

# Service Manual



## **TSG 1001 Programmable TV Generator Serial Number B040000 and Above**

**070-8625-02**

### **Warning**

The servicing instructions are for use by qualified personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries prior to performing service.



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# General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. To avoid potential hazards, use this product only as specified.

*Only qualified personnel should perform service procedures.*

## To Avoid Fire or Personal Injury

**Use Proper Power Cord.** Use only the power cord specified for this product and certified for the country of use.

**Ground the Product.** This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

**Observe All Terminal Ratings.** To avoid fire or shock hazard, observe all ratings and markings on the product. Consult the product manual for further ratings information before making connections to the product.

Do not apply a potential to any terminal, including the common terminal, that exceeds the maximum rating of that terminal.

**Do Not Operate Without Covers.** Do not operate this product with covers or panels removed.

**Use Proper Fuse.** Use only the fuse type and rating specified for this product.

**Avoid Exposed Circuitry.** Do not touch exposed connections and components when power is present.

**Wear Eye Protection.** Wear eye protection if exposure to high-intensity rays or laser radiation exists.

**Do Not Operate With Suspected Failures.** If you suspect there is damage to this product, have it inspected by qualified service personnel.

**Do Not Operate in Wet/Damp Conditions.**

**Do Not Operate in an Explosive Atmosphere.**

**Keep Product Surfaces Clean and Dry.**

**Provide Proper Ventilation.** Refer to the manual's installation instructions for details on installing the product so it has proper ventilation.

## Symbols and Terms

**Terms in this Manual.** These terms may appear in this manual:



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**WARNING.** Warning statements identify conditions or practices that could result in injury or loss of life.

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**CAUTION.** Caution statements identify conditions or practices that could result in damage to this product or other property.

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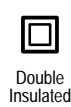
**Terms on the Product.** These terms may appear on the product:

**DANGER** indicates an injury hazard immediately accessible as you read the marking.

**WARNING** indicates an injury hazard not immediately accessible as you read the marking.

**CAUTION** indicates a hazard to property including the product.

**Symbols on the Product.** The following symbols may appear on the product:



## Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* and the *General Safety Summary* before performing any service procedures.

**Do Not Service Alone.** Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

**Disconnect Power.** To avoid electric shock, disconnect the mains power by means of the power cord or, if provided, the power switch.

**Use Care When Servicing With Power On.** Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

## Contacting Tektronix

Product Support	<p>For application-oriented questions about a Tektronix measurement product, call toll free in North America: 1-800-TEK-WIDE (1-800-835-9433 ext. 2400) 6:00 a.m. – 5:00 p.m. Pacific time</p> <p>Or contact us by e-mail: tm_app_supp@tek.com</p> <p>For product support outside of North America, contact your local Tektronix distributor or sales office.</p>
Service Support	<p>Contact your local Tektronix distributor or sales office. Or visit our web site for a listing of worldwide service locations.</p> <p><a href="http://www.tektronix.com">http://www.tektronix.com</a></p>
For other information	<p>In North America: 1-800-TEK-WIDE (1-800-835-9433) An operator will direct your call.</p>
To write us	<p>Tektronix, Inc. P.O. Box 1000 Wilsonville, OR 97070-1000</p>





# Section 1: Specifications

**Table 1-1: General test signal characteristics**

Characteristic	Performance requirement	Supplemental information
Amplitude:		
accuracy	±1%	measured at 700 mV
channel match	±0.5%	channels 2 and 3 relative to channel 1
Frequency response	±1% to 20 MHz ±2% to 30 MHz	
Group delay distortion	≤3 ns to 20 MHz ≤5 ns to 25 MHz	
Channel-to-channel delay	±1 ns	channels 2 and 3 relative to channel 1
Field tilt	≤0.5%	
Line tilt	≤0.5%	
Sine squared pulses	HADs accurate within ±2 ns	
Pulse-to-bar ratio	1:1 ±1%	using 2T30 pulse and bar
Blanking level	0 V DC ±50 mV	
Spurious signals	<5 mV to 30 MHz <7 mV from 30 MHz to 100 MHz	
Output impedance	75Ω	
Return loss	≥35 dB down to 30 MHz	

**NOTE.** Specific characteristics (amplitudes, timings) of individual test signals are inherent in the SDP1000 definition of each signal. A graphic representation of each test signal waveform and the values of the defining parameters may be seen with the ED1000 waveform editor. Please see the SDP1000 manual for more information.



**Table 1–2: Tri-level sync outputs**

Characteristic	Performance requirement	Supplemental information
Blanking level	0 V $\pm$ 50 mV	
Spurious signals	<5 mV to 30 MHz <7 mV, 30 MHz to 100 MHz	
Output impedance	75 $\Omega$	

**Table 1–3: Digital outputs**

Characteristic	Information
Sampling frequency	72.000000, 74.25, or 74.175824 MHz (determined by active video format; see Table 1–8, on page 1–4), 1.0 ppm stability typical
Digital coding	10 bit linear PCM
Output format	balanced ECL (10KH series), 10 data pair, 1 clock pair
Connector	25 pin D female

**Table 1–4: Clock Input requirements**

Characteristic	Performance requirement	Supplemental information
Clock Input (external clock mode)		10KH differential ECL input.
Levels		high level: $-1.18\text{V min}$ $-0.98\text{V max}$  low level: $-1.72\text{V min}$ $-1.52\text{V max}$
Frequency	72.0, 74.25, and 74.175824 MHz	Measured at the Clock In connector from a reverse terminated source. Typically 8.0 to 78.0 MHz in external clock mode; 69.0–78.0 MHz, encoded mode.
Symmetry		Clock pulses must be $\geq 6$ ns in both high and low states.
Noise		normal mode: $> 40$ dB common mode: 500 mV p–p

Table 1-4: Clock Input requirements (Cont.)

Characteristic	Performance requirement	Supplemental information
Frame Input (2 wire mode)  Levels		10KH differential ECL input.  high level: -1.18V min -0.98V max  low level: -1.72V min -1.52V max  Measured at the Frame In connector from a reverse-terminated source.

Table 1-5: Power Supply

Characteristic	Information
Line voltage range 110 VAC 220 VAC	92 – 132 VAC 180 – 250 VAC
Fuse data 110 V setting 220 V setting	4 amp medium blow 2 amp medium blow (internal fuse is 2 amp fast)
Power consumption	≤250 VA maximum ≤180 W typical
Line frequency	48 to 62 Hz

Table 1-6: Physical characteristics

Characteristic	Information
Dimensions:	
Height	3.48 inches (8.84 cm)
Width	19.0 inches (48.26 cm)
Length	22.0 inches (55.88 cm)
Weight	25 lbs (10.4 kg)

**Table 1–7: Environmental characteristics**

Characteristic	Information
Temperature: operating	0° to 50°C (32° to 122°F)
non–operating	–40° to 65°C (–40° to 149°F)

**Table 1–8: TSG 1001/SDP1000 formats**

Scanning Structure lines per frame/field rate/fields:frame	Sampling frequency (MHz)	Pre-defined formats
525/59.94 Hz/1:1	72.00	"525/59.94/1:1 GBR" "525/59.94/1:1 YPBPR"
525/59.94 Hz/2:1	72.00	"525/59.94/2:1 BETACAM" "525/59.94/2:1 GBR" "525/59.94/2:1 MII" "525/59.94/2:1 YPBPR" "NTSC"
	13.5	"525/59.94/2:1 D1"*
	14.318182	"D2 NTSC"*
	18	"525/59.94/2:1 D1 16:9"*
625/50 Hz/1:1	72.00	"625/50/1:1 GBR" "625/50/1:1 YPBPR"
625/50 Hz/2:1	13.5	"625/50/2:1 D1"*
	72.00	"625/50/2:1 GBR" "625/50/2:1 YPBPR" "625/50/2:1 YUV(PAL)"**
750/59.94/1:1	74.175824	"750/59.94/1:1 GBR" "750/59.94/1:1 YPBPR"
787-788/59.94 Hz/1:1*	75.335664	"787/59.94/1:1 GBR"* "787/59.94/1:1 YPBPR"*
1050/59.94 Hz/1:1	72.00	"1050/59.94/1:1 GBR" "1050/59.94/1:1 YPBPR"
1050/59.94 Hz/2:1	72.00	"1050/59.94/2:1 GBR" "1050/59.94/2:1 YPBPR"
1125/59.94/1:1	74.175824	"1125/59.94/1:1 GBR" "1125/59.94/1:1 YPBPR"
1125/59.94/2:1	74.175824	"1125/59.94/2:1 GBR" "1125/59.94/2:1 YPBPR"
1125/60 Hz/2:1	74.25	"1125/60/2:1 GBR" "1125/60/2:1 YPBPR"

Table 1-8: TSG 1001/SDP1000 formats (Cont.)

Scanning Structure lines per frame/field rate/fields:frame	Sampling frequency (MHz)	Pre-defined formats
1250/50 Hz/1:1	72.00	"1250/50/1:1 GBR" "1250/50/1:1 YPBPR"
1250/50 Hz/2:1	72.00	"1250/50/2:1 GBR" "1250/50/2:1 YPBPR"
User-defined	72.0, 74.25, 74.175824	"USER GBR" "USER YPBPR"

\* These formats require changing an oscillator crystal or using an external clock. Please contact a Tektronix representative for more information.

\*\* This format requires a Tektronix PE 1000 PAL Encoder.

