<u>J</u> 2
101993-1	JACK, 6P4 COND MODULAR R/A	111	J5
102438-101K2	100PF 200V 10% NPO 0805	6	C104.C120.C135,C204.C220.C235
102438-221K2	220PF 200V 10% NPO 0805		<u>C504, C604</u>
102438-560K2	56PF 200V 10% NPO 0805	2	C106,C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108.C138.C208.C238
102465- <b>1</b>	.47UF 50V 20% RADIAL T/R		C101,C201
102466-1	10UF 250V 20% RADIAL T/R	11	C1
102467-1	22MF 25V 20% RAD T/R	4	C103.C203.C503,C603
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR. 12POS .1 CTR SGL ROW	11	J502
102472-3	CONN, 12POS .1 CTR SGL ROW	11	13
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100.J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
	<u> </u>		

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SIZE	DWG	NO.	
Α			127451-4

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REV A

SCALE NONE PROJ NO. MD390D0 SHEET

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	ΩTY	REFERENCE DESIGNATION
102478-1	TRIAC DRIVER SBS BV THRESH	2	0132.0232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1.Q2.Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108.Q208
102483-1	PNP 300V 500MA 50T-23	2	Q103.Q203
102486-1	OPTO 8JT NPN SOIC-8 CTR =100	1	ПЗ
102570-3	HS ASM. T1 ISOLATED CH2. , ,	1	HS4
102572-3	HS ASM. T1 NON-ISOLATED CH2.	1	HS2
102579-1	STAND. 1/4 RD SWAGE AL	2	HW25.HW26
102595-3	POT. 5K LIN 21 DNT 12MM HORI	2	R100.R200
102608-1	SPACER. 6X.187 LONG ALUMINUM	8	HW1.HW2.HW3.HW4.HW5.HW6.HW7.
			HW8
102723-2	OPTO CELL ON=500 OHM	2	U100.U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	4	C100.C144.C200.C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107.Q110.Q207.Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	0105.0120.0205.0220
103199-1	0.4 OHM 1W 5% 2512 T/R	36	R152,R153,R156,R157,
			R159,R167,R168,R171,R172,
			R252,R253,R256,R257,R259,
			R267,R268,R271,R272,R300,
			R301,R302,R305,R306,R307,
			R308,R311,R312,R400,R401,
			R402,R405,R406,R407,R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MACSD 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
<u> 125478-1</u>	3.83KOHM 0.50W 1% 2010 T/R		R142.R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	Ø	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
1255 <b>0</b> 8- <b>1</b>	10UF 50VDC ELECTROLYTIC SMD		<u>C3, C30</u>
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 30Z SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT		1500,1600
127229-1	RES. 1100 OHM 5W 5% THICK FI	11	R1
127230-1	RES, 2200 OHM 3W 5% THICK FI	1	R2
127299-1	47UF 6.3V 20% NP ALUM ELECT	4	C113,C114,C213,C214
127450-1	PWB. CE1000/CE2000 MAIN/INPU	1	1
127683-1	SENSER. CE THERMAL	2	U106.U206
132491-1	NUT. 6-32 HEX NYLON LOCK	8	HW17,HW18,HW19,HW20,HW21,
122505	UC 4634 CE14600 1000 1755 000		HW22.HW23.HW24
133695-1	HS ASM, CE1000 ISOLATED CH1	1	HS3
133696-1	HS ASM, CE1000 NON-ISOLATED	1	HS1

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A	DWG NO.	127451-4		A A
SCAL	E NONE	PROJ NO. MD390D0 SHEET 5 (	OF 23	

DEE DEC		PARTS LIST	TMAR LOC
REF DES	i	DESCRIPTION	MAP LOC.
<u>C1</u>	102466-1	10UF 250V 20% RADIAL T/R	J 8
<u>C2</u>	1	0.01 MF 100V 10% X7R 0805 SMD	F 9*
<u>C3</u>	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
<u>C4</u>	C 4477-3	470 MF 35V VERT	G 10
<u>C5</u>	□ 4477-3	470 MF 35V VERT	G 9
<u>C6</u>		0.1 MF 50V 10% 0805	H 10*
<u>C7</u>	;	0.1 MF 50V 10% 0805	H 9*
C1 2	1	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24		0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	1 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		0.1 MF 50V 10% 0805	J 9*
C29		0.1 MF 50V 10% 0805	I 9*
C3Ø	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C100	103191-1	0.47UF Z5U 1210 20% 50V	N 9*
C101	102465-1	.47UF 50V 20% RADIAL T/R	м 9
C102	C 68 <b>0</b> 2- <b>0</b>	.47 MF 50V AX CERM	м 9
C10/3	102467-1	22MF 25V 20% RAD T/R	М 9
C104	102438-101K2	100PF 200V 10% NPO 0805	м 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	0 8*
C113	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C114	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C115	A11427-103K2	0.01 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117		2700PF 50V 10% CHIP 0805	I 7*
C118	<del>                                     </del>	0.1 MF 250V 5% MTL POLY	I 8
C119		4700PF 50V 10% X7R 0805	I 7*
C120	i	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122		0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C12196-1	2.2MF 50V 20% RAD T/R	L 9
C126		0.1 MF 50V 10% 0805	N 10*
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129		0.1 MF 50V 10% 0805	M 9*
		D .	. IVI J

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SIZE A	DWG	NO.	127	7 4	51-4				A A
SCAL	E N	ONE	PROJ	NO.	MD390D0	SHEET	6 0	F 23	

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	н 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	м 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	м 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	Ø.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142		33PF 50V 5% NPO MLC 0805	M 12
C143	}	Ø. Ø1MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C200	103191-1	Ø.47UF Z5U 1210 20% 50V	K 9*
C2Ø1	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C2Ø2	C 6802-0	.47 MF 50V AX CERM	к 9
C2Ø3		22MF 25V 20% RAD T/R	К 9
C2Ø4	<del> </del>	100PF 200V 10% NPO 0805	J 9*
C205		100 MF 25V 20% VERT ELEC	J 9
C2Ø6		56PF 200V 10% NPO 0805	J 9*
C2Ø7		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C209		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L 8*
C213	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	K 8
C214	i	47UF 6.3V 20% NP ALUM ELECT SMT T/R	K 8
C215		0.01 MF 50V 10% 0805	K 8*
		4700PF 50V 10% X7R 0805	J 2*
C216			
C217		2700PF 50V 10% CHIP 0805	D 1 *
C218		0.1 MF 250V 5% MTL POLY 4700PF 50V 10% X7R 0805	I 1
C219			
C220		100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	i	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226		0.1 MF 50V 10% 0805	K 10*
C227	1	0.1 MF 50V 10% 0805	K 9*
C228	<del> </del>	0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C230		0.1 MF 50V 10% 0805	E 8*
C231		0.1 MF 50V 10% 0805	E 7*
C232		0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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SIZE	DWG	NO.			
Α			1	27451	<b>- 4</b>

SCALE NONE PROJ NO. MD390D0 SHEET 7 OF 23

	T =	PARTS LIST	T
	C.P.N.	DESCRIPTION	MAP LOC.
C234	<del>}</del>	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	†	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	<del>-</del>	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C24Ø	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	Ø.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C5Ø1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C5Ø3	102467-1	22MF 25V 20% RAD T/R	B 2
C5Ø4	102438-221K2	220PF 200V 10% NPO 0805	A 2
C5Ø5	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C5Ø6	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C5 <b>0</b> 9		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
<b>C60</b> 1	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C6 <b>Ø</b> 3	102467-1	22MF 25V 20% RAD T/R	B 2
C6 <b>0</b> 4	102438-221K2	220PF 200V 10% NPO 0805	B 2
C6Ø5	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C6Ø9		OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	В 3
C611	C 68Ø6-1	0.01 UF 100V AXIAL CER T/R	B 1
<b>D</b> 1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
DЗ	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
DB	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D1Ø1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D 1 D C	2 2203 8	DIGDE, HIGHTY HITTITO GOT ZO SWIT	14 0

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A	DWG NO.	127451-4		
SCAL	E NONE	PROJ NO. MD390D0	SHEET	8 OF 23

DEE DEC	C B N	PARTS LIST	MAR LOS
REF DES		DESCRIPTION DIODE INCLA (INALAR SOL-33 SMT	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D1 1 1	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	м 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D2Ø1	C 9283-0	DIODE: 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D2Ø3	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D2Ø4	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D2Ø6	C 92 <b>83-0</b>	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D2Ø7	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 7*
D2Ø9	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	к 8
			l

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size A	DWG	NO.	1274	51-4			A A
SCAL	E N	ONE	PROJ NO.	MD390D0	SHEET	9 OF 23	

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К 9
E 1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E1Ø1	102476-1	LED, SMT R/A GREEN	J 1
E1Ø2	102477-1	LED. SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	М 1
E2Ø1	102476-1	LED, SMT R/A GREEN	L 1
E2Ø2	102477-1	LED, SMT R/A RED	M 1
H1 1		OPEN	K 1
H1 4		OPEN	I 8
H18		GPEN	D 8
HS1	133696-1	HS ASM, CE1000 NON-ISOLATED CH1	
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2.	
H53	133695-1	HS ASM, CE1000 ISOLATED CH1	
HS 4	102570-3	HS ASM. T1 ISOLATED CH2	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	+	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 Ø	A10020-7	6-32 X .625 PCB CAPTIVE STUD	1 6
	A10020-7		
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW1 2	A10020-7	6-32 X .625 PCB CAPTIVE STUD	_
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J S
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW1 7	132491-1	NUT. 6-32 HEX NYLON LOCK	A 4
HW18	132491-1	NUT. 6-32 HEX NYLON LOCK	A 4
HW19	132491-1	NUT. 6-32 HEX NYLON LOCK	A 4
HW2Ø	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW21	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW22	132491-1	NUT. 6-32 HEX NYLON LOCK	B 4
HW23	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW24	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	1	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
1 1 3	102472-3	CONN, 12POS .1 CTR SGL ROW	м 8
73			1 ,
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD JACK, 6P4 COND MODULAR R/A	L 10

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SIZE	DWG	NO.		
Α			127451	- 4