Table 1-9: Certifications and compliances

EC Declaration of Conformity – EMC	Meets intent of Directive 89/336/EEC for Electromagnetic Compatibility. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities: EN 50081-1 Emissions: EN 55011 Class A Radiated and Conducted Emissions EN 50082-1 Immunity: IEC 801-2 Electrostatic Discharge Immunity IEC 801-3 RF Electromagnetic Field Immunity IEC 801-4 Electrical Fast Transient/Burst Immunity
Australia/New Zealand Declaration of Conformity – EMC	Complies with EMC provision of Radiocommunications Act per the following standard(s): AS/NZS 2064.1/2 Industrial, Scientific, and Medical Equipment: 1992 AS/NZS 3548 Information Technology Equipment: 1995
FCC Compliance	Emissions comply with FCC Code of Federal Regulations 47, Part 15, Subpart B, Class A Limits
EC Declaration of Conformity – Low Voltage	Compliance was demonstrated to the following specification as listed in the Official Journal of the European Communities: Low Voltage Directive 73/23/EEC EN 61010-1:1993 Safety requirements for electrical equipment for measurement, control, and laboratory use
Approvals	UL1244 - Second Edition - Standard for Electrical and Electronic Measuring and Testing Equipment. CSA - Electrical Bulletin C22.2 No. 231.
Installation Category Descriptions	Terminals on this product may have different installation category designations. The installation categories are: CAT III Distribution-level mains (usually permanently connected). Equipment at this level is typically in a fixed industrial location

**Table 1-9: Certifications and compliances (cont.)**

	CAT II	Local-level mains (wall sockets). Equipment at this level includes appliances, portable tools, and similar products. Equipment is usually cord-connected
	CAT I	Secondary (signal level) or battery operated circuits of electronic equipment
Safety Standards		
U.S. Nationally Recognized Testing Laboratory Listing	UL1244	Standard for electrical and electronic measuring and test equipment.
Canadian Certification	CAN/CSA C22.2 No. 231	CSA safety requirements for electrical and electronic measuring and test equipment.
Additional Compliance	IEC61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use.
Safety Certification Compliance		
Temperature, operating	+5 to +40° C	
Altitude (maximum operating)	2000 meters	
Equipment Type	Test and measuring	
Safety Class	Class 1 (as defined in IEC 1010-1, Annex H) – grounded product	
Overvoltage Category	Overvoltage Category II (as defined in IEC 1010-1, Annex J)	
Pollution Degree	Pollution Degree 2 (as defined in IEC 1010-1). Note: Rated for indoor use only.	



# Section 2

## Operating Information

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This section duplicates material contained in the TSG 1001 User manual (Tektronix p/n 070-7908-00). The information is presented here for the convenience of service personnel. Please check the User manual any time you need more detail about any topic. **Complete installation instructions begin on page 2-9.**

### Using the TSG 1001

#### Downloading test signals into RAM

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A mixed-format signal set is loaded into RAM when the TSG 1001 is assembled. This grouping of signals is used for testing and demonstration. In most cases, the factory signals should be replaced with another signal set supplied with the SDP1000 software or with a new set created by the user. The techniques for creating and downloading signals and signal sets are detailed in the SDP1000 manual; the basic procedures for downloading signal data to the TSG 1001 are summarized below. Note that downloading new information into RAM will overwrite the previous contents of memory.

##### Downloading a signal set

The SDP1000 software includes signal set menu and download files in every supported format.<sup>1</sup> COM1000, the SDP1000 communications utility, is used to transfer the download files from SDP1000 signal libraries into TSG RAM.<sup>2</sup> To download a signal set:

1. Install the SDP1000 software on an IBM-compatible PC running MS- or PC-DOS 3.0 or higher.
2. Connect the PC to the TSG 1001 through either the parallel (recommended) or serial port. Run COM1000, the SDP1000 communications utility, and set the communications port parameters.
3. Use COM1000 to download the appropriate signal set file. When the transfer is complete, the RAM board signal set will be active and a test signal from the set may be output by the TSG 1001. To change the output, see *Outputting test signals from RAM*, and *Outputting zone plate test signals*, on the next page.

##### Downloading a single test signal

1. Install the SDP1000 software on an IBM-compatible PC running MS- or PC-DOS 3.0 or higher.
2. Connect the PC to the TSG 1001 through either the parallel (recommended) or serial port. Run COM1000 to set the communications parameters.

---

<sup>1</sup> A **format** is a unique combination of picture scanning structure and chroma/luma encoding: **1050/59.94/2:1 GBR** is a format.

<sup>2</sup> **Libraries** are subdirectories on the PC hard disk that hold files defining waveforms, signals, and signal sets.

3. Run ED1000, the SDP1000 waveform editor. Open the appropriate waveform equation file and display the waveform of interest, or create a new waveform description.
4. When the desired waveform is displayed on the ED1000 screen, press the F3 key of the PC. The waveform will be sent to TSG RAM. When the data transfer is complete, the signal will be output by the TSG 1001. The TSG will also be able to generate zone plate patterns in the format of the downloaded signal.

## Outputting test signals from RAM

---

After a signal set has been downloaded into the TSG 1001 RAM board, test signals can be selected and output with the following procedure.

1. Select the desired video format with the FORMATS button. Available formats may be selected by repeatedly pressing the button, or by turning the selector knob. The new format will be active as soon as its name appears on the display.
2. Select a test signal with one of the signal-select buttons. If no signals are defined for the button category, the message “No Signals Defined” will be displayed. If more than one test signal has been defined for the category, scroll through the remaining signals by pressing the signal-select button repeatedly or by turning the knob.

The full list of test signals available under the active button can be displayed on the attached video monitor (in place of a test signal) by pressing the SIGNAL MENU button. Pressing that button a second time will return the generator to normal operation.

3. To change to another type of test signal, press a different signal-select button.

## Outputting zone plate test signals

---

To select and modify a zone plate pattern, follow these steps:

1. Select the Zone Plate Signal Set with the SIGNAL SETS button. Press the button repeatedly (twice, usually) until the readout resembles Fig. 2–1.



Fig. 2–1 TSG 1001 readout indicating that the zone plate signal set is active.

2. Select the desired video format with the FORMATS button.
3. Press one of the first six signal-select buttons—the type of zone plate pattern available through each button is shown graphically below the buttons. The name of the pattern will appear on the TSG 1001 display panel.
4. Turn the selector knob to modify a fundamental characteristic, or “parameter,” of the pattern. To return to the original value and pattern, press the zone plate signal-select button again. Other parameters may be changed through the SWEEP/PARAMETERS button. See the User manual for a full discussion of zone plate parameters.



5. Several more pre-defined patterns are available through the seventh button, labeled MULTIPULSE/USER ZONE PLATES. To select a user zone plate, press the button and then rotate the selector knob until the name of the desired pattern appears on the TSG readout. Press the SWEEP/PARAMETERS button to modify these “standard” user zone plates.
6. Save a modified zone plate through the MULTIBURST/SAVE ZONE PLATES button. Press the button, rotate the selector knob to choose a storage location, and then press the SAVE ZONE PLATES button a second time. Follow the directions in the TSG 1001 User manual to enter a name for the pattern, or press the SAVE ZONE PLATES button a third time to accept the default name and save the pattern.
7. Recall a user zone plate later with the MULTIPULSE/USER ZONE PLATES button and the selector knob as in step 5 above.

## Utilities

---

The TSG 1001 UTILITIES button provides access to:

- Software Version
- Test Signal Revision and Date
- Beeper enable/disable
- Internal/External Reference (clock) select
- Set External Reference Mode
- Set Baud Rate
- Set Zone Plate Amplitude

To get information or change a setting:

1. Press the UTILITIES button to enter the utilities mode (the button’s LED will be lit when the TSG is in utilities mode).
2. Use the selector knob to scroll through the utilities list.
3. When the name of the desired utility is displayed on the TSG 1001 readout, select it by pressing the OTHER SIGNALS 1/→ button. The version information or current setting will appear on the readout.
4. To change a utility’s setting, press the “→” button repeatedly—or rotate the selector knob—until the desired setting is indicated on the TSG display. (The indicated setting is always “active”; there is no need to confirm the choice.)
5. Press the TIMING SIGNALS/← button to move back “up” one level to the utilities list. Repeat steps 2 through 4 to perform another utility task.
6. When you are done, press the UTILITIES button to exit the utilities mode. The TSG 1001 will return to normal operation.

The utilities and their options are fully explained in the User manual.

## Remote control

---

Most TSG 1001 functions can be controlled through RS-232 (serial) or ground closure remote control. Serial remote control is done through the same female

DB25 connector used for (serial) data downloads; a separate 37-pin female “D” connector is dedicated to ground closure control.

**Ground closure**

Ground closure pin assignments are listed in Table 2–1. If you are unfamiliar with ground closure techniques, see the User manual for more detail.

**Table 2–1** Functions of the ground closure pins.

Pin	Function	Pin	Function
1	Color Bars	20	Monitor Setup
2	Linearity	21	Shallow Ramp
3	Flat Field	22	Pulse and Bar
4	Multipulse	23	Multiburst
5	Sweep	24	Timing Signals
6	Other Signals 1	25	Other Signals 2
7	Other Signals 3	26	Formats
8	Signal Sets	27	G/Y (on/off)
9	B/P <sub>B</sub> (on/off)	28	R/P <sub>R</sub> (on/off)
10	Trigger	29	Set Pedestal
11	Utilities	30	Signal Menu
12	Knob Left (CCW)	31	Knob Right (CW)
13–18	not used	32–37	not used
19	GROUND		

**RS-232**

The TSG 1001 can be controlled over a standard RS-232 interface by any device that can generate or transmit commands in ASCII characters. This makes it possible to control the TSG 1001 from an ASCII terminal or PC. Serial remote control can be convenient during performance verification and adjustments. Through serial remote control, for example, zone plate parameter values can be entered directly (and precisely) from a keyboard, rather than with many turns of the TSG 1001 selector knob.

RS-232 commands and command syntax are explained in *Commands for serial remote control*, in the Reference section of the User manual.

**Serial cable requirements**

If the serial port of the controlling device is a DB25 connector, use the cable supplied with the TSG 1001 or another straight-through cable consistent with Table 2–2. Do not use a “null modem” cable. If the serial port is a male DB9 connector (as on many IBM-compatible PCs), use a cable or adapter with the connections described in Table 2–3.