SCALE NONE PROJ NO. MD390D0 SHEET 10 OF 23

MAP LOC.  HORZ  HORZ  F 10  CB VERT  B 3  L ROW  C 1  CB VERT  B 1  B W/FASTON  G 9  B W/FASTON  E 9  AL  AL  I 7  FADIAL  AL  J 1  AL  AL  J 1  AL  BADIAL  J 1  AL  BADIAL  I 1  NGTON 100V  NGTON 100V  NGTON 100V  NGTON 100V  NGTON 100V  NGTON 100V  I 10  M 9*  TOR SOT-23  SOT-223  TOR SOT-23
HORZ
CB VERT  L ROW  C 1  CB VERT  B 1  B W/FASTON  G 9  B W/FASTON  AL  N 7  AL  I 7  RADIAL  H 8  AL  J 1  AL  RADIAL  NGTON 100V  NGTON 100V  NGTON 100V  NGTON 100V  I 10  M 9*  TOR SOT-23  SOT-223  TOR SOT-23  TOR SOT-25  T
L ROW C 1  CB VERT B 1  B W/FASTON G 9  B W/FASTON E 9  AL N 7  AL I 7  FRADIAL H B  AL J 1  AL D 1  FRADIAL I 1  NGTON 100V H 10  NGTON 100V I 10  NGTON 100V I 10  M 9*  TOR SOT-23 N 9*  ISTOR I 6  SOT-223 N 7*  T-23 N 8*  TOR SOT-23 N 7*
CB VERT       B 1         B W/FASTON       G 9         B W/FASTON       E 9         AL       N 7         AL       I 7         FADIAL       H B         AL       D 1         FADIAL       I 1         NGTON 100V       H 10         NGTON 100V       I 10         NGTON 100V       I 10         NGTON 100V       I 10         NGTON 100V       I 10         M 9*       M 9*         TOR 50T-23       N 9*         I 50T-223       M 7*         TOR 50T-23       N 8*         TOR 50T-23       N 8*         TOR 50T-23       N 7*         TOR 50T-23       N 7*         TOR 50T-23       N 7*         TOR 50T-23       N 7*         SOT-223       N 7*         TOR 50T-23       N 7*         SOT-223       N 7*         TOR 50T-23       N 7*         SOT-223       N 7*         G 9*         AC       F 9
B W/FASTON
B W/FASTON E 9 AL N 7 AL I 7 FADIAL H B AL J 1 AL D 1 FADIAL I 1 NGTON 100V H 10 NGTON 100V I 10 NGTON 100V I 10 NGTON 100V I 10 NGTON 100V I 10 M 9* TOR SOT-23 N 9* ISTOR I 6 SOT-223 M 7* T-23 N 8* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7*
AL
AL I 7  RADIAL H 8  AL J 1  AL D 1  RADIAL I 1  NGTON 100V H 10  NGTON 100V I 10  NGTON 100V I 10  M 9*  TOR SOT-23 N 9*  ISTOR I 6  SOT-223 M 7*  T-23 N 8*  TOR SOT-23 N 7*
RADIAL       H B         AL       J 1         AL       D 1         RADIAL       I 1         NGTON 100V       H 10         NGTON 100V       I 10         MGTON 100V       I 10         M 9*       M 9*         TOR 50T-23       N 9*         ISTOR       I 6         SOT-223       M 7*         T-23       N 8*         TOR 50T-23       N 8*         SOT-223       N 7*         TOR SOT-23       N 7*         SOT-223       N 7*         SOT-223       N 7*         SOT-223       N 7*         SOT-223       F 9*
AL J 1  AL D 1  RADIAL I 1  NGTON 100V H 10  NGTON 100V I 10  NGTON 100V I 10  NGTON 100V I 10  M 9*  TOR 50T-23 N 9*  ISTOR I 6  SOT-223 M 7*  T-23 N 8*  TOR 50T-23 N 8*  TOR 50T-23 N 8*  TOR 50T-23 N 8*  TOR 50T-23 N 7*  T-23 N 8*  TOR 50T-23 N 7*  T-23 N 8*  TOR 50T-23 N 7*
AL D 1 RADIAL I 1 NGTON 100V H 10 NGTON 100V I 10 NGTON 100V I 10 M 9*  TOR SOT-23 N 9*  ISTOR I 6 SOT-223 M 7* T-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 8*  TOR SOT-23 N 8*  TOR SOT-23 N 7* T-23 N 8* TOR SOT-23 N 7* T-23 N 8* TOR SOT-23 N 7* T-24 N 8* TOR SOT-25 N 7* TOR SOT-25 N 7* TOR SOT-25 N 7* TOR SOT-25 N 7* TOR SOT-25 N 7* TOR SOT-26 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7*
FADIAL       I 1         NGTON 100V       H 10         NGTON 100V       I 10         NGTON 100V       I 10         M 9*         TOR SOT-23       N 9*         3       L 9*         ISTOR       I 6         SOT-223       M 7*         T-23       N 8*         TOR SOT-23       N 8*         SOT-223       N 7*         TOR SOT-23       N 7*         SOT-223       N 7*         SOT-223       F 9*
NGTON 100V H 10 NGTON 100V I 10 NGTON 100V I 10 M 9* M 9* TOR SOT-23 N 9* ISTOR I 6 SOT-223 M 7* T-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 7* T-25 N 8* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-24 N 7* TOR SOT-25 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-28 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7*
NGTON 100V I 10 NGTON 100V I 10 M 9* M 9* TOR SOT-23 N 9* 3 L 9* ISTOR I 6 SOT-223 M 7* SOT-223 N 8* TOR SOT-23 N 8* TOR SOT-23 N 8* TOR SOT-23 N 7* T-23 N 8* TOR SOT-23 N 7* SOT-223 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-23 N 7* TOR SOT-24 N 7* TOR SOT-25 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-27 N 7* TOR SOT-28 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7* TOR SOT-29 N 7*
NGTON 100V I 100  M 9*  M 9*  TOR 50T-23 N 9*  I 5TOR I 6  SOT-223 M 7*  T-23 N 8*  TOR 50T-23 N 8*  TOR 50T-23 N 8*  TOR 50T-23 N 7*  TOR 50T-24 N 7*  TOR 50T-25 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*  TOR 50T-27 N 7*
M 9*  M 9*  TOR SOT-23 N 9*  3 L 9*  ISTOR I 6  SOT-223 M 7*  T-23 N 8*  TOR SOT-23 N 8*  TOR SOT-23 N 7*  TOR SOT-24 N 7*  TOR SOT-25 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*
M 9* TOR SOT-23 N 9*  3 L 9* ISTOR I 6 SOT-223 M 7*  5OT-223 M 7*  T-23 N 8* TOR SOT-23 N 8*  SOT-223 N 7*  TOR SOT-23 N 7*  TOR SOT-23 N 7*  TOR SOT-23 N 7*  TOR SOT-23 N 7*  TOR SOT-24 N 7*  TOR SOT-25 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*  TOR SOT-27 N 7*
TOR SOT-23 N 9*  3 L 9*  ISTOR I 6  SOT-223 M 7*  SOT-223 N 8*  TOR SOT-23 N 8*  SOT-223 N 7*  TOR SOT-23 N 7*  SOT-223 N 7*  TOR SOT-23 N 7*  AC F 9
3       L 9*         ISTOR       I 6         SOT-223       M 7*         SOT-223       M 7*         T-23       N 8*         TOR SOT-23       N 8*         SOT-223       N 7*         TOR SOT-23       N 7*         SOT-223       I 7*         G 9*         AC       F 9
I STOR I 6 SOT-223 M 7* SOT-223 M 7* T-23 N 8* TOR SOT-23 N 8* SOT-223 N 7* TOR SOT-23 N 7* SOT-223 F 7* G 9* AC F 9
SOT-223       M 7*         SOT-223       M 7*         T-23       N 8*         TOR 50T-23       N 7*         TOR SOT-223       N 7*         SOT-223       I 7*         G 9*         AC       F 9
SOT-223       M 7*         T-23       N 8*         TOR 50T-23       N 8*         SOT-223       N 7*         TOR SOT-23       N 7*         SOT-223       I 7*         G 9*         AC       F 9
T-23
TOR 50T-23 N 8*  SOT-223 N 7*  TOR SOT-23 N 7*  SOT-223 I 7*  G 9*  AC F 9
SOT-223       N 7*         TOR SOT-23       N 7*         SOT-223       I 7*         G 9*         AC       F 9
TOR SOT-23 N 7* SOT-223 I 7* G 9* AC F 9
SOT-223 I 7* G 9* AC F 9
G 9* AC F 9
AC F 9
THRESH F 9
OT-23 M 9*
к 9*
K 9*
TOR SOT-23 L 9*
ISTOR I 3
SOT-223 J 7*
SOT-223 K 7*
04 CHIP NPN 37LT1 PNP XSIS 0V 500MA SOT-2 40V NPN THANS 0V 500MA 50MHZ 0V 500MA 50MHZ

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SIZE	DWG	NO.	
Α			127451-4

PROJ NO. MD390D0

SCALE NONE

SHEET 11 OF 23

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q2Ø8	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q2Ø9	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q21Ø	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	127229-1	RES, 1100 OHM 5W 5% THICK FILM	J 8
R2	127230-1	RES, 2200 OHM 3W 5% THICK FILM	J 8
R3	A11371-3341	330K Ø.10W 5% CHIP Ø805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5		6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6		9.31K 0.1W 1% CHIP 0805	D 8*
R8	A11368-33111 A11371-1022	1K 0.125W 5% CHIP 1206	N 12*
			H 9*
R9		10K 1/10W 1% CHIP 0805	
R10		20K 0.25W 1% CHIP 1210	H 9*
R1 1	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12		68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K Ø.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

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SIZE	DWG	NO.	
Α			127451-4

SCALE NONE PROJ NO. MD390D0 SHEET 12 OF 23

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R1Ø1	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R1Ø3	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R1Ø4	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R1Ø6	A11368-10011	1K 0.10W 1% CHIP 0805	м 9*
R107		10K 1/10W 1% CHIP 0805	L 10*
R1Ø8		10K 1/10W 1% CHIP 0805	L 10*
R1Ø9		19.1K Ø.125W 1% CHIP 1206	M 9*
R110		1K 0.10W 1% CHIP 0805	L 9*
R111		10K 1/10W 1% CHIP 0805	L 9*
R112		19.1K Ø.25W 1% MF	L 9
R113		5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114		8.25K Ø.1W 1% CHIP Ø8Ø5	L 10*
R115		68.1K 0.10W 1% CHIP	L 10*
R116		226 OHM Ø.10W 1% CHIP Ø805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118		6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120		90.9K 0.10W 1% CHIP 0805	M 9*
R121		10K 1/10W 1% CHIP 0805	M 10
R122		158K Ø.10W 1% CHIP 0805	N 9*
R123		100K 0.1W 1% CHIP 0805	M 9*
R124		158K Ø.10W 1% CHIP 0805	M 9*
R125		100K 0.1W 1% CHIP 0805	N 9*
			M 9*
R126	A11368-49921		<del> </del>
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	0 8*
R131		OPEN	0 8*
R132	A11371-2223	2.2K Ø.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K Ø.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 OHM Ø.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703	137 OHM Ø.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0 8*
			<del>                                     </del>

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SIZE	DWG	NO.	
Α			127451-4

SCALE NONE PROJ NO. MD390D0 SHEET 13 OF 23

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	0 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R149	A11368-60432	604K OHM 0.125W 1% CHIP 1206	N 9*
R150		5.6 0.25W 5% CHIP	N 6*
R151	A11368-20021		N 9*
R152	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-15Ø1	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 6*
R174	<del> </del>		68*
		604K OHM 0.125W 1% CHIP 1206	68*
R175		5.11K OHM 0.10W 1% CHIP 0805	
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180	i	392K 0.10W 1% CHIP 0805	G 8*
R181		680 OHM 0.50W 5% CHIP	J 1*
R182	<del> </del>	10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 8*
R184		20K 0.25W 1% CHIP 1210	F 9*
R185		10K 1/10W 1% CHIP 0805	6.8*
R186		100K 0.1W 1% CHIP 0805	N 10*
R187	<del>i</del>	158K Ø.10W 1% CHIP 0805	M 10*
R188	i	158K 0.10W 1% CHIP 0805	N 10*
R189		100K 0.1W 1% CHIP 0805	M 10*
R190	<b>i</b>	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601		N 6*
R192		604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	м 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*
R196	MITSON INCL		

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SIZE	DWG	NO.		
Α			127451-	- 4

SCALE NONE PROJ NO. MD390D0 SHEET 14 OF 23

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R199	A11371-0R01	0 OHM 0.1W CHIP 0805	N 8*
R200	102595-3	POT. 5K LIN 21 DNT 12MM HORIZ	N 1
R2Ø1	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R2Ø2	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R2Ø5	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K Ø.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K Ø.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM Ø.10W 1% CHIP Ø805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K Ø.1ØW 1% CHIP Ø8Ø5	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-B211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	н 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM Ø.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM Ø.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R246	A11371 1213	13K OHM 0.10W 5% CHIP 0805	J 2*
		TON CLUM O. TOW OW CHILL BODS	+

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SIZE	DWG	NO.		
Α			127451-	- 4

SCALE NONE PROJ NO. MD390D0 SHEET 15 OF 23

	T =	PARTS LIST	I
REF DES		DESCRIPTION	MAP LOC.
R247		100 OHM 0.10W 5% CHIP 0805	J 2*
R248		180 OHM 0.10W 5% CHIP	K 2*
R249	A11368-60432	604K OHM 0.125W 1% CHIP 1206	K 9*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R251	A11368-20021	20K OHM 0.10W 1% CHIP 0805	K 9*
R252	103199-1	0.4 OHM 1W 5% 2512 T/A	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/A	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285		10K 1/10W 1% CHIP 0805	F 8*
R286		100K 0.1W 1% CHIP 0805	L 10*
R287		158K 0.10W 1% CHIP 0805	K 10*
R288		158K 0.10W 1% CHIP 0805	K 10*
R289	i	100K 0.1W 1% CHIP 0805	K 10*
R290		57.6K Ø.10W 1% CHIP Ø805	N 3*
R291		226 OHM 0.10W 1% CHIP 0805	N 3*
R292		604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10
R299	A11371-ØRØ1	Ø OHM Ø.1W CHIP Ø805	K 8*
R300	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 6*
R3Ø1	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 6*
R3Ø2	103199-1	Ø.4 OHM 1W 5% 2512 T/R	K 5*
R305	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 6*
	-62122-1	D.	I IVI 🗆 "

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SIZE	DWG	NO.	
Α			127451-4

SCALE NONE PROJ NO. MD390D0 SHEET 16 OF 23

	T =	PARTS LIST	T
REF DES		DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/A	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	66*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R01	Ø OHM Ø.1W CHIP Ø805	G 8
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*
<b>R40</b> 2	103199-1	Ø.4 OHM 1W 5% 2512 T/R	К 3*
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*
R4Ø7	103199-1	Ø.4 OHM 1W 5% 2512 T/A	E 4*
R408	1 <b>0</b> 3 <b>19</b> 9-1	Ø.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	Ø.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	к 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	i	100 OHM ,25W 5% 1210 SMT T/R	J 9
R423	A11371-0R01	0 OHM 0.1W CHIP 0805	F 8
R500		10K 1/10W 1% CHIP 0805	A 3
R5Ø1		10K 1/10W 1% CHIP 0805	A 2
R502	1	10K 1/10W 1% CHIP 0805	B 2
R503	<del> </del>	10K 1/10W 1% CHIP 0805	B 2
R5Ø4	A11368-20011		A 2
R506	A11368-20011	2K 1/10W 1% CHIP 0805	A 2
R5Ø8	7.,,,500 28011	OPEN	E 2
R600	A11368-10021		A 1
R601	A11368-10021		A 1
R6Ø2	A11368-10021		A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	2K 1/10W 1% CHIP 0805	A 2
	<del> </del>		C 3
R605 R606	A11371-1501 A11368-20011	15 OHM 0.10W 5% CHIP	B 2
	. а <del>.</del> Бн /ИИ 1 1 .	2K 1/10W 1% CHIP 0805	1 B 2

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A	DWG	NO.	1274	151-4	
SCAL	E NO	INE	PROJ NO	. MD390D0	SHEET

REV A

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		PARTS LIST	
	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R6Ø8		OPEN	C 1
R609	A11371-1501	15 OHM 0.10W 5% CHIP	С 3
R610	A11371-1501	15 OHM 0.10W 5% CHIP	B 1
<b>S</b> 1	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
<b>⊔</b> 1	C 5095-2	POS. 15 VOLT REG.	H 10
LI1 X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	н 9
⊔2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	н 9
П3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
<b>∐</b> 4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	Р 9
U100	102723-2	OPTO CELL ON=500 OHM	м 9
U1Ø1	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U1@2	C 9038-8	COMPARATOR, QUAD LM339D 50-14	В 9
U1Ø4	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U1 <b>0</b> 5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U1Ø6	<b>†</b>		N 6
	127683-1	ASM. CE THERMAL SENSOR	1
U200	102723-2	OPTO CELL ON=500 OHM	K 9 J 10
U2@1	C 9012-3	MC33079D QUAD LO NOISE OF AMP	<u> </u>
U2Ø2	C 9038-8	COMPARATOR, QUAD LM339D 50-14	K 9
U2Ø4	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U2Ø6	127683-1	ASM. CE THERMAL SENSOR	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	<del> </del>	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	<del>`</del>	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8
W₽ <i>7</i>	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
Z100	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	M 10
Z100X	C 6419-3	SHUNT, .025" SO POST 2 POS	M 10
Z200	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	K 10
Z200X	C 6419-3	SHUNT, .025" SQ POST 2 POS	K 10
1	127450-1	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAI
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAI
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAR
4	126825-1	SILICONE, CLEAR 30Z SYRINGE	SEE COMP MAR
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAI
Б	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAI
7	103180-1	BUMPER, Ø.4" TALL BLK W/ADH	SEE COMP MAI
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAI
	1	•	

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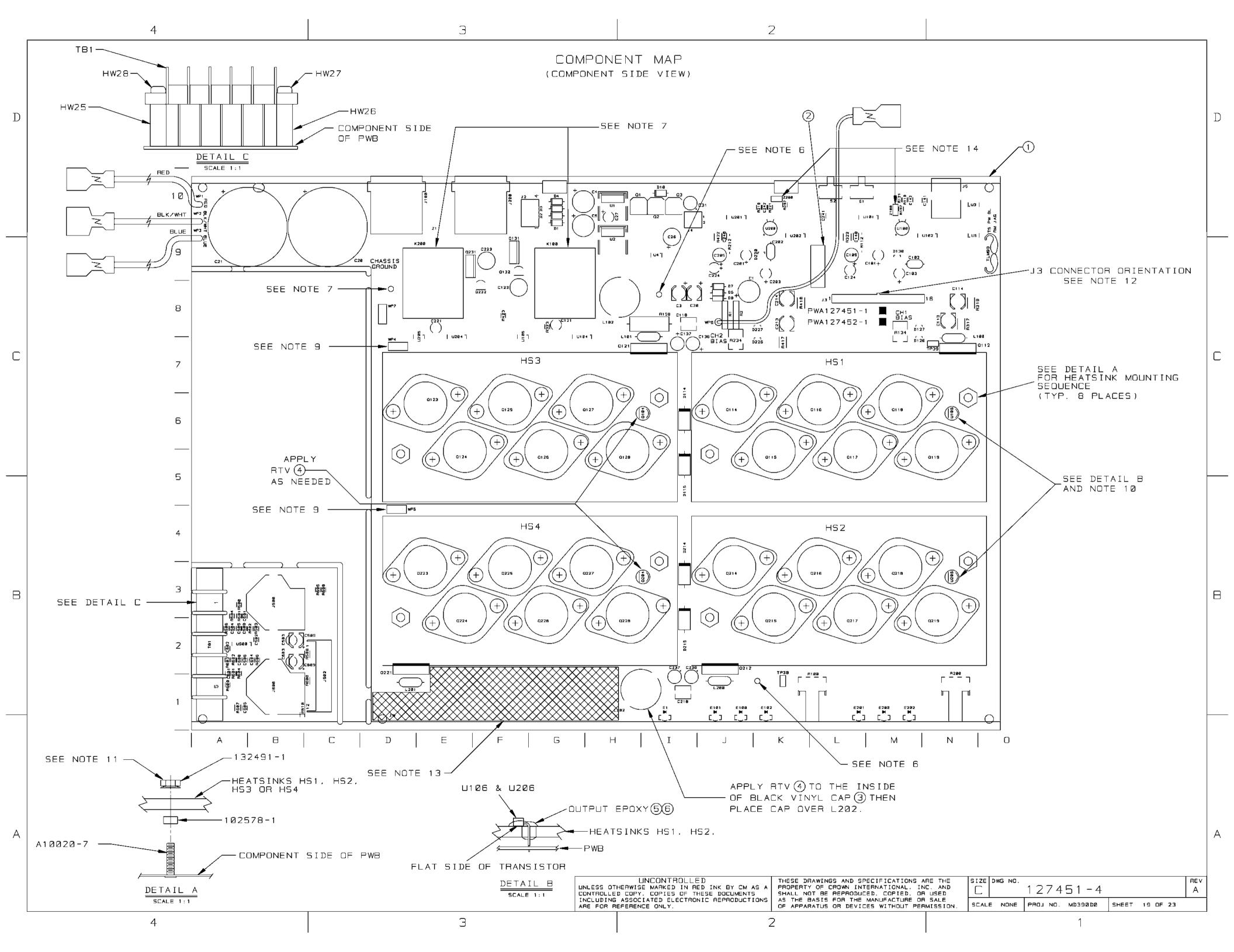
SIZE	DWG	NO.			
Α			1	27451-	- 4

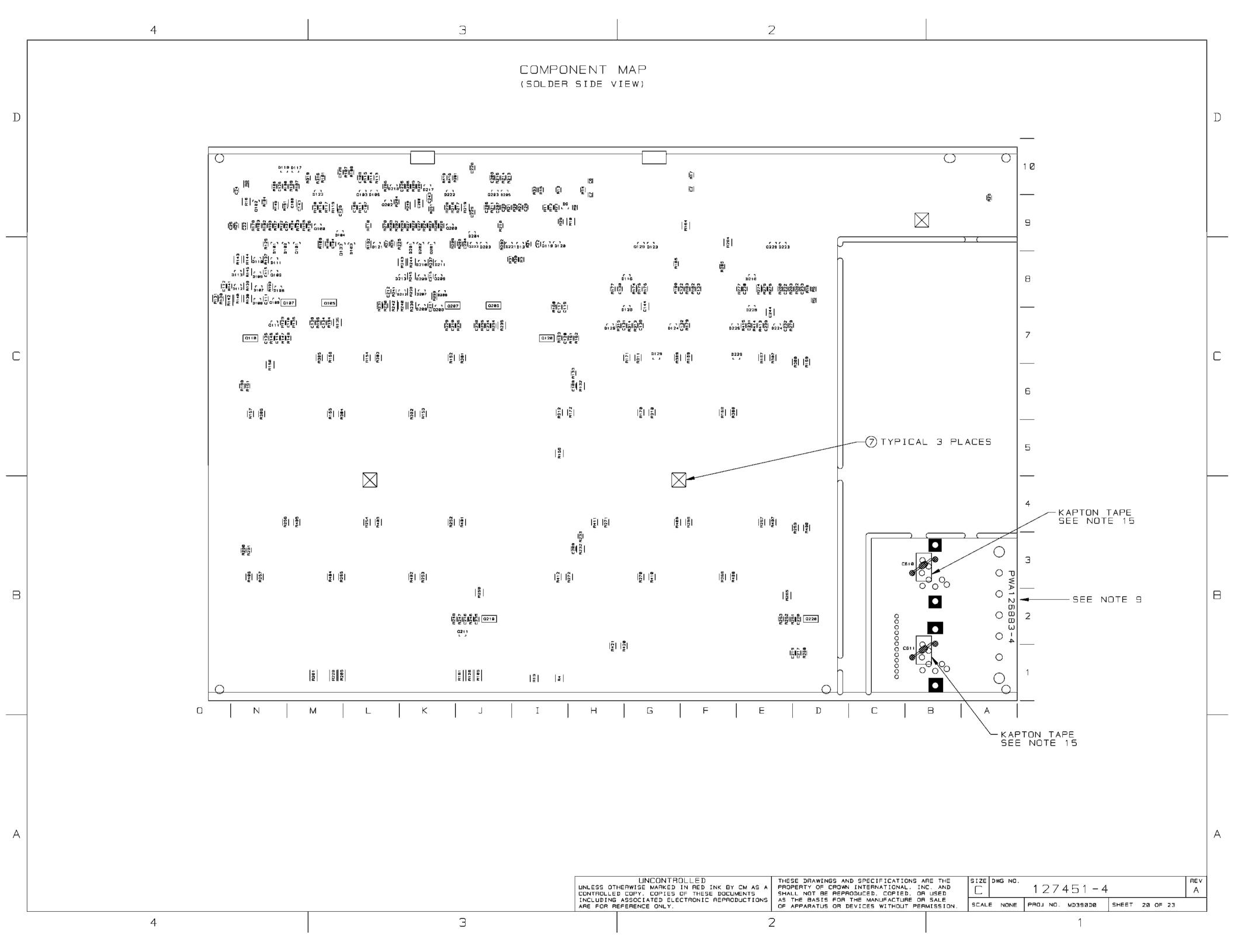
SCALE NONE PROJ NO. MD390D0 SHEET 18 OF 23