If the device has a non-standard connector, determine which pins perform the functions listed in the center column of Table 2–3 and connect them through to the pins of a DB25 connector (left column) listed for that function.

**Table 2–2** RS-232 pin/conductor functions on the TSG 1001 and “standard” 25-pin serial ports.

TSG 1001 Female DB25	Pin/Wire	PC/Terminal Male DB25
RxD	2	TxD
TxD	3	RxD
CTS	4	RTS
RTS	5	CTS
DTR	6	DSR
DSR	20	DTR
Signal GND	7	Signal GND
DCD	8	DCD

**Table 2–3** Connections in a 9-pin to 25-pin RS-232 adapter.

DB25 Pin Number	RS-232 Function	DB9 Female Pin Number
2	TxD	3
3	RxD	2
4	RTS	7
5	CTS	8
6	DSR	6
7	Signal GND	5
8	DCD	1
20	DTR	4

### Communications parameters

For best results, use these communications parameters for serial remote control:

- TTY or VT100 Terminal Emulation.
- Hardware Flow Control (RTS/CTS).
- 8 Data bits, no Parity, 1 Stop bit.
- Local Echo (or “Half Duplex”).

### Terminal options

Many PC communications applications may be used for serial remote control of the TSG 1001. Because each application has slightly different capabilities and features, it is impossible to suggest “universal” settings and parameter choices.

The following Procomm Plus® (MS-DOS version 2.0) Terminal Options may be used as an example; they are known to work for RS-232 control of the TSG 1001 and may be helpful in configuring other communications software as well.

Terminal emulation	VT100 or ASCII
Duplex	HALF
Soft flow ctrl (XON/XOFF)	OFF
Hard flow ctrl (RTS/CTS)	ON
Line wrap	ON
Screen scroll	ON
CR translation	CRL/F
BS [back space] translation	n/a
Break length (ms)	350
Enquiry (ENQ)	n/a
EGA/VGA true underline	OFF (n/a)
Terminal width	80
ANSI 7 or 8 bit commands	8 BIT

Some communications applications may not be able to detect the RTS (request to send) signal from the TSG 1001. Hardware flow control will not be possible when using such a program. However, communication may still be accomplished at a lower baud rates ( $\leq 2400$  baud).

## Controls and connections

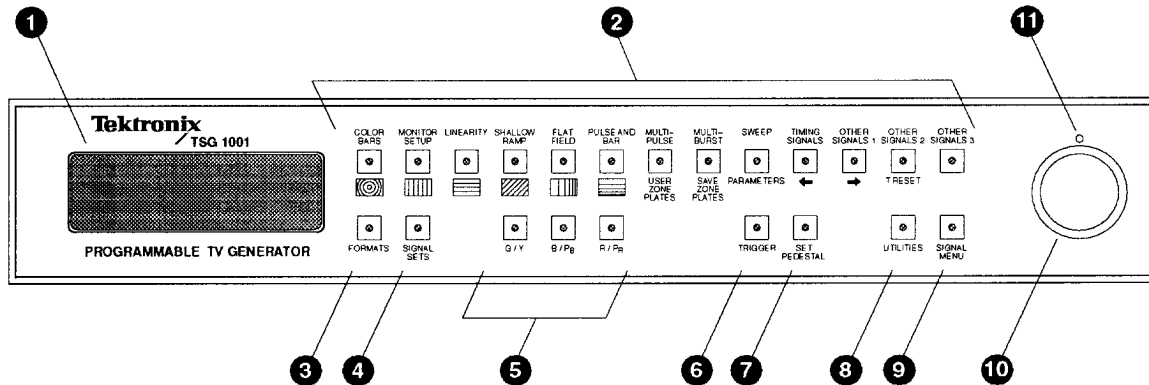


Fig. 2-2 The TSG 1001 front panel.

### The front panel

The front panel of the TSG 1001 is illustrated above. Please see the following numbered paragraphs for a brief explanation of each feature.

1. **Front Panel Readout** — A 2 line by 16 character vacuum-fluorescent display used to show TSG 1001 operating information.

2. **Signal-Select buttons** — Used to select test signal categories or zone plate patterns. When the integral LED is lit, the button is “active,” and the associated signals will be output or available. When the RAM board signal set has been selected (with the SIGNAL SETS button), repeated pressing of the active signal-select button will scroll among alternate signals in the category, if any.
3. **FORMATS-Select button** — Used to choose among signal formats if the RAM board signal set contains signals of more than one format. (A “format” is characterized by both the picture scanning structure and the method of encoding chrominance and luminance information. Thus, “525/59.94/2:1 GBR” and “525/59.94/2:1 YPBPR” are unique formats. See the Getting Started section of this manual for more information.)
4. **SIGNAL SETS-Select button** — Used to select between the test signal set in RAM and the resident zone plates. The first press of the button will enable selection and cause the current signal set name to be displayed on the readout. Subsequent presses toggle between the two signal sets. Pressing most other front-panel buttons will cancel the signal sets-select mode.
5. **Video Output CHANNEL on/off buttons** — Toggle the corresponding video channel on and off. A button’s LED will be lit when the channel is active.
6. **TRIGGER button** — Enables adjustment of the “location” in the video frame of the TTL trigger pulse. When the button’s LED is lit, the trigger location cross hairs will be added to the current test signal and the coordinates of the pulse will appear on the TSG 1001 readout. When the mode is first entered, turning the selector knob will change the horizontal position; after a second press of the button, the knob will control the vertical position. The generator will return to normal operation after a third press. The trigger output will be active at all times, whether the TRIGGER button is lighted or not.
7. **SET PEDESTAL button** — Enables adjustment of the active video pedestal of video output channels. When the button’s LED is lit, the pedestal (base voltage) level is displayed on the TSG readout, and the level may be adjusted with the selector knob. The pedestal will revert to 0 mV whenever this button is inactive.
8. **UTILITIES button** — Enables the utilities mode. When this button is lit, the user may adjust basic instrument parameters (e.g., communications baud rate and beeper on/off) and check software version data.
9. **SIGNAL MENU button** — Toggles the video output between test signals and the signal menu. When the LED is lit, a menu of the signals available through the active signal-select button is shown on the attached video monitor. The menu entry of the current test signal is preceded by a “>” symbol.
10. **Selector Knob** — Works with the front-panel buttons to select, adjust, and control various functions of the TSG 1001.

## The rear panel

The rear panel of the TSG 1001 is illustrated in Fig. 2–3. Please see the following numbered paragraphs for a brief explanation of each feature.

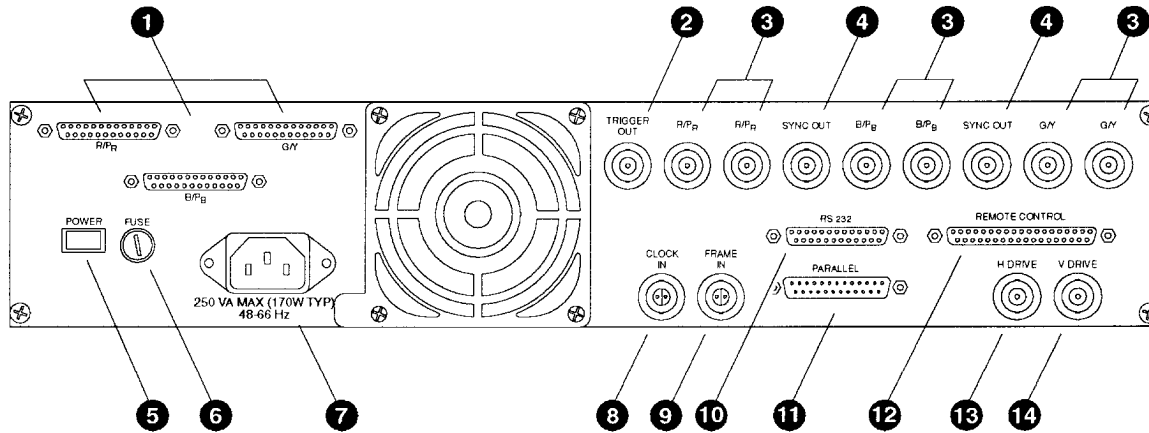


Fig. 2–3 The TSG 1001 rear panel.

1. **Digital video channel outputs** — Female DB25 connectors that provide parallel digital output of the three video channels. The output is balanced ECL with 10 data pair and one clock pair per channel.
2. **Trigger output** — A 75Ω BNC connector that provides a frame-rate TTL pulse that can trigger an oscilloscope or other equipment.
3. **Analog video channel outputs** — 75Ω BNCs, two for each component video channel. When the TSG 1001 is generating NTSC composite video, the composite signal will be available on one, two, or all three of the channels, depending on the source program; see the SDP1000 manual for more information.
4. **Sync outputs** — 75Ω BNCs that provide only the bi-level or tri-level sync pulses of the active video format.
5. **Power switch** — Push-push on/off.
6. **Fuse** — Medium blow: 2A for 230V operation, 4A for 115V operation.
7. **Power cord receptacle.**
8. **Clock input** — A 78Ω “BNO” connector for input of an external balanced ECL clock signal. The clock signal may be encoded with a frame-reset pulse. Permits the use of an external oscillator, typically in a Tektronix SPG 1000 HDTV Sync Generator.
9. **Frame input** — A 78Ω “BNO” connector for input of an external frame re-set signal. The external frame reset pulse must be accompanied by a clock pulse present at the Clock input.
10. **RS-232 (serial) communications port** — A female DB25 connector for both data transfer into RAM and serial remote control.
11. **Parallel communications port** — A male DB25 connector for fast parallel downloads of test signal data into RAM.

12. **Ground-closure remote control port** — Allows the control of all front panel operations through ground-closure remote control, typically with a user-built interface.
13. **H Drive output** — A 75Ω BNC that can provide TTL-compatible (high or low) output. Intended for the output of a high or low pulse at the horizontal rate. The level of this output is determined by instructions in the signal-source program. See the SDP1000 manual for more information.
14. **V Drive output** — A 75Ω BNC that can provide TTL-compatible (high or low) output. Intended for the output of a high or low pulse at the vertical (frame) rate. The level of this output is determined by instructions in the signal-source program. See the SDP1000 manual for more information.

## Installation

The TSG 1001 fits any standard 19-inch rack. It mounts in rack slides—which are provided with the instrument—for easy installation, removal, and transport. This section includes instructions for both electrical and mechanical installation.

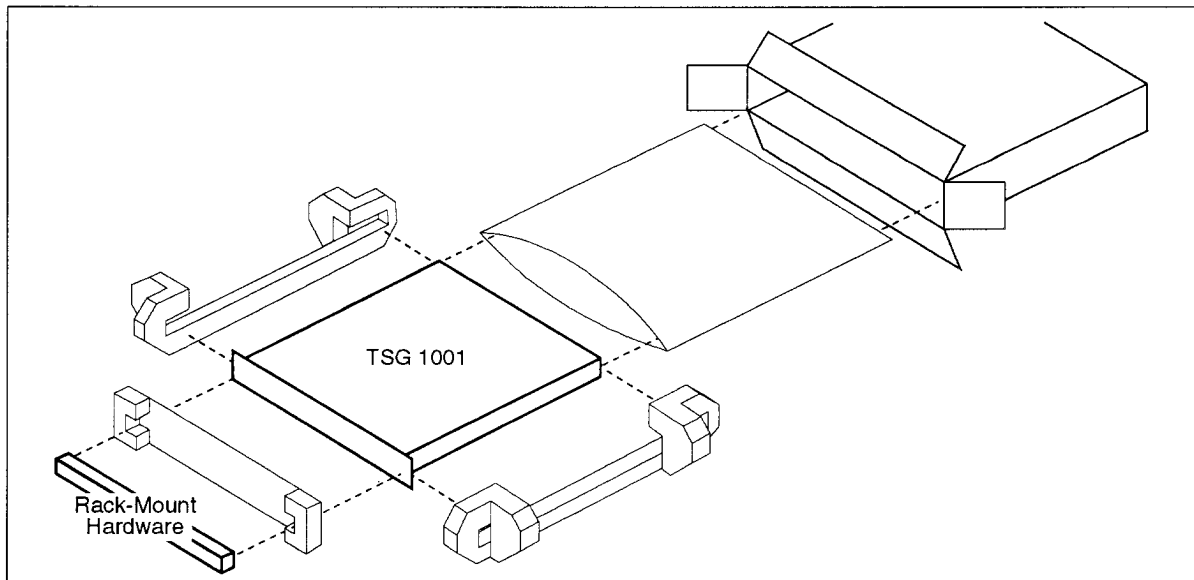


Fig. 2-4 Unpacking and re-packing the TSG 1001.

## Unpacking

When unpacking the TSG 1001, confirm that the following items have been received (in addition to the instrument and this Service manual):

- The User manual.
- The correct power cord.
- A cable for serial/parallel communications (Tektronix p/n 174-2344-00)
- Rack-mount hardware (Tektronix p/n 351-0751-01).
- An SDP1000 signal development software package.
- An envelope of accessory hardware.

Please save the shipping carton and all packaging materials in case reshipment becomes necessary.

## Electrical installation

The TSG 1001 operates on a nominal line voltage of either 115 or 230 Volts over a line frequency range of 48 to 66 Hz. The setting of the power supply voltage switch (S825, accessible through the bottom of the instrument), and the value of the installed fuse are consistent with the power cord option ordered with the instrument (see Fig. 2-5 and Table 2-4). The fuse value and voltage are indicated with a black pan-head screw on the rear panel power supply information label. Before installing the generator, confirm that the indicated configuration is correct for the local power supply.

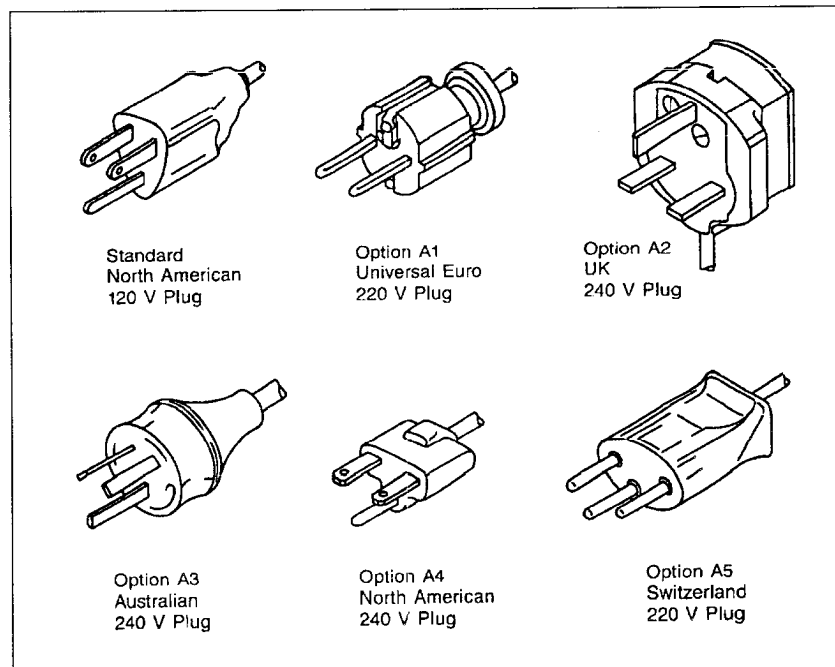


Fig. 2-5 The power cord options.

Table 2-4 Possible power supply configurations.

Power Cord Option	S825 Position	Fuse
Standard (N. America, Japan)	115 V	4 A, medium blow
A1, A2, A3, A4, and A5	230 V	2 A, medium blow

### Attaching the power cord

Place the supplied (in the accessory envelope) loop clamp around the power cord and plug the cord into the rear panel receptacle. Remove the screw at the lower-left of the rear panel. Use the screw and washer supplied with the loop clamp to mount the clamp to the instrument (see Fig. 2-6). This will minimize the chance of accidentally unplugging the TSG 1001 when sliding it in and out of the rack.



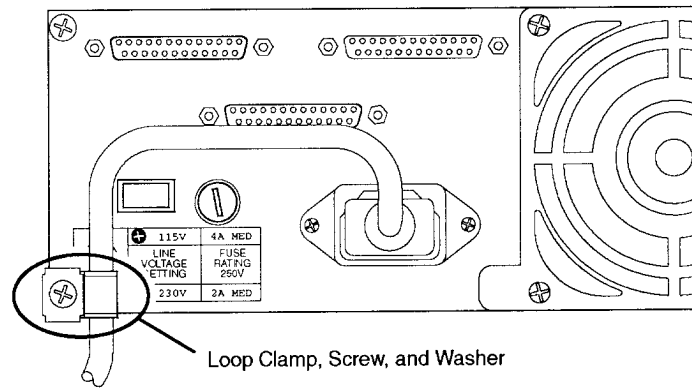


Fig. 2-6 Attaching the power cord.

## Mechanical Installation

### Rack mounting

The TSG 1001 fits in a standard 19-inch rack. Spacing between the front rails of the rack must be at least 17.75 inches (45.1 cm) to allow clearance for the slide-mounts.

Rack mounting hardware has been supplied with the instrument. The hardware is compatible with any rack that has front-to-rear rail spacing of between 15.5 and 28.0 inches (39.4 and 71.1 cm). Six inches (15.2 cm) of clearance are required between the rear panel of the instrument and any rear cabinet panel or wall to provide adequate room for connectors and air circulation.

The slide-mount tracks are coated with a self-lubricating finish. They do not require any maintenance or additional lubrication.

### Installing the slide-mount hardware

Install the slide-mounts as shown in Figs. 2-7 and 2-8. Be sure that the stationary sections are mounted at the same height, and that they are level from front to back. For best results, do not tighten the screws until after the instrument has been installed.

### Installing the TSG 1001

Complete the rack installation of the TSG 1001 as follows:

1. Pull the sliding sections of the tracks to their fully-extended positions.

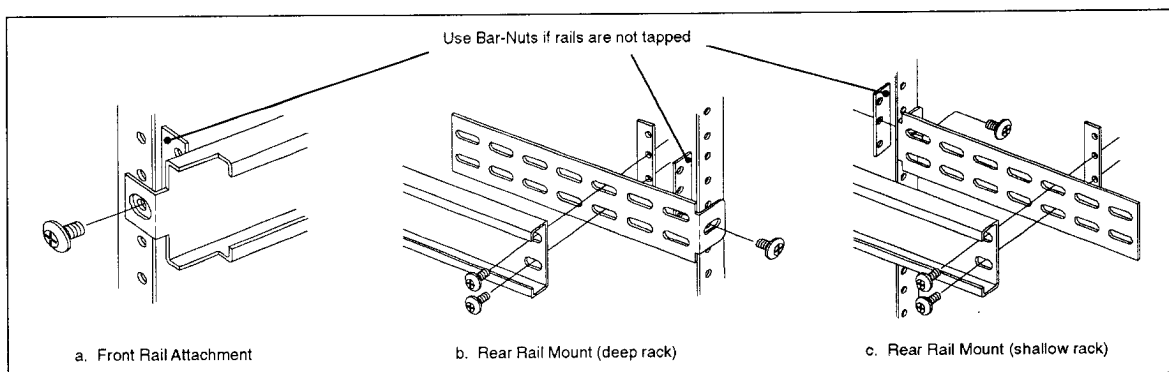
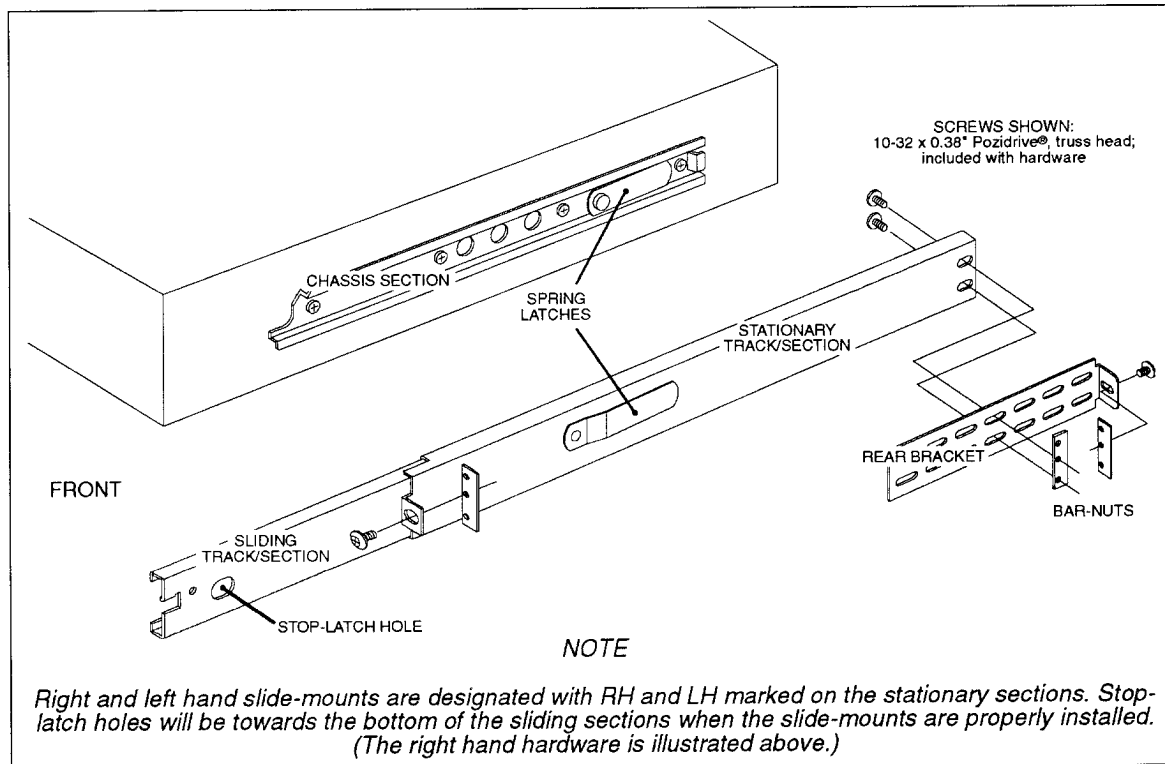


Fig. 2-7 Installing the stationary slide-mount sections.



**Fig. 2-8** Assembly of the rack-mounting hardware.

2. Insert the instrument into the extended sliding sections until the spring latches on the chassis sections begin pushing the sliding sections back into the stationary tracks.
3. Press and hold the spring latches and push the generator into the slide-mounts until the spring latches snap in the stop-latch holes.
4. Press the latches again and push the instrument the rest of the way into the rack. Tighten the screws that hold the stationary tracks to the rear of the rack. Slide the instrument in and out at least once to make sure the tracks do not bind.
5. Pull the TSG 1001 out far enough to tighten the screws at the front of the stationary tracks. Once the tracks are tightly fastened, push the instrument all of the way into the rack and use the front-panel retaining screw to hold it in the "retracted" position.

### Removing the TSG 1001

To remove the TSG 1001, first disconnect all cables from the back of the instrument, then remove it from the rack as follows:

1. Unscrew the front-panel retaining screw to completely disengage it from the rack.
2. Pull the instrument out until the spring latches snap into the stop-latch holes on both sides.
3. Press both spring latches to disengage them from the stop-latch holes and pull the TSG 1001 free of the slide tracks. For safety, push the rack slides back into the stationary tracks (push the spring latches out of the stop-latch holes to make this possible).

## Power-up/checkout

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Once the TSG 1001 has been installed, switch it on (the power switch is on the rear panel near the power receptacle) and confirm that the factory-loaded test signals remain in RAM. This is necessary because, if several weeks have passed in shipping or storage, the rechargeable backup batteries may have discharged below the level required to retain information in RAM. Symptoms of “empty” RAM include:

- A lag between the press of a TSG 1001 front-panel button and the responding “beep.”
- A press of any test signal (top row) button returns a “No Signals Defined” message.
- A press of the FORMATS button returns a “No Formats Stored” message.

If the TSG 1001 displays these symptoms on initial power-up, you should reinitialize the instrument with the procedure described next.

## Reinitializing the instrument

---

1. Switch the generator off and perform a “Power-up reset” by pressing and holding the COLOR BARS button while switching the instrument back on. Release the button when the display panel begins cycling through the names of the Zone Plates stored in ROM.
2. Select the Zone Plate Signal Set with the SIGNAL SETS button. The first press will result in a blank display and, eventually, a beep. The second press will select the Signal Set and cause another belated beep.
3. Install the SDP1000 on an IBM-compatible Personal Computer (PC) and connect the PC to the TSG 1001 if you haven’t already done so. See the software (SDP1000) manual for installation instructions.
4. Use the SDP1000/COM1000 utility to download one of the .dnz files from an SDP1000 signal library to the TSG 1001. Again, follow the procedures described in the software manual. Once the download is complete, the generator will be able to output test signals.
5. Leave the TSG 1001 switched on for 14 to 20 hours to fully recharge the RAM backup batteries.





# Section 3

## Theory of Operation

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This Theory of Operation section is included as an aid to qualified technicians in troubleshooting and repairing the instrument. An exhaustive, circuit-by-circuit discussion is beyond the scope of this manual. The section contains an overview of instrument operation, followed by functional descriptions of the principal circuit boards. The boards discussed are:

- A5, Controller
- A31, Zone Plate
- A17, RAM
- A2, Oscillator
- A3, (analog) Output with Filter and Pedestal satellite boards
- A4, Power Supply

The circuit board descriptions are further broken into discussions of major circuits contained on the board. Numbers enclosed in brackets (<>) refer to the applicable schematic diagram. For clarity in this text, inverted signals are designated with an asterisk (for example, LBEOI\*), rather than in parentheses, as on the schematic diagrams.

A block diagram of the entire instrument appears on the following page. Block diagrams of the individual circuit boards appear when called for in the circuit board description.

### Instrument Overview

See Fig. 3-1 for a block diagram of the TSG 1001. In brief, the controller scans the front panel and selects test signals. A high-speed digital state machine retrieves a digital representation of the desired test signal from RAM. Three precision digital-to-analog converters (DACs) produce the analog version of the test signal. The pedestal DACs allow a DC offset to be added to the analog outputs during active video. The output DACs are followed by low-pass filters and output amplifiers that drive the rear-panel outputs. The Sync outputs are produced by stripping the active video from the G/Y output channel. The parallel digital outputs are buffered versions of the DAC input data.

**Front Panel** — The Front Panel board contains the selector knob, momentary-contact switches, and LEDs. It interfaces directly with the Controller board.

**Controller board** — The Controller board performs a variety of functions. It accepts input from the front panel as well as an RS232 (serial) port, a parallel port, and a ground-closure remote control port; it controls test signal selection and pedestal levels; it calculates zone plate parameters; and it contains the hardware required to generate the on-screen menus and cursors. The Controller board communicates with several other boards in the instrument via the unified micro-processor interface (UMI).