## **Component Map**

for use with Main/Input PWA 127451-4





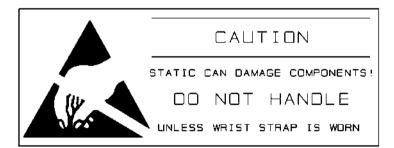
	REVISION HISTORY						
E.C.N.	ĦE♥	DESCRIPTION	DATE	AP DWN	PAOV CM	PE	
	Α	INITIAL RELEASE DERIVED FROM 127452-2 REV B NUMEROUS CHANGES	12/18/01	PJ	MMG	PJ	

## NOTES:

- PRINTED WIRING BOARD PART NUMBER 127450-1.
- THE PWA SHALL MEET THE IPC-A-610\_ CLASS 2 STANDARDS.
- ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS. Э.
- POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
- COMPONENTS THAT HAVE (\*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
- 6. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
- THE VENT HOLE ON TOP OF THE RELAYS KIDO AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
- CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
- 9. THE PWA PART NUMBER FOR THE MAIN MODULE SHALL BE MARKED ON THE TOP SIDE OF THE PRINTED WIRING BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-4. SHALL BE MARKED ON THE BOTTOM SIDE OF THE PRINTED WIRING BOARD FOR THE INPUT MODULE, SEE COMPONENT MAP FOR LOCATIONS.
- 10. INSTALLATION OF U106 AND U206 IS AS FOLLOWS: 11A. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN 11B. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
  - 11C. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER.
    APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)

    11D. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP

- 11. TORQUE 6-32 HEX NUTS (CPN 132491-1) AS FOLLOWS:
  12A. PRE-WAVE TORQUE OF 11-13 INCH LBS.
  12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING
  TEMPERATURE TORQUE OF 11-13 INCH LBS.
  12. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
- 13. NO LABELS OR MARKINGS ALLOWED IN AREA INDICATED.
- 14. INSTALL SHUNT OVER ONE PIN ONLY OF Z100 AND Z200.
- 15. HAND SOLDER C610 (C 6806-1). AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN. USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



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DISTRIBUTION		DWN	PJ	12/18/01	TATO II. MIDINAKA IID.	
K			СМ	MMG	1-23-02	1110/12/2137237 0000
FILENA	ME		PE	₽J	12/18/01	INTERNATIONAL, INC. www.cnownintl.com
127452	-4_A_01.f	°C8				
TOLERANCE UNLESS OTHERWISE SPECIFIED						PWA, MAIN/INPUT CE2000
	00 - ±.1	<b>32</b> "				SIZE DWG NO. REV
. –	LS = ±.					A 127452-4 A
DO NOT	SCALE DE	RAWING				SCALE NONE PROJ NO. MD390D0 SHEET 1 OF 24

C.P.N. DESCRIPTION QTY REFERENCE DESIGNATION A10020-7 6-32 X .625 PCB CAPTIVE STUD 8 HW9.HW10.HW11.HW12.H HW15.HW16  A10265-19121 19.1K 0.25W 1% MF 2 R112.R212  A10266-2R74 2.7 OHM 2W 5% CF 1 R158  A10434-104JD 0.1 MF 250V 5% MTL POLY 2 C118,C218	
HW15, HW16  A10265-19121 19.1K 0.25W 1% MF 2 R112, R212  A10266-2R74 2.7 OHM 2W 5% CF 1 R158  A10434-104JD 0.1 MF 250V 5% MTL POLY 2 C118, C218	W13,HW14.
A10265-19121 19.1K 0.25W 1% MF 2 R112,R212 A10266-2R74 2.7 OHM 2W 5% CF 1 R158 A10434-104JD 0.1 MF 250V 5% MTL POLY 2 C118,C218	
A10266-2R74 2.7 OHM 2W 5% CF 1 R158 A10434-104JD 0.1 MF 250V 5% MTL POLY 2 C118,C218	
A10434-104JD 0.1 MF 250V 5% MTL POLY 2 C118, C218	
A44300 48844 4W 0 48W 4W CHID 8885	
A11368-10011   1K 0.10W 1% CHIP 0805   8   R101.R106.R110.R201.	R206.
R210.R316.R416	
A11368-10021   10K 1/10W 1% CHIP 0805   31   R9.R104.R107.R108.R1	11,
R121,R176,R177,R182,	R185,
R193.R196.R204.R211.	R221.
R276.R277.R282.R285.	R293.
R296.R313.R413.R500.	R501.
R502.R503.R600.R601.	R602.
R603	
A11368-10031   100K 0.1W 1% CHIP 0805   15   R25.R30.R31.R123.R129	5.8179,
R183.R186,R189,R223.8	R225,
R279.R283.R286.R289	
A11368-10221   10.2K 0.10W 1% CHIP 0805   2   R118.R218	•
A11368-10703   107 OHM 0.25W 1% CHIP   2   R139.R239	
A11368-12121   12.1K OHM 0.10W 1% CHIP 0805   1   R21	
A11368-15831   158K 0.10W 1% CHIP 0805   8   R122,R124,R187,R188,8	7222.
A11368-19122	
R224.R287,R288	
A11368-20011 2K 0.1W 1% 0805 T/R 4 R504,R506,R604,R606	
A11368-20021	
A11368-20023 20K 0.25W 1% CHIP 1210 3 R10,R184,R284	
A11368-22601 226 OHM 0.10W 1% CHIP 0805 4 R116,R191,R216,R291	
A11368-39231 392K Ø.10W 1% CHIP Ø8Ø5 6 R22,R23,R102,R180,R20	12.R280
A11368-49901 499 OHM 0.10W 1% CHIP 0805 2 R103,R203	
A11368-49902 499 OHM 0.125W 1% 1206 T/R 2 R137,R237	
A11368-49921   49.9K 0.1W 1% CHIP 0805   2   R126,R226	
A11368-51111   5.11K OHM 0.10W 1% CHIP 0805   6   R113,R175,R213,R275,F	R315,R415
A11368-57621   57.6K 0.10W 1% CHIP 0805   4   R20,R24,R190,R290	
A11368-60432 604K OHM 0.125W 1% CHIP 1206 6 R149,R174,R192,R249,F	7274,
R292	
A11368-61911   6.19K 0.10W 1% CHIP 0805   2   R197,R297	
A11368-68121 68.1K 0.10W 1% CHIP 3 R12,R115,R215	
A11368-69811 6.98K OHM 0.10W 1% CHIP 0805 1 R5	
A11368-75R03 75 OHM 0.25W 1% CHIP 1210 2 R145.R245	
A11368-71511 7.15K OHM Ø.10W 1% CHIP Ø805 1 R18	
A11368-82511 8.25K 0.1W 1% CHIP 0805 3 R17.R114.R214	
A11368-90921 90.9K 0.10W 1% CHIP 0805 4 R120,R178,R220,R278	
A11368-93111 9.31K 0.1W 1% CHIP 0805 1 R6	
A11369-102J2 0.001UF 50V 5% NPO MLC 0805 2 C134.C234	
A11369-120K2   12PF 50V 10% NPO 0805 T/R   6   C500,C501,C502,C600,C	C601,C602
A11369-270K2 27PF 50V 10% NPO 0805 T/R 2 C107.C207	
A11369-330J2 33PF 50V 5% NPO MLC 0805 2 C142.C242	
A11369-471K2 470PF 50V 10% 0805 T/R 4 C110.C141.C210.C241	
A11371-0R01 0.0 OHM JUMPER CHIP 0805 4 R199.R299.R323.R423	
A11371-R221 0.22 OHM 0.10W 5% CHIP 0805 3 R14,R15,R33	

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SIZE	DWG	NO.	
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REV A

PROJ NO. MD39000 SH

	PARTS LIS	Τ	
C. P. N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	R160, R260, R605, R609, R610
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4.R19
A11371-3333	33K Ø.25W 5% CHIP 121Ø	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,
			R414
A11371-3923	3.9K Ø.25W 5% CHIP	3	R16. R135. R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-47Ø1	47 OHM 0.10W 5% CHIP	2	R162, R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142, R242
A11371-5R63	5.6 Ø.25W 5% CHIP	4	R150.R165.R250.R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R101,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-B201	82 OHM Ø.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109.C111.C115.C209.C211.C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143.C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6.C7.C12.C24.C25.C28.C29.
			C122.C126.C127.C128.C129.
			C130.C131.C132.C133.C139.
			C222.C226.C227.C228.C229.
			C230.C231.C232.C233.C239.
			C505.C506.C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1.D2.D3.D4.D6.D7.D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N52408	1	DB
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4, C5
C 5095-2	POS. 15 VOLT REG.	1	Ш1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6419-3	SHUNT, .025" SQ POST 2 POS	2	Z100X, Z200X SEE NOTE 15
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	0.01 UF 50V AXIAL CER T/R	2	C610, C611
	1		1

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A	DWG NO.	1274	52-4		
SCAL	E NONE	PROJ NO.	MD390D0	SHEET	3 OF

SHEET 3 OF 24 REV Α

	PARTS LIS	Т	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 7091-9	0.33 MF 50V CHIP 1206	3	C22, C140, C240
C 7325-1	2P 2 POS. PC SLIDE SW.	2	S1,S2
C 7448-1	MMBT3904 CHIP NPN	6	0100,0101,0129,0200,0201,0229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4.U5.U105.U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101.U201.U500
C 9038-8	COMPARATOR, OLAD LM339D SO-1	4	U102.U104.U202.U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123, C223
C 9202-0	2 PIN SGL ROW VERT GOLD HDR	2	Z100. Z200
C 9252-5	2N3904 40V NPN TRANSISTOR	2	0104.0204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9. D13. D101. D102. D103. D104.
			D105.D106.D107.D108.D109.
			D110. D111. D112. D113. D116.
			D117.D118.D119.D120.D121.
			D122.D123.D124.D125.D126.
			D127.D128.D129.D130.D201.
			D202.D203.D204.D205.D206.
			D207.D208.D209.D210.D211.
			D212.D213.D216.D217.D218.
			D221.D222.D223.D224.D225.
			D226, D227, D228, D229, D230
C 9896-9	TEST POINT LOOP	2	TP38, TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1 X, U2 X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	0102,0109,0111,0202,0209,0211
C12196-1	2.2MF 50V 20% RAD T/R	4	C121, C124, C221, C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105, C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114, D115, D214, D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134, R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20.C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4, WP5, WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102438-101K2	100PF 200V 10% NPO 0805	6	C104, C120. C135, C204, C220, C235
102438-221K2	220PF 200V 10% NPO 0805	2	C504, C604
102438-560K2	56PF 200V 10% NPO 0805	2	C106, C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108. C138. C208. C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101.C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103, C203, C503, C603
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS .1 CTR SGL ROW	1	J502
102472-3	CONN, 12POS .1 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100, J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN		E1.E101.E201
102477-1	LED, SMT R/A RED	4	E100.E102.E200.E202
	<u> </u>		

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SIZE	DWG	NO.					
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PROJ NO. MD390D0