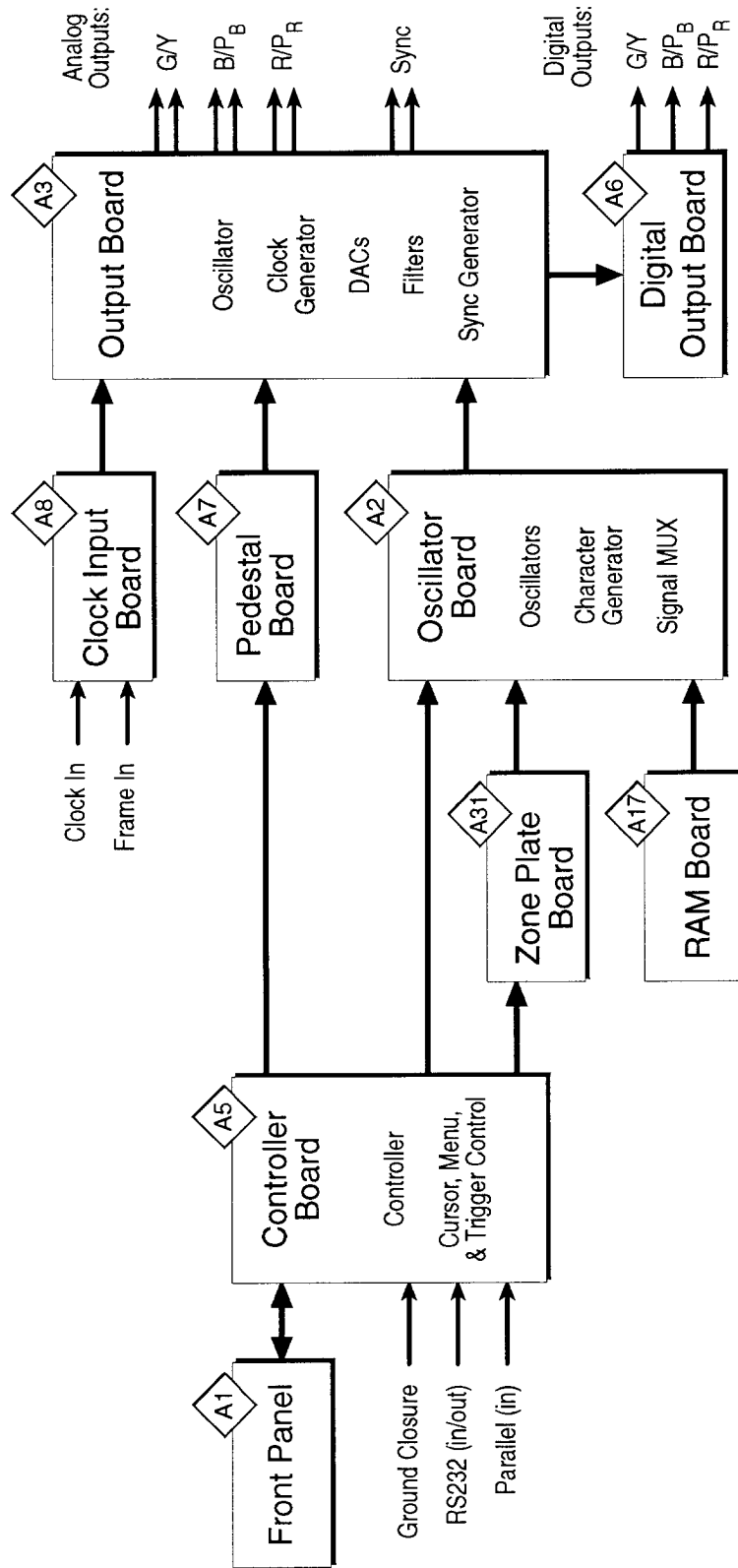


Fig. 3-1 A block diagram of the TSG 1001.

**Zone Plate board** — The Zone Plate board contains an ASIC that produces a zone plate pattern by calculating video samples in real-time based on parameters loaded by the controller. When the zone plate is active, H and V sync information is produced by the RAM board. The switching between sync and active video occurs on the Oscillator board.

**RAM board** — All test signal data in the TSG 1001 is contained in battery backed-up RAM. The information is downloaded through the rear panel RS232 or Parallel communications port.

**Pedestal board** — A “satellite” of the Output board. The Pedestal board DACs can add a DC pedestal to the test signal outputs during active video.

**Clock Input board** — Accepts a clock and frame input from the SPG 1000 or other external source, and decodes the encoded frame pulse from the clock signal, if necessary. This board makes it possible to genlock the TSG 1001 to an external signal source. The output may be used by the Output board to generate internal (to the TSG) timing signals.

**Oscillator board** — Contains two of the three TSG 1001 oscillators as well as the character generator and signal multiplexer.

**Output board** — The Output board performs two main functions. It generates timing signals for use by other circuit boards, and it processes the digital signal information (with DACs, filters, and amplifiers) to derive the analog outputs.

**Digital Output board** — This satellite board buffers and latches test signal data for the parallel digital outputs on the rear panel.

**Power Supply** — A 200 watt switching supply that produces  $\pm 12$  V, +5 V,  $-5.2$  V, and  $-2$  V (all DC) for use by the various circuits within the instrument.

The principal circuit boards are described in detail below.

## Controller Board (A5)

The TSG 1001 Controller board is divided into five major sections: Kernel, IO Ports, Cursor Generator, Character Generator, and Remote Control and Miscellaneous.

### Kernel <1>

The TSG 1001 kernel consists of:

- a Z80 microprocessor ( $\mu$ P),
- RAM,
- PROM,
- CTC,
- IO Decoders,
- Memory Decoder,
- Diagnostic Switch,
- Address Bus Driver,
- Data Bus Transceiver,
- Clock Generator, and
- Watchdog Timer.

The kernel exists as a separate entity to provide a way to test the  $\mu$ P system even if an external problem exists on the address, data, or control bus.



The Z80 is the core of the Controller board. It controls the signal generation hardware, runs the front panel, operates the pedestal, trigger, menu functions, and general housekeeping.

U3 is a battery-backed-up static RAM that is used for storing all parameters and restoring them on power-up. The RAM is also used as scratch-pad RAM.

All but zone plate code instructions are stored in the kernel PROM, U11. Zone plate code is in A31-U23.

The CTC serves as a general purpose counter/timer, an interrupt controller for the front panel, and a “framer” that generates interrupts on video frame boundaries.

IO decoders decode all the IO ports used on the Controller board itself. All other boards do their own decoding of IO ports and memory locations. All the signals for this are distributed to each board via the universal microprocessor interface (UMI) bus, which consists of buffered address, data, and control buses.

Memory decoding is done in U93, a 22V10 PAL. U93 decodes RAM, PROM, IO banks, UART, and video RAM memory locations. It also allows the kernel to be isolated from the external data bus in case of a fault.

The clock generator circuit provides a 6 MHz clock with the proper amplitude and rise times to the Z80 and CTC.

The watchdog timer controls resetting the controller and the rest of the generator

- when reset is asserted by placing P2 on pins 2 and 3,
- during low power supply voltage and power-up conditions, or
- if the controller software becomes “lost” due to a power hit, hardware problem, or hung or disconnected computer remote controls.

### **IO Ports <2>**

The IO port section consists of 3 major sections: 1) keyboard encoders, 2) LED ports, and 3) knob decoder.

The keyboard encoder encodes the front-panel switch array to codes readable by the  $\mu$ P so that appropriate action can be taken.

The LED ports allow the controller to turn the front-panel LEDs on and off. All outputs are active low except the knob LEDs, which are active high.

The Knob decoder processes the quadrature-encoded signals from the knob to detect knob movement and determine the amount of movement.

### **Cursor Generator <3> <4>**

The Cursor Generator consists of two basic parts: horizontal cursor generator and vertical cursor generators.

The horizontal cursor generator consists of horizontal counters U33, U32 and U45. The counters are clocked by CLK/4 signal from the Oscillator board. This clock is at the signal generation system clock/4 rate. The counters are cleared at the end of each horizontal line. The outputs of the counters, which correspond to the horizontal sample number/4, are fed to two 16-bit magnitude comparators. The comparators compare the H sample number with a value set by the  $\mu$ P and front panel. One comparator, U35 and U36, determines the start of the H cursor, (goes vertical on screen); the other determines the end point. Together, these determine the thickness of the cursor.

The vertical cursor generator consists of vertical counters U47, U48, and U45. The counters are clocked by LBEOL derived from the CLK/4 signal from the Oscillator board. The counters are cleared at the end of each signal frame. The outputs of the counters, which correspond to the vertical line number are fed to two 16-bit magnitude comparators. The comparators compare the vertical line number with the value set by the  $\mu$ P and front panel. One comparator, U52 and U53, determines the start of the V cursor (goes horizontal on screen); the other determines the end point.

The outputs of these comparators are combined together in U97, a 22V10 PAL. ORing of the H and V cursors produces the on-screen cursors; ANDing the H and V cursors produces the trigger signal.

### Character Generator <5>

The character generator consists of four main parts: H timing, V timing, character RAM, and the character generator proper.

H and V timing share the H and V counters with the trigger circuitry. The outputs of these counters go to H and V decoding PROMs which create timing signals for the character generator as well as a window signal which tells the Oscillator board when to allow character insertion. Various sections are enabled depending on the signal format chosen with the H and V mode controls on each PROM. U46 in the H decoder section reduces STRTCHR signal to one CLK/4 period.

The character RAM is written to by the  $\mu$ P via U69 with the Address control given to the processor by the address MUX, U62, U63, U64. When the RAM is not being written to the address, control is given to the character counter, U65 and U66. This counter sequences through the RAM on an H basis. The various lines of text are accessed by counts off the vertical counter outputs Vert[0..4].

The character generator proper consists of an IC U60, a Motorola 86S64, and some glue logic, with the output feeding PAL U97.

Starting with the 671-0911-05 level of the controller board, character generator U60 was replaced with a three IC circuit. The character dot data is stored in a PROM (U2). This PROM is addressed by counter U102 to determine the character line, and by U61 to determine the character stream for that line. The PROM output is loaded into shift register U103 and clocked out serially to PAL U97.

### Remote Control and Miscellaneous <6> <7>

The remote control and miscellaneous section is composed of ground-closure remote ports, a UART for RS232 communication, a parallel port for communication to a Centronix-compatible printer port and a slot-select port for instrument-level housekeeping.

The ground-closure remote ports take outputs from a passive switch to ground and allow the  $\mu$ P to read it. There is one port for each front-panel control function. The ports are double buffered. In the event of ESD on an input, the main bus can continue to function.

The UART, along with Y2, U88, and U89, provides RS232 communication. Baud rates available are 1200, 2400, 4800, 9600, 19200, 38400, and 115200.

The parallel port function is provided by U99 and U100.

The slot-select port has select lines for the various signal generation boards which bank-select the various TOC PROMs for reading. This is also where the beeper-enable is located and where the reset signal is distributed to the various boards.

### Controller diagnostics

Several diagnostic modes are available through DIP S1 on the Controller board. These modes are used during manufacture and for quality assurance; they may also be useful for later troubleshooting and service if necessary. To activate a diagnostic mode in the TSG 1001, set S1 to the appropriate setting, then switch instrument power off momentarily. S1 position 1 is the LSB; position 8 is the MSB. A switch is set to "1" when in the "open" position. (Open positions 8 and 3 for a setting of 10000100.) To return to normal operation, set all positions of S1 to 0 (closed) and switch the power off, then back on.

**LEDS\_On** ..... **S1 setting 10000100**

Turns on all the front-panel LEDs. It is used to check the function and relative brightness of all front-panel LEDs.

**Softversion** ..... **S1 setting 10000110**

Displays the Software Version on the front-panel display. This is also available through the UTILITIES button.