SHEET

	PARTS LIS	Τ	
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102478-1	TRIAC DRIVER SBS BV THRESH	2	Q132.Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1.Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133, Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q109.Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
1 0 2 4 8 6 - 1	OPTO BJT NPN SOIC-8 CTR =100	1	⊔3
102574-3	HS ASM. T2 ISOLATED CH2	1	H54
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1.HW2.HW3.HW4.HW5.HW6.HW7.
102579-1	STAND. 1/4 RD SWAGE AL	2	HW25.HW26
102595-3	POT. SK LIN 21 DNT 12MM HORI	2	R100.R200
102723-2	OPTO CELL ON=500 OHM	2	⊔100.U200
103180-1	BUMPER. 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	4	C100, C144, C200, C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	0105.0120.0205.0220
103199-1	0.4 OHM 1W 5% 2512 T/R	52	R152,R153,R154,R155,
			R156,R157,R159,R167,R168,
			R169.R170.R171.R172.R252.
			R253.R254.R255,R256.R257.
			R259,R267,R268,R269,R27Ø,
			R271.R272.R300.R301.R302.
			R303.R304.R305,R306.R307.
			R308, R309, R310, R311, R312,
			R400,R401,R402,R403,R404,
			R405,R406,R407,R408,R409,
			R410.R411.R412
103210-1	2.2UF 160V HADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	0.1 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW.6-32 X.5 TORX PNHD SEM	2	HW27, HW28
125106-1	MACSD 8 AMP 400V TRIAC	2	0131,0231
125242-1	CAP625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	2	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	2	6
1 25508 - 1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
1 26825 - 1	SILICONE, CLEAR 30Z SYRINGE	2	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127229-1	RES, 1100 OHM 5W 5% THICK FI	1	R1
127230-1	RES. 2200 OHM 3W 5% THICK FI	1	R2
127299-1	47UF 6.3V 20% NP ALUM ELECT	4	C113, C114, C213, C214
127450-1	PWB. CE1000/CE2000 MAIN/INPU	1	1
127683-1	SENSOR. CE THERMAL	2	⊔1 06 . U2 06
	NUT, 6-32 HEX NYLON LOCK	8	HW17, HW18, HW19, HW20, HW21
	INDI, O DZ HEA NIEUN EOEK		HW22, HW23, HW24
132491-1	I		1774
	HS ASM CEROOD ISOLATED CHI	1	nea
1 3 3 6 9 7 - 1	HS ASM. CE2000 ISOLATED CH1	1	H53
	HS ASM. CE2000 ISOLATED CH1 HS ASM.CE2000 NON-ISOLATEDCH1		H53 HS1

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size A	DWG	NO.	1 2	74	52-4	
SCAL	E NO	NE	PROJ	NO.	MD390D0	SHEET

SHEET 5 OF 24

REF DES	C. P. N.	PARTS LIST DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J B
 C2		0.01 MF 100V 10% X7R 0805 SMD	F 9*
<u> </u>	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
<u></u> С4	C 4477-3	470 MF 35V VERT	G 10
<u>C5</u>	C 4477-3	470 MF 35V VERT	G 9
 C6		0.1 MF 50V 10% 0805	H 10*
 C7		Ø.1 MF 50V 10% 0805	H 9*
C12		0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	<u> </u>
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
 [24		0.1 MF 50V 10% 0805	N 9*
C25		0.1 MF 50V 10% 0805	0.9*
C26	C 8576-8	100 MF 35V 10% ELEC	1 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28		0.1 MF 50V 10% 0805	J 9*
C29		0.1 MF 50V 10% 0805	1 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	1 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C100	103191-1	0.47UF Z5U 1210 20% 50V	N 9*
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	м 9
C104		100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106		56PF 200V 10% NPO 0805	L 9*
C107		27PF 50V 10% NPO 0805 T/R	L 9*
C128		82PF 200V 10% NPO 0805	L 10*
C109		0.01MF 50V 10% CHIP 0805	H 6*
C110		470PF 50V 10% NPO 0805 T/R	M 7*
C111		0.01MF 50V 10% CHIP 0805	N 8*
C112		0.012 MF 50V 10% CHIP	0.8*
C113	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N B
C114	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N B
C115		0.01 MF 50V 10% CHIP 0805	N 8*
C116			N 7*
		4700PF 50V 10% X7R 0805 2700PF 50V 10% CHIP 0805	I 7*
C117 C118		0.1 MF 250V 5% MTL POLY	I 8
C119		4700PF 50V 10% X7R 0805	I 7*
C12Ø		100PF 200V 10% X/H 0805	I 7*
C120	C10196-1	2.2MF 50V 20% RAD T/R	G B
C121		0.1 MF 50V 10% 0805	
C122		100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C 9157-6	2.2MF 50V 20% RAD T/R	L 9
	C10196-1	0.1 MF 50V 10% 0805	N 10*
C126			
C127		0.1 MF 50V 10% 0805	N 9*
C128		0.1 MF 50V 10% 0805	M 10*
C129	A1142/-104K2	0.1 MF 50V 10% 0805	M 9*

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SIZE A	DWG NO.	127452-4	

SCALE NONE PROJ NO. MD390D0 SHEET 6 OF 24

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
C13Ø	A11427-104K2	0.1 MF 50V 10% 0805	н в*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F B*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
□141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0005	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	м 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C200	103191-1	0.47UF Z5U 1210 20% 50V	K 9*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	к э
C2Ø3	102467-1	22MF 25V 20% RAD T/R	К 9
C204		100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C2Ø6		56PF 200V 10% NPO 0805	J 9*
C207		27PF 50V 10% NPO 0805 T/R	J 9*
C208		82PF 200V 10% NPO 0805	J 10*
C2Ø9		0.01MF 50V 10% CHIP 0805	H 3*
C210		470PF 50V 10% NPO 0805 T/R	K 7*
C211		0.01MF 50V 10% CHIP 0805	K 7*
C212		0.012 MF 50V 10% CHIP	L B*
C213	102468-1	47UF 10V 20% NP RAD T/R	K B
C214	102468-1	47UF 10V 20% NP RAD T/R	КВ
C215		0.01 MF 50V 10% CHIP 0805	К В*
C216		4700PF 50V 10% X7R 0805	J 2*
C217		2700PF 50V 10% CHIP 0805	D 1 *
C218		0.1 MF 250V 5% MTL POLY	I 1
C219		4700PF 50V 10% X7R 0805	E 1*
C22Ø		100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E B
C222		0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2,2MF 50V 20% RAD T/R	7 9
C226		0.1 MF 50V 10% 0805	K 10*
C227		0.1 MF 50V 10% 0805	K 9*
C228		0.1 MF 50V 10% 0805	J 10*
C229		0.1 MF 50V 10% 0805	J 9*
C23Ø		0.1 MF 50V 10% 0805	E 8*
C230		0.1 MF 50V 10% 0805	E 7*
			E 7*
C232		0.1 MF 50V 10% 0805 0.1 MF 50V 10% 0805	<u> </u>
L233	A     4 Z / -   10 4 K Z	עשב אשו אשר אוי. ש	D 8*
			+
	L		1

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SIZE	DWG	NO.	
Α			127452-4

SCALE NONE | PROJ NO. MD390D0 | SHEET 7 OF 24

		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C <b>2</b> 37	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-221K2	220PF 200V 10% NPO 0805	A 2
C505		0.1 MF 50V 10% 0805	A 2
C506		0.1 MF 50V 10% 0805	A 2
 C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601		12PF 50V 10% NPO 0805 T/R	A 1
C602		12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604		220PF 200V 10% NPO 0805	B 2
C605		0.1 MF 50V 10% 0805	A 1
C609	MITIEZ TERRE	OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6			J 8
D7	C 2851-1	1N4004 SILICON RECT.	
D8	C 2851-1	1N4004 SILICON RECT. DIODE ZENER, 10V, 1N52408	7 8
	C 3549-0		J B
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D12	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 8*

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A	DWG	NO.	12	74	-52-4	1
SCAL	E NO	NE	PROJ	NO.	MD390D0	SHEET

SHEET 8 OF 24

	1	PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
D109	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	N B*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N B*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE. 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	M 10 *
D118	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	N 101*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	1 9*
D12Ø	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9*
D123	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	мв
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	м 9
D201	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D2Ø3	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D21Ø	C 9283-0	DIODE, 1N914/1N414B SOT-23 SMT	K B*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	К В*
D213	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	К В*
D214	C1@422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 1Ø*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE. 1N914/1N4148 SOT-23 SMT	КВ
	<b>I</b>	-	+

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SIZE	DWG 1		
Α		127452-4	
-		127132 1	

SCALE NONE PROJ NO. MD390D0 SHEET 9 OF 24

REF DES	C. P. N.	PARTS LIST DESCRIPTION	MAP LOC.
D228	C 9283-Ø	DIODE. 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D23Ø	C 9283-Ø	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
==== E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	133698-1	HS ASM, CE2000 NON-ISOLATED CH1	L 6
H52	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	133697-1	HS ASM. CE2000 ISOLATED CH1	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	8 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW1 0	A10020-7	6-32 X .625 PCB CAPTIVE STUD	16
HW1 1	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW1 4	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW18		NUT, 6-32 HEX NYLON LOCK	A 4
HW19	132491-1	NUT, 6-32 HEX NYLON LOCK	
	132491-1		A 4
HWZØ	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW21 HW22	132491-1	NUT, 6-32 HEX NYLON LOCK NUT, 6-32 HEX NYLON LOCK	A 4
HW23	132491-1	NUT, 6-32 HEX NYLON LOCK NUT, 6-32 HEX NYLON LOCK	B 4
HW24	132491-1 102579-1	· · · · · · · · · · · · · · · · · · ·	B 4
HW25		STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27		SCREW.6-32 X.5 TORX PNHD SEM	A 4
HW28		SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J 2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
13 13	102472-3	CONN. 12POS .1 CTR SGL ROW	M 8
J 4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK. 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J 200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
	1		

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REV

SCALE NONE PROJ NO. MD390D0

REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	В 3
J502	102471-2	HDR, 12POS .1 CTR SGL ROW	С 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE. 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE. 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE. 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE. 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
<b>Q</b> 1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
<b>Q</b> 3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
0101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
0104	C 9252-5	2N3904 40V NPN TRANSISTOR	1.6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ 50T-223	M 7*
Q128	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N B*
Q110	103192-1	NPN 300V 500MA 50MHZ 50T-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 25C5242	I 7
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MACSD B AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q2Ø1	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q2Ø2	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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REV

SCALE NONE PROJ NO. MD390D0

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DEE DEE	CBN	DESCRIPTION	344B   OC
REF DES		DESCRIPTION	MAP LOC.
0203	102483-1	PNP 300V 500MA SOT-23	
0204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
0205	103193-1	PNP 300V 500MA 50MHZ 50T-223	J 7*
3207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
2208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
0209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K B*
0210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
0211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
0212	103200-1	NPN 230V 15A 30MHZ 25C5242	J 1
Q22Ø	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
0221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
0229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
0232	102478-1	TRIAC DRIVER SBS BV THRESH	FB
0233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	127229-1	RES, 1100 OHM SW 5% THICK FILM	J 8
R2	127230-1	RES, 2200 OHM 3W 5% THICK FILM	J 8
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	Н 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	н 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	1 9*
R12	A11368-68121	68,1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K Ø.25W 5% CHIP	N 9*
R17		8.25K 0.1W 1% CHIP 0805	F 10*
R18		7.15K OHM 0.10W 1% CHIP 0805	р в*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R2Ø	A11368-57621		1.9*
	X11300 37021	37.4K 2.74W 77 E1111 BBB3	

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R22 A R23 A R24 A R25 A R26 A R27 A R28 A R29 A R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-12121 A11368-39231 A11368-39231 A11368-57621 A11368-10031 A11371-3341 A11368-20021 A11371-7511 A11368-10031 A11368-10031 A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11368-10021	DESCRIPTION  12.1K OHM Ø.10W 1% CHIP Ø8Ø5  392K Ø.10W 1% CHIP Ø8Ø5  392K Ø.10W 1% CHIP Ø8Ø5  57.6K Ø.10W 1% CHIP Ø8Ø5  10ØK Ø.1W 1% CHIP Ø8Ø5  33ØK Ø.10W 5% CHIP Ø8Ø5  20K 1/10W 1% CHIP Ø8Ø5  75Ø OHM Ø.10W 5% CHIP  OPEN  10ØK Ø.1W 1% CHIP Ø8Ø5  10ØK Ø.1W 1% CHIP Ø8Ø5  0.22 OHM Ø.10W 5% CHIP Ø8Ø5  POT. 5K LIN 21 DNT 12MM HORIZ  1K Ø.10W 1% CHIP Ø8Ø5  392K Ø.10W 1% CHIP Ø8Ø5  499 OHM Ø.10W 1% CHIP Ø8Ø5	MAP LOC.  J 9*  I 9*  I 9*  I 9*  N 9*  A 9*  L 9*  L 9*  B 2  I 8*  J 8*  I 10*  L 1  M 10*  N 9*
R22 A R23 A R24 A R25 A R26 A R27 A R28 A R29 A R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-39231 A11368-39231 A11368-57621 A11368-10031 A11371-3341 A11368-20021 A11371-7511 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-49901 A11368-10021 A11371-6814	392K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 57.6K 0.10W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 330K 0.10W 5% CHIP 0805 20K 1/10W 1% CHIP 0805 750 OHM 0.10W 5% CHIP OPEN 100K 0.1W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 0.22 OHM 0.10W 5% CHIP 0805 POT. 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	I 9* I 9* I 9* N 9* A 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R23 A R24 A R25 A R26 A R27 A R28 A R29 A R30 A R31 A R31 A R31 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-39231 A11368-57621 A11368-10031 A11371-3341 A11368-20021 A11368-10031 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11371-6814	392K 0.10W 1% CHIP 0805 57.6K 0.10W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 330K 0.10W 5% CHIP 0805 20K 1/10W 1% CHIP 0805 750 OHM 0.10W 5% CHIP OPEN 100K 0.1W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 0.22 OHM 0.10W 5% CHIP 0805 POT. 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	I 9* I 9* N 9* A 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R24 A R25 A R26 A R27 A R28 A R29 A R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-57621 A11368-10031 A11371-3341 A11368-20021 A11371-7511 A11368-10031 A11368-10031 A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11371-6814	57.6K 0.10W 1% CHIP 0805  100K 0.1W 1% CHIP 0805  330K 0.10W 5% CHIP 0805  20K 1/10W 1% CHIP 0805  750 OHM 0.10W 5% CHIP  OPEN  100K 0.1W 1% CHIP 0805  100K 0.1W 1% CHIP 0805  0.22 OHM 0.10W 5% CHIP 0805  POT. 5K LIN 21 DNT 12MM HORIZ  1K 0.10W 1% CHIP 0805  392K 0.10W 1% CHIP 0805  499 OHM 0.10W 1% CHIP 0805	I 9* N 9* A 9* L 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R25 A R26 A R27 A R28 A R29 R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-10031 A11371-3341 A11368-20021 A11371-7511 A11368-10031 A11368-10031 A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11371-6814	100K 0.1W 1% CHIP 0805  330K 0.10W 5% CHIP 0805  20K 1/10W 1% CHIP 0805  750 OHM 0.10W 5% CHIP  OPEN  100K 0.1W 1% CHIP 0805  100K 0.1W 1% CHIP 0805  0.22 OHM 0.10W 5% CHIP 0805  POT. 5K LIN 21 DNT 12MM HORIZ  1K 0.10W 1% CHIP 0805  392K 0.10W 1% CHIP 0805  499 OHM 0.10W 1% CHIP 0805	N 9* A 9* L 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R26 A R27 A R28 A R29 A R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11371-3341 A11368-20021 A11371-7511 A11368-10031 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021	330K Ø.10W 5% CHIP Ø805  20K 1/10W 1% CHIP Ø805  750 OHM Ø.10W 5% CHIP  OPEN  100K Ø.1W 1% CHIP Ø805  100K Ø.1W 1% CHIP Ø805  0.22 OHM Ø.10W 5% CHIP Ø805  POT. 5K LIN 21 DNT 12MM HORIZ  1K Ø.10W 1% CHIP Ø805  392K Ø.10W 1% CHIP Ø805  499 OHM Ø.10W 1% CHIP Ø805	A 9* L 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R27 A R28 A R29 R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-20021 A11371-7511 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-10021 A11368-10021	20K 1/10W 1% CHIP 0805 750 OHM 0.10W 5% CHIP OPEN 100K 0.1W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 0.22 OHM 0.10W 5% CHIP 0805 POT. 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	L 9* L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R28 A R29 R30 A R31 A R33 A R100 1 R101 A R102 A R103 A R104 A R105 A R106 A R107 A	A11371-7511 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021	750 OHM 0.10W 5% CHIP  OPEN  100K 0.1W 1% CHIP 0805  100K 0.1W 1% CHIP 0805  0.22 OHM 0.10W 5% CHIP 0805  POT. 5K LIN 21 DNT 12MM HORIZ  1K 0.10W 1% CHIP 0805  392K 0.10W 1% CHIP 0805  499 OHM 0.10W 1% CHIP 0805	L 9* B 2 I 8* J 8* I 10* L 1 M 10*
R29 R30 A R31 A R33 A R100 1 R101 A R102 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-10031 A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021	OPEN  100K 0.1W 1% CHIP 0805  100K 0.1W 1% CHIP 0805  0.22 OHM 0.10W 5% CHIP 0805  POT. 5K LIN 21 DNT 12MM HORIZ  1K 0.10W 1% CHIP 0805  392K 0.10W 1% CHIP 0805  499 OHM 0.10W 1% CHIP 0805	B 2 I B* J B* I 10* L 1 M 10*
R30 A R31 A R33 A R100 1 R101 A R102 A R103 A R104 A R105 A R106 A	A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021	100K 0.1W 1% CHIP 0805 100K 0.1W 1% CHIP 0805 0.22 OHM 0.10W 5% CHIP 0805 POT, 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	I 8* J 8* I 10* L 1 M 10*
R31 A R33 A R100 1 R101 A R102 A R103 A R104 A R105 A R106 A R107 A	A11368-10031 A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021	100K 0.1W 1% CHIP 0805 0.22 OHM 0.10W 5% CHIP 0805 POT, 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	J 8* I 10* L 1 M 10*
R33 A R100 1 R101 A R102 A R103 A R104 A R105 A R106 A R107 A	A11371-R221 02595-3 A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11371-6814	0.22 OHM 0.10W 5% CHIP 0805 POT, 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	I 10* L 1 M 10*
R100 1 R101 A R102 A R103 A R104 A R105 A R106 A	02595-3 411368-10011 411368-39231 411368-49901 411368-10021	POT, 5K LIN 21 DNT 12MM HORIZ 1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	L 1 M 10*
R121 A R122 A R123 A R124 A R125 A R126 A	A11368-10011 A11368-39231 A11368-49901 A11368-10021 A11371-6814	1K 0.10W 1% CHIP 0805 392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	M 10*
R102 A R103 A R104 A R105 A R106 A	A11368-39231 A11368-49901 A11368-10021 A11371-6814	392K 0.10W 1% CHIP 0805 499 OHM 0.10W 1% CHIP 0805	
R103 A R104 A R105 A R106 A	A11368-49901 A11368-10021 A11371-6814	499 OHM 0.10W 1% CHIP 0805	N 9*
R104 A R105 A R106 A R107 A	A11368-10021 A11371-6814		1 1 2
R105 A R106 A R107 A	111371-6814	And A community and a second	N 9*
R106 A R107 A		10K 1/10W 1% CHIP 0805	N 9*
R107 A	11368-10011	680 OHM 0.50W 5% CHIP	J 1*
		1K 0.10W 1% CHIP 0805	м 9*
R128 A	11368-10021	10K 1/10W 1% CHIP 0805	L 10*
	11368-10021	10K 1/10W 1% CHIP 0805	∟ 10*
R129 A	11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110 A	11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111 A	11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112 A	10265-19121	19.1K 0.25W 1% MF	L 9
R113 A	11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
		8.25K 0.1W 1% CHIP 0805	∟ 10*
		68.1K 0.10W 1% CHIP	L 1Ø*
		226 OHM 0.10W 1% CHIP 0805	M 9*
	11371-3341	330K 0.10W 5% CHIP 0805	M 9*
		10.2K 0.10W 1% CHIP 0805	M 10
		33K Ø.25W 5% CHIP 121Ø	M 9*
		90.9K 0.10W 1% CHIP 0805	# B M
		10K 1/10W 1% CHIP 0805	M 10
		158K 0.10W 1% CHIP 0805	N 9*
		100K 0.1W 1% CHIP 0805	M 9*
		158K 0.10W 1% CHIP 0805	M 9*
		100K 0.1W 1% CHIP 0805	N 9*
		49.9K Ø.1W 1% CHIP Ø8Ø5	M 9*
	11371-6821	6.8K Ø.10W 5% CHIP Ø8Ø5	N 9*
	11371-6814	680 OHM 0.50W 5% CHIP	J 1*
	11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R13Ø		OPEN	0 8*
R131		OPEN	0.8*
	11371-2223	2.2K Ø.25W 5% CHIP 121Ø	H 6*
Z A	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Z. ZN 0. ZJN J/ CHI 1210	110

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SCALE NONE PROJ NO. MD390D0 SHEET 13 OF 24

		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 DHM 0.125W 1% 1206 T/R	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N B*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	0 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	0 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R149	A11368-60432	604K OHM 0.125W 1% CHIP 1206	N 9*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R151	A11368-20021	20K 1/10W 1% CHIP 0805	N 9*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM Ø.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 Ø.25W 5% CHIP	I 5*
R167	103199-1	Ø.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	Ø.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/B	F 6*
R17Ø	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 6*
R174		604K OHM 0.125W 1% CHIP 1206	G 8*
R175		5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176		10K 1/10W 1% CHIP 0805	G 8*
R177		10K 1/10W 1% CHIP 0805	H 8*
R178		90.9K 0.10W 1% CHIP 0805	N 9*
R179		100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231		G 8*
R181	A11366-39231 A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
			F 8*
R182		10K 1/10W 1% CHIP 0805	F 8*
R183		100K 0.1W 1% CHIP 0805	F 9*
R184	711200-70073	20K 0.25W 1% CHIP 1210	— <u> </u>

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Α			127452-4

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		PARTS LIST	
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 101*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10 *
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 101*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10 *
R19Ø	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	м 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	м 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	м 10
R199	A11371-@R01	0.0 OHM 0.1W CHIP 0805	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201		1K 0.10W 1% CHIP 0805	K 10*
R202		392K 0.10W 1% CHIP 0805	L 9*
R203		499 OHM 0.10W 1% CHIP 0805	L 9*
R204		10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *
R206		1K 0.10W 1% CHIP 0805	J 9*
R209		19.1K 0.125W 1% CHIP 1206	K 9*
R210		1K 0.10W 1% CHIP 0805	J 9*
R211		10K 1/10W 1% CHIP 0805	J 9*
R212		19.1K 0.25W 1% MF	J 9
R213		5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214		8.25K 0.1W 1% CHIP 0805	J 10*
R215		68.1K 0.10W 1% CHIP	J 10*
R216		226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218		10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R22Ø		90.9K 0.10W 1% CHIP 0805	K 9*
R221		10K 1/10W 1% CHIP 0805	K 10
R222		158K 0.10W 1% CHIP 0805	K 9*
R223		100K 0.1W 1% CHIP 0805	K 9*
R224		158K 0.10W 1% CHIP 0805	K 9*
R225		100K 0.1W 1% CHIP 0805	L 9*
R226		49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6621	680 OHM 0.50W 5% CHIP	M 1 *
R229	A11371-8811	820 OHM 0.10W 5% CHIP	K 7*
R230	MITS/I 02/I	OPEN	L 7*
R230 R231		OPEN	L 7*
R231	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
		750 OHM 0.10W 5% CHIP	H 3*
R233	A11371-7511	730 ONN W. 10W 37 CHIF	