**Swdisp** ..... **S1 setting 10000111**

This diagnostic takes the keypad switch outputs, converts them to ASCII, and outputs the results to the front-panel display. In other words, pressing a front-panel button will write a unique character to the display panel.

**Battery diagnostic** ..... **S1 setting 10001010**

This diagnostic reads continually from the battery port and displays the voltage on the front-panel display.

## Zone Plate Board (A31)

### Overview

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The Zone Plate board generates the data for the zone plate signal set. The data is calculated in real-time based on parameters supplied from the Controller board. The actual sample values are calculated in an ASIC. The ASIC operates at half clock speed (around 36 MHz) and produces two 10-bit outputs which are interleaved to achieve a full-speed data stream.

### Sync Insertion

The Zone Plate board produces only the active video portion of the zone plate signals. The horizontal and vertical syncs for the signals are produced by the RAM board. The switching between sync and active video occurs in the output multiplexers on the Oscillator board.

### Processor Interface

The UMI can access the table of contents (TOC) PROM, the NVRAM, and 32 memory mapped registers inside the ASIC.

## Clock and Control Lines

The system clock is divided by two to operate the ASIC. The full speed system clock drives the multiplexers and output registers. Two additional signals are used to control the zone plate ASIC. These are active video (AV) and line one (L1), provided by the RAM board.

## Multiplexer

The two 10-bit outputs from the ASIC are latched in ECL registers. The register outputs are sent to a 2:1 multiplexer (MUX) which selects alternate registers at full clock speed. The output of the multiplexer is also registered and sent off to the Oscillator board.

## Schematic Overview

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### Controller Interface <1>

U24, U25, and U21 isolate the UMI address and data buses. U22 performs the address decoding. U26 is an NVRAM, while U23 is the table of contents (TOC) PROM. U27, in conjunction with U14 (page 3), allows the controller to set and clear the ASIC LI and AV control lines.

### Clock Drivers <1>

This page contains the delay lines for the clock and reset. It also contains the clock generator. The system clock is divided by two in U117 to drive the ASIC, MUXes, and latches. It is also divided by eight to register PEDGATE2 and BEO-FRAME2, which are received from the RAM board. Clocks are buffered by U15, U16, U19, and U20.

### Channel 1 (ASIC and Multiplexers) <2>

This page contains the ASIC, MUXes, and latches. The ASIC, U1, receives commands from the controller interface, and control signals from the RAM board. The control signals are registered in U14. The ASIC produces two 10-bit outputs. These are converted to ECL in U2, U3, U4, U5, and U6. The ECL data is registered at a clock/2 rate in U7, U8, U9, and U10. The registered data is then multiplexed into a single 10-bit stream and re-registered in U11, U12, and U13.

### Interconnects <3>

The 10-bit data stream from the ASIC and multiplexers is connected to all three channels through 0  $\Omega$  resistors, R52–R61.

## RAM Board (A17)

### NOTE

*For clarity in this text, inverted signals are designated with an asterisk (for example, LBEOL\*), rather than in parentheses, as on the schematic diagrams.*

*This description applies to instruments beginning with serial number B010132, which have RAM board p/n 671–2028–0X.*

The TSG 1001 RAM board is intended to generate component video signals in a variety of formats. The board can hold multiple video frames composed of arbitrary matrices of differing video lines. Frame length, line length, and active video interval are programmable (with some restrictions). The frames and lines stored in the board are modified via the processor interface. All information is preserved by battery when the power is turned off. Fig. 3–2 is a block diagram of the TSG 1001 RAM board.

The processor interface includes U400, U401, U402, U403, U404, U405, and U406. Bus ED[0..7] is the processor data bus, which is buffered by transceiver U400. Bus EA[0..15] is the processor address bus, which is buffered by U402 and U403.

The RAM board uses portions of both the IO map and the memory map of the processor. The transceiver U400 is enabled when either memory access or I/O access are mapped into the board. Memory addresses [C000..FFFF] are mapped into the board if:

RA14 and RA15 are high (address in range [C000..FFFF])  
and  
BMREQ\* is low (memory access)  
and  
RAMSEL\* is low (board selected)

In this case, RAMMEMEN\* becomes asserted. I/O addresses are mapped into the board if:

RA[0..7] are correct (I/O address in range)  
and  
BIOREQ\* is low (I/O access)

Register U401 selects the operation mode of the board. There are two major operational modes: refresh mode and access mode. During refresh mode, video is generated by the board, and the video generated by the board cannot be altered by the processor. During access mode, no meaningful video is generated by the board, and the processor may modify frame memory, line memory, attribute memory, and table of contents (TOC) memory. The mode bit control is listed in Table 3–1.

U406 provides a dual path to the clock and load lines for the frame and line addresses. During refresh mode, these lines are driven real-time by U406 according to the FRAMEEND\*, LINEEND\*, QLINEEND\*, and CLK8 signals (see below). During “Frame address” and “Line address” modes, these lines are driven according to the state in Table 3–1.

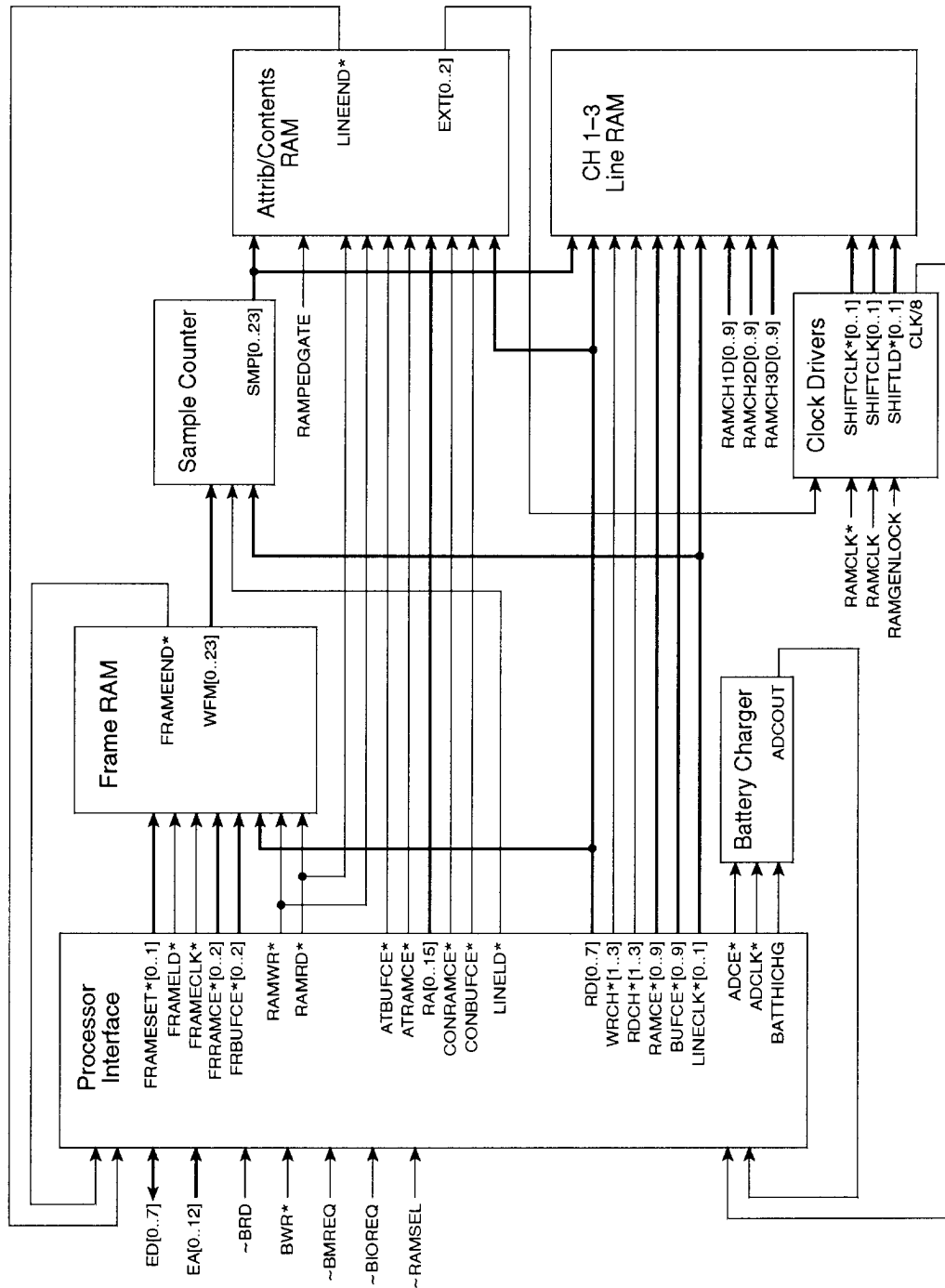


Fig. 3-2 A block diagram of the TSG 1001 RAM board.

Table 3–1 TSG 1001 mode bit control.