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		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM 0.125W 1% 1206 T/R	К В*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R24Ø	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75RØ3	75 OHM 0.25W 1% CHIP 1210	К 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R249	A11368-60432	604K OHM 0.125W 1% CHIP 1206	K 9*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R251	A11368-20021	20K 1/10W 1% CHIP 0805	K 9*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	к э*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	м э*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	*E C
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 Ø.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R27Ø	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	Ø.4 OHM 1W 5% 2512 T/R	н э*
R274		604K OHM 0.125W 1% CHIP 1206	E 8*
R275		5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276		10K 1/10W 1% CHIP 0805	E B*
R277	A11368-10021		E 8*
R278	A11368-90921		L 9*
R279	A11368-10031		E 7*
R28Ø	A11368-39231	392K Ø.10W 1% CHIP Ø8Ø5	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1 *
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023		F 9*
R285	A11368-10021		F 8*
R286	A11368-10021		L 10*
	711200 LEBAT	TOOK O. IN IN CITE DOOD	

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	r	PARTS LIST	T
REF DES		DESCRIPTION	MAP LOC.
R287		158K 0.10W 1% CHIP 0805	K 101*
R288		158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031		K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	*E N
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	*E N
R292		604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R299	A11371-0R01	0.0 OHM 0.1W CHIP 0805	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	м 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	м 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R329	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	NΒ
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	NΒ
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-ØRØ1	0.0 OHM 0.1W CHIP 0805	G 8
R400	103199-1	Ø.4 OHM 1W 5% 2512 T/R	р Э∗
R401	103199-1	Ø.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	Ø.4 OHM 1W 5% 2512 T/R	К 3*
R403	103199-1	Ø.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	Ø.4 OHM 1W 5% 2512 T/R	*E M
R405	103199-1	Ø.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	Ø.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	Ø.4 DHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	Ø.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	Ø.4 OHM 1W 5% 2512 T/R	H 4*
	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
日41フ		per i erum in wie welfe iffil	
R412 R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*

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A	DWG NO.	1274	152-4				
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		PARTS LIST	
REF DES	C. P. N.	DESCRIPTION	MAP LOC.
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	КВ
R419		OPEN	K 10 *
R42Ø	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422		100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R01	0.0 OHM 0.1W CHIP 0805	F B
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R5Ø1		10K 1/10W 1% CHIP 0805	A 2
R502		10K 1/10W 1% CHIP 0805	B 2
R503		10K 1/10W 1% CHIP 0805	B 2
R504		2K 1/10W 1% CHIP 0805	A 2
R506		2K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601		10K 1/10W 1% CHIP 0805	A 1
R602		10K 1/10W 1% CHIP 0805	A 2
R603		10K 1/10W 1% CHIP 0805	A 2
R624		2K 1/10W 1% CHIP 0805	A 1
R605	A11371-1501	15 OHM 0.10W 5% CHIP	СЗ
R626		2K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608	ATTOTT GZZS	OPEN	
R609	A11371-1501	15 OHM 0.10W 5% CHIP	СЗ
R61Ø	A11371-15Ø1	15 OHM 0.10W 5% CHIP	B 1
S1	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38			K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
	C 9896-9	TEST POINT LOOP	
⊔1 ⊔1 X	C 5095-2 C 9918-1	POS. 15 VOLT REG. TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OF AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR. QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
11176	127683-1	ASM, CE THERMAL SENSOR	N 6
	102723-2	OPTO CELL ON=500 OHM	K 9
U200			_
U106 U200 U201 U202	C 9012-3 C 9038-8	MC33079D QUAD LO NOISE OP AMP COMPARATOR, QUAD LM339D SD-14	J 100 K 9

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A	DWG N	ο.	12			
SCAL	E NONE		PROJ	NO.	MD390D0	SHEET

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		PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAE	LOC.	
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP		E 7	
	127683-1	ASM, CE THERMAL SENSOR		N 3	
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP		A 2	
WP1		WIRE. 16 RED FAST X 5 X TERM		A 10	
WP2		WIRE. 16 BLK/WHT TAB X 5 X T		A 9	
WP3		WIRE. 16 BLU FAST X 5 X TERM	1	A 9	
WP4	101031-1	.250 FASTON. AUTO INSERTABLE	1	D 7	
WP5	101031-1	.250 FASTON, AUTO INSERTABLE		D 4	
WP6		WIRE. 22 WHT 3/16X14 X FAST	+	J B	
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	+	D 8	
Z1	101031	OPEN	+	E 9	
Z100	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	+	M 10	
Z100X	C 6419-3	SHUNT025" SO POST 2 POS	+	M 10	
Z200	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	+	K 10	
Z200X	C 6419-3		+	K 10	
	127450-1	SHUNT025" SQ POST 2 POS PWB, CE1000/CE2000 MAIN/INPU	CEE	COMP	
1		· · · · · · · · · · · · · · · · · · ·			
2	101016-1	LBL, BARCODE,	+	COMP	
3	125242-1	CAP, .625ID X 1" VINYL		COMP	
4	1 26825-1	SILICONE, CLEAR 30Z SYRINGE		COMP	
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT		COMP	
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"		COMP	
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH		СОМР	
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH		COMP	
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH		COMP	
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE	COMP	MAF

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SIZE	DWG	NO.					
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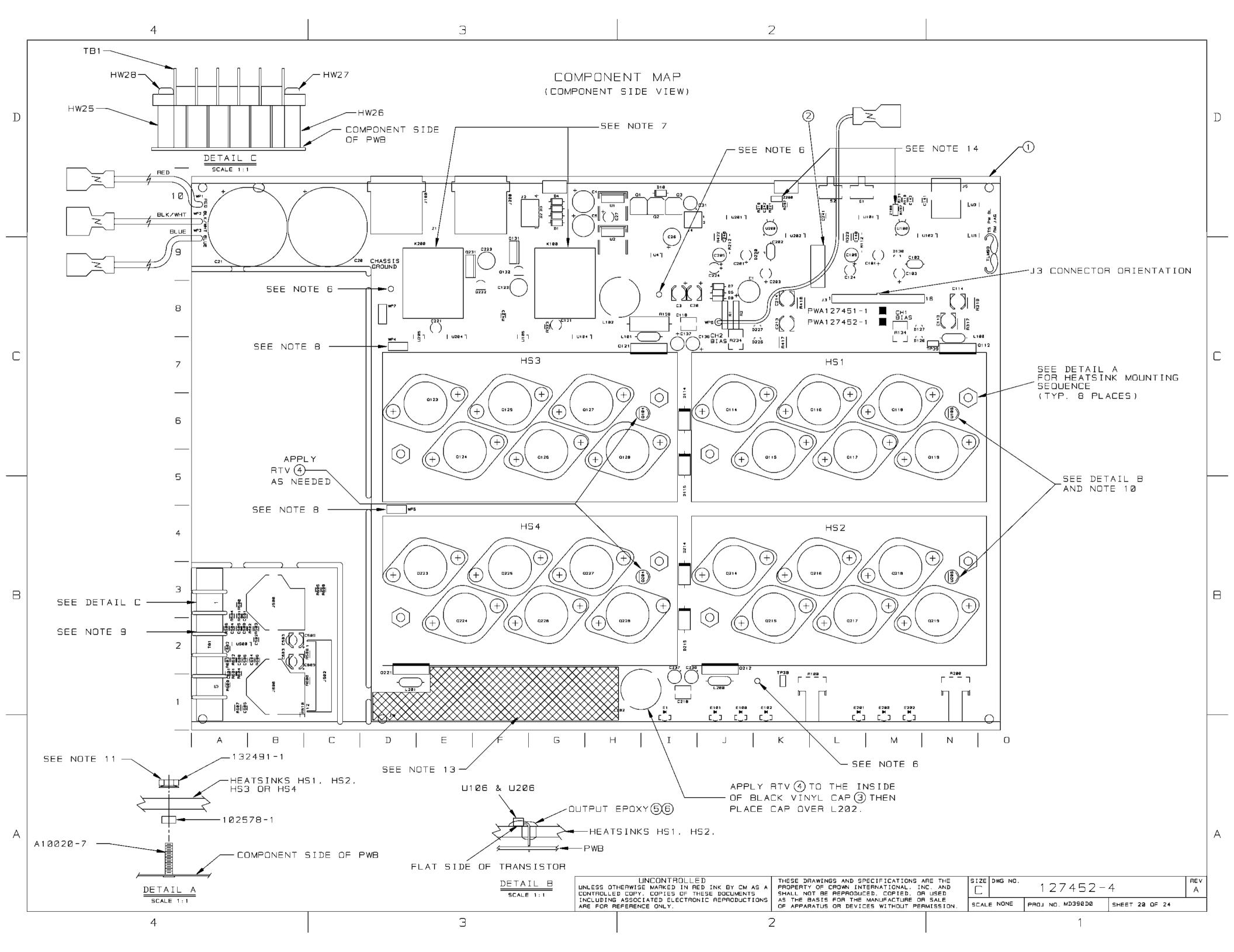
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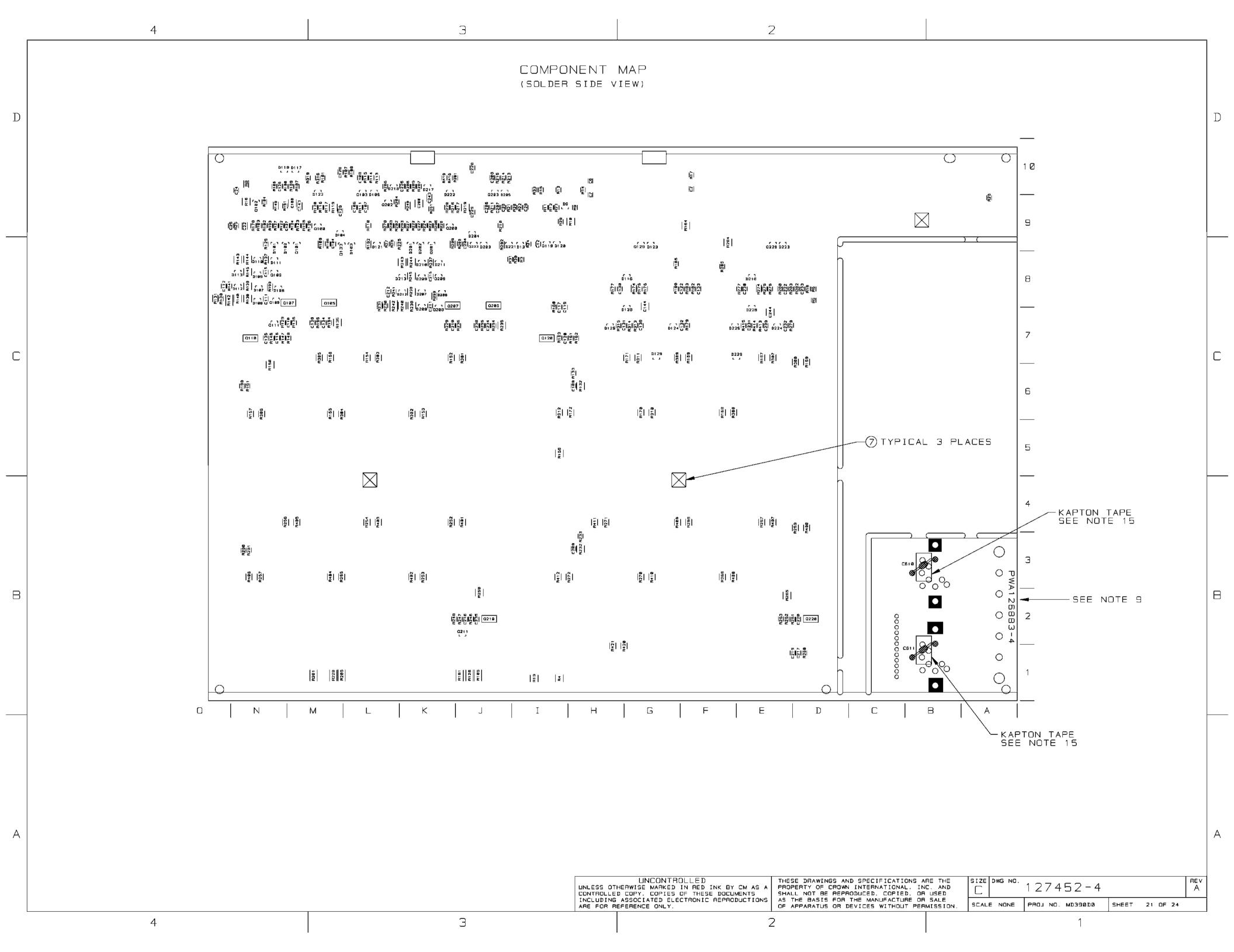
PROJ NO. MD390D0



## **Component Map**

for use with Main PWA 127452-4







## 9 Field Modifications

This section details field modifications authorized and recommended by Crown which should be performed on affected units. **Only the specific models identified in each case should be modified.** If you are in doubt whether the amplifier you are servicing needs any of the modifications described in this section, contact the Crown Technical Support Group.

#### PLEASE HEED ALL CAUTIONS AND WARNINGS.

Crown Authorized Warranty Centers should refer to their "*Tech Notes*" library for up-to-date field modification instructions.

NOTE: THE INFORMATION IN THIS MANUAL IS INTENDED FOR USE BY AN EXPERIENCED TECHNICIAN ONLY!

### 9.1 Fan Circuit Ballast Resistors

**Applicability:** CE1000, CE2000 Models, with –6 modules, built in January 1998.

When servicing a CE1000 or CE2000 amplifier, the resistors R14 and R15 should be checked for the correct value part. These resistors should be a 0.2 ohm (A11371-0R21), but it is possible they may be a zero ohm jumper due to a manufacturing error. These resistors are part of the fan circuitry. They are the ballast resistors for the darlington transistors Q1 and Q2.

The amplifier will not exhibit any abnormal performance due to this change in resistors. However, if you have a CE amplifier on the bench, verify that R14 and R15 have the proper value resistor. If it has the zero ohm jumper, replace it with the above specified 0.2 ohm resistor.

## 9.2 Timing/Mute Capacitors

**Applicability:** CE-1000 and UT-1010 with #102138-8 modules, and CE-2000 and UT-2020 with #102140-8 modules.

Some early model CE amplifiers may not come out of standby upon start up. When this happens, the fault light will simply continue to flash on and off indicating that there is some fault condition on the amplifier. It is likely that the problem may be the formation of con-

densation under the timing capacitors & resistors, C121/221 & R174/274 and/or the muting capacitors & resistors C124/224 & R192/292. Additionally, resistors R6 and R18 need to be upgraded to a new value, and resistor R29 should be removed.

This problem has only occured on 102138-8(CE1000) and 102140-8(CE2000) boards and earlier, (before November 1998). Newer revision main modules (i.e. 102138-9(CE1000) / 102140-9(CE2000) and later) will not have this problem because the timing circuit was changed to be lower impedance and utilize an electrolytic capacitor for timing.

#### Procedure:

- 1. Upgrade R6 to 9.31 kohm 1% (CPN A11368-93111) and R18 to 7.15 kohm 1% (CPN A11368-71511).
- 2. De-solder and remove R29. This circuit location will remain open.
- 3. De-solder and remove the muting capacitors and resistors.
- 4. Thoroughly remove all residual adhesive from under the removed components. Caution: Any remaining adhesive may act to absorb moisture and repeat the above-described symptoms.
- 5. Clean the affected area. This should be done using only a soft bristle brush and a high grade IPA isopropyl alcohol. Using anything else can result in damage to the circuit board and components. After the module is clean, it must be allowed sufficient time to dry out. If necessary, a hair dryer (on low heat) or air gun (low psi) may be used to assist in the drying process.
- 6. Replace removed muting capacitors and resistors with new components: C121/221 and C124/224, CPN C 6802-0; R174/274 and R192/292 CPN A11371-4751.

If there are further questions, please contact the Technical Support Group at 1-800-342-6939



## **CAUTION!**

The main module MUST be cleaned! To clean the board, use only a soft bristle brush and high grade IPA isopropyl alcohol. Using anything else can damage the components.

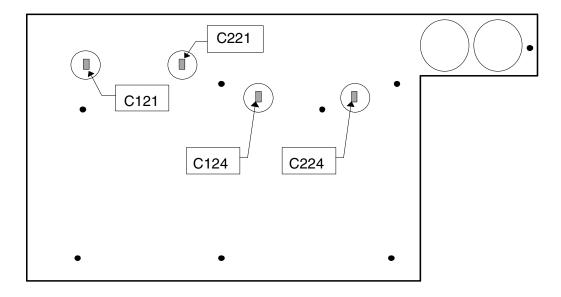


Figure 9.1. Bottom Side of Main Module



## 9.3 Modification to correct oscillation/ noise problem

**Applicability:** CE-1000 and UT-1010 with #102138-8 module, and CE-2000 and UT-2020 with #102140-8 module

A change was made on main boards 102138-8 (CE1000) and 102140-8 (CE2000) which has been found to cause the amplifier to exibit an oscillation or noise in the output under certain specific operating conditions. This problem applies only to new amplifiers with -8 main boards, or older amplifiers into which a new -8 main board is being installed.

A modification has been designed to provide better ground isolation on the input module, preventing the problem from occuring. All SST input modules (including the standard input module) used in the affected amplifiers should be modified to prevent oscillations or noise from occuring. Perform the modification as follows:

#### Procedure:

- 1. Dis-attach AC, input and output connections from the amplifier.
- 2. Loosen and remove the screws holding the SST input module in place, and remove the module.
- 3. Remove the screws holding the front plate of the module in place, and remove the front the front plate.
- 4. De-solder capacitors C606 and C607 on standard SST input module, or capacitors C31 and C32 on SST-SBSC module. These are 0.1uF surface-mount capacitors located in the bottom right corner of the circuit board with the component side of the board facing you on the standard SST module (see Figure 9.2,) and directly above J2 on the rear side of the circuit board on the SST-SBSC module (see Figure 9.3.)
- 5. Replace the capacitiors with 15 ohm, 0.1W surface mount resistors, Crown part number A11371-1501.
- 6. Reassemble the module and re-install in the amplifier.

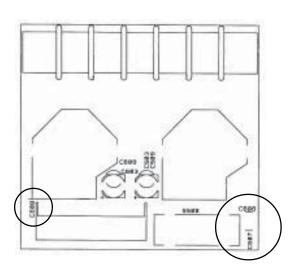


Figure 9.2. Standard SST module, component side

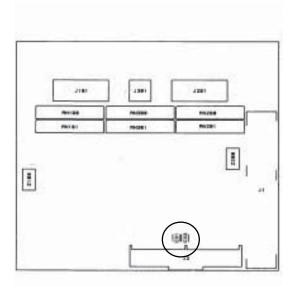


Figure 9.3. SBSC module, rear view



### 9.4 Bootstrap Resistor Modification

**Applicability:** CE-1000, CE-2000, UT-1010, UT-2020, S3 and M-240 amplifiers containing the following main modules: CPN 102139-5, CPN 102140-5, CPN 102140-6, CPN 102140-8, CPN 102140-9 and CPN 127354-1. **This modification is not necessary on 127451-4 and 127452-4 PWAs.** 

**Diagnosis:** Perform this modification on all listed boards for any amplifiers retained for servicing. This modification is required to create a voltage-divider network to divert excess wattage from key main board components. Check first to verify if a previous modification has already been performed by a Crown authorized servicer. Previously installed bootstrap resistor may be located on main board top next to C1 capacitor (original 0156 procedure), or may be spliced into the bootstrap supply wire (*Tech Note* 0156 REV A procedure).

Part Description: 1000-Ohm, 5-Watt resistor (CPN 127438-1), Clip (CPN 127439-1)

#### Procedure:

1. Locate the bootstrap supply wire. This white wire runs from the bridge rectifier to WP6 on the main board.

(15 cm) from the end connected to the bridge rectifier. This will be approximately 8 inches (20 cm) from the end connected to the main board at WP6.

2. Cut bootstrap supply wire approximately 6 inches

- Prep resistor. Hook both leads as shown in Figure
   .
- 4. Strip and prep both cut ends of the bootstrap supply wire. Slip a 1-inch length of 4-mm shrink tubing over the cut end of each wire. Slide back to expose cut end. Hook each wire in preparation for soldering. See Figure 9.4.
- 5. Solder each prepared end of the white bootstrap supply wire to the resistor.
- 6. Slide shrink tubing over solder joints and set in place using a heat gun. See Figure 9.5.
- 7. Slide supplied clip over resistor and mount in amplifier on the corner of transformer closest to the power supply capacitors using existing bolt. See Figure 9.6.

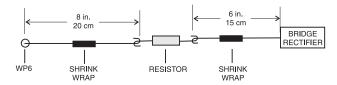


Figure 9.4 Boostrap Resistor Assembly

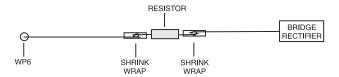


Figure 9.5 Bootstrap Resistor Installation

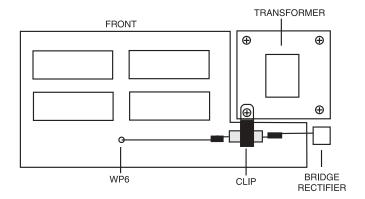


Figure 9.6 Bootstrap Resistor Installed



## 9.5 Channel 1 Output to Channel 2 **Speakon Modification**

**Applicability:** CE-1000, CE-2000, UT-1010, UT-2020, S2, S3, M-120 and M-240 amplifiers.

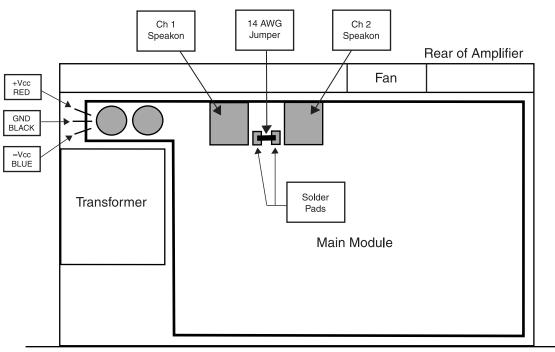
Purpose of Modification: By default, the Channel 1 Speakon connector has Channel 1 signal present on Pins 1+ and 1-, and Channel 2 signal present on Pins 2+ and 2-. The Channel 2 Speakon connector has Channel 2 signal present on Pins 1+ and 1-. Perform this modification to allow Channel 1 output signal to be present on Pins 2+ and 2- on the Channel 2 Speakon connector. Amplifiers come from the factory without this jumper installed, so normally Channel 1 output is not available from the Channel 2 Speakon.

#### Procedure:

1. Solder a 14 AWG wire across the two solder pads indicated in Figure 9.7 below. This will route the Channel 1 output signal to the Channel 2 Speakon.

Caution: Before performing this modification, be sure that:

- Amplifier power is turned off and AC cord unplugged.
- All input and output connectors have been removed.
- Supply capacitors have been discharged as per the procedure detailed in Section 2.2 Cautions and Warnings, page 2-1.
- Because this amplifier contains surface mount components, all ESD safety precautions should be followed.



Front of Amplifier

Figure 9.7 Channel 2 Speakon Jumper



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# **10 Schematics**

#### **10.1 General Information**

The schematics provided are representative only. There may be slight variations between amplifier to amplifier. These schematics are intended to be used for troubleshooting purposes only. Please refer to Section 7, Module and Schematic Information, for assistance in selecting the correct schematic to reference for your amplifier.