Mode								RA	RA	Access	Mode	Strobe
7	6	5	4	3	2	1	0	1	0			
X	X	0	0	0	0	0	0	0	0	R/W	Frame	FRBUFCE*0
X	X	0	0	0	0	0	0	0	1	R/W	Frame	FRBUFCE*1
X	X	0	0	0	0	0	0	1	0	R/W	Frame	FRBUFCE*2
X	X	0	0	0	0	0	1	X	X	R/W	Access/TOC	CONBUFCE*
X	X	1	0	0	0	0	1	X	X	R	Refresh/TOC	CONBUFCE*
X	X	0	0	0	1	0	0	X	0	W	Frame address	FRAMESET*0
X	X	0	0	0	1	0	0	X	1	W	Frame address	FRAMESET*1
X	X	0	0	1	0	0	0	X	X	R/W	Attribute	ATBUFCE*
X	X	0	0	1	1	0	0	X	0	W	Line address	LINECLK*0
X	X	0	0	1	1	0	0	X	1	W	Line address	LINECLK*1
X	X	0	1	0	0	0	0	X	X	R/W	Line	BUFCE*0
X	X	0	1	0	0	0	1	X	X	R/W	Line	BUFCE*1
X	X	0	1	0	0	1	0	X	X	R/W	Line	BUFCE*2
X	X	0	1	0	0	1	1	X	X	R/W	Line	BUFCE*3
X	X	0	1	0	1	0	0	X	X	R/W	Line	BUFCE*4
X	X	0	1	0	1	0	1	X	X	R/W	Line	BUFCE*5
X	X	0	1	0	1	1	0	X	X	R/W	Line	BUFCE*6
X	X	0	1	0	1	1	1	X	X	R/W	Line	BUFCE*7
X	X	0	1	1	0	0	0	X	X	R/W	Line	BUFCE*8
X	X	0	1	1	0	0	1	X	X	R/W	Line	BUFCE*9
0	0	0	1	X	X	X	X	X	X	R	Line	RDCH*1
0	0	0	1	X	X	X	X	X	X	W	Line	WRCH*1
0	1	0	1	X	X	X	X	X	X	R	Line	RDCH*2
0	1	0	1	X	X	X	X	X	X	W	Line	WRCH*2
1	0	0	1	X	X	X	X	X	X	R	Line	RDCH*3
1	0	0	1	X	X	X	X	X	X	W	Line	WRCH*3

U407, U408, U409, U410, U411, and U412 provide the interface to the line memory during “Line” mode. One of BUFCE\*[0..9] is asserted according to the table above; the asserted line will enable the transceiver storing the corresponding bit (bit 0..9) for all three channels. During writes, one of WRCH\*[1..3] is asserted; this causes data from the bus RD[0..7] to be stored into the RAM which is enabled by the asserted BUFCE\* line, and strobed by the asserted WRCH\* line. During reads, one of RDCH\*[1..3] is asserted; this causes data from the RAM which is enabled by the asserted BUFCE\* line, strobed by the asserted RDCH\* line, to appear on bus RD[0..7]. The mode for writing a byte into channel 1, bit 9, for example, is shown in Table 3–2.

Table 3–2 The TSG 1001 mode when a byte is written to channel 1, bit 9.

Mode								RA	RA	Access	Mode	Strobe
7	6	5	4	3	2	1	0	1	0			
0	0	0	1	1	0	0	1			W	Line	BUFCE*9 WRCH*1

Before using Line mode, the address used for line memory access (SMPA[0..14], SMPB[0..14], and SMPC[0..14]) is set by the processor using the Line address mode; this loads data from RD[0..7] into counters U700, U701, U702, and U703. (The address must be written twice to both the high byte and low byte to load both counters, and load the initial value into pipeline latches U140, U141, U240, U241, U340, and U341). During Line mode, the address used for the access to the line RAMs is automatically incremented after each access.

During “Attribute” mode, the contents of the attribute RAM U705 may be similarly read and modified. The initial address must be previously set using Line address mode as described above. During reads, RAMRD\* is asserted, and the contents of U705 appears on bus RD[0..7]. During writes, RAMWR\* is asserted, and the data from RD[0..7] is stored into U705.

During “Frame” mode, the contents of the frame RAMs U607, U617, U609, U619, U611, and U621 may be read and modified. The initial address must be previously set using “Frame address” mode; this loads data from RD[0..7] into latches U600 and U601. (The address must be written once to the low byte and twice to the high byte to load both latches, and load the initial value into counters U602, U603, U604, and U605). During Frame mode, the address used for the access to the frame RAMs is automatically incremented after each access. The RAM that is modified will be:

Control Asserted	Line 15 (Address)	Part
FRRAMCE*0	0	U617
FRRAMCE*0	1	U607
FRRAMCE*1	0	U619
FRRAMCE*1	1	U609
FRRAMCE*2	0	U621
FRRAMCE*2	1	U611

The RAMs respond to the RAMRD\* and RAMWR\* strobes as described above.

During “TOC” mode, the contents of U707 may be read and modified. This memory may be randomly accessed; that is, there is no need to set a starting address. The address used for each access appears on address bus RA[0..13]. The RAM responds to RAMWR\* as described above; the contents of the RAM appear on bus RD[0..7] any time that MRD\* is asserted (this may happen during either access mode or refresh mode).

The table of contents (TOC) memory is used to give information on the signals and formats stored on the board to the processor. The remaining memories are used to generate these signals. The refresh mode is started by loading the frame address as described above. For each video line in the frame, counters U602, U603, U604, and U605 will count up, incrementing line count LINE[0..15]. For



each line count, one value will appear on bus WFM[0..23]. The data WFM[0..14] represents the address in the line RAMs which represent the video line at that line count; this address is used to load counters U700, U701, U702, and U703. For each block of eight samples in the video line, these counters will count up, incrementing sample count SMP[0..14].

SMP[0..14] is buffered through pipeline latches U140, U141, U240, U241, U340, and U341 to provide buses SMPA[0..14], SMPB[0..14], and SMPC[0..14] to the line RAMs. For each line count, one byte will appear from each line RAM on buses CH1L[0..39], CH1H[0..39], CH2L[0..39], CH2H[0..39], CH3L[0..39], and CH3H[0..39]. (The RAMs are nomenclated according to their function; for example, the channel 1, bit 7 RAM is U107.) The values on these buses are applied to video shifters U120, U130, U220, U230, U320, and U330. The video shifters convert the 8-bit value from each RAM to a sequence of eight one-bit values (for each RAM, DO is the first bit in the sequence, and D7 is the last). The shifted values appear on buses RAMCH1D[0..9], RAMCH2D[0..9], and RAMCH3D[0..9]. These values eventually reach the DACs through the digital board and produce corresponding analog signal levels.

Attribute RAM U705 controls the length of each video line. For each block of eight samples in the line, the attribute RAM holds one attribute byte. LINEEND\* is asserted during the last eight-sample block on the line, and causes counters U602, U603, U604, and U605 to either increment (during a frame sequence) or be loaded from the starting frame address (at the end of a frame sequence; see below). QLINEEND\* is a de-glitched version of LINEEND\* used by U406 to ensure that the FRAMECLK\* pulse does not double-clock when the counters are reloaded. RPEDGATE is asserted during blocks of eight samples which occur during the active video portion of the line; this is used to control (among other things) the pedestal gate. RPEDGATE also holds extend count EXTEND[0..2] for line stretch.

The upper byte of the frame RAMs (appearing on WFM[16..23]) is used to store frame attributes. FRAMEEND\* is asserted on the last line of each frame sequence, and causes counters U602, U603, U604, and U605 to be reloaded from U600 and U601. For static images, this occurs at the end of the single frame representing the image; for moving images, this occurs at the end of the last frame in the sequence. BEOF\* is asserted at the end of every frame in a frame sequence; this is used (among other things) to synchronize the video trigger system and the menu system to the video from the board.

During refresh mode, MODE5 is high; this cuts off Q401, which disables U409 and U410, allowing the outputs to be pulled low by R409 and R410. This ensures that all of the RAMs are enabled. RDCH\*1, RDCH\*2, and RDCH\*3 are held low during refresh mode, putting all line RAMs in read mode. RAMRD\* is also held low during refresh mode, putting the frame RAMs and attribute RAM in read mode. During power-up and power-down, BRESET\* is held low; this cuts off Q401, disabling U409 and U410. At the same time, Q400 is cut off, pulling all outputs from U409 and U410 high. This ensures that all RAMs on the board are disabled, preventing any RAM from being erroneously overwritten by the processor during this time.

U505A and U505B provide a plug-selectable delay time for the master RAM board clock. Jumpers J500 and J501 are adjusted so that the data to clock relationship at the primary DAC latches on the Output board is illustrated in Fig. 3-2.

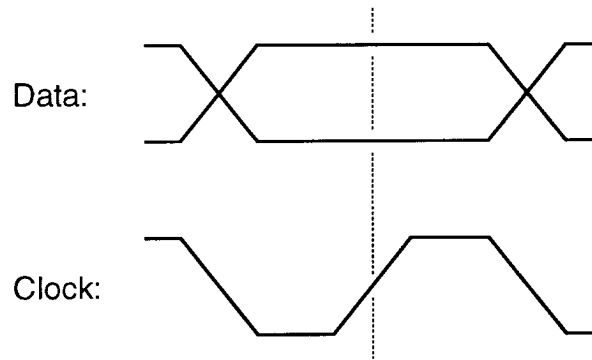


Fig. 3-3 The DAC data-to-clock relationship.

(This can be easily measured at U9-11 (data) and U9-9 (clock) on the Output board after selecting a signal from the RAM board with significant amounts of LSB change.) U500A and U500B provide buffered versions of the clock to the video shifters for the shift function. U507A provides COUNTER CLK to the ECL counter/clock divider circuit.

The output of the clock divider network depends on the value of the extension bits EXTEND<sub>x</sub> received from the attribute RAM. Each time that counter U509 counts down to value 0, this value is loaded into counter U503. The extension count determines how many clock cycles counter U509 will wait at count 4 (during which the video shift registers are loaded). If EXTEND<sub>x</sub> is 0, counter U509 will count from 7 to 0, spending one clock cycle on each count. Non-zero EXTEND<sub>x</sub> values will cause U509 to spend more than one clock cycle at count 4. For example, in D2 NTSC, one position in each line will have an EXTEND<sub>x</sub> value of 6; at this position, U509 will spend seven clock cycles at count 4. This is used to “stretch” the video line when the number of samples in the video line is not a multiple of eight (D2 NTSC has 910 samples/line).

U501 provides SHIFTL<sub>Dx</sub>\* to the video shift registers, which loads sample data from the RAMs into the shift registers. When SHIFTL<sub>Dx</sub>\* is not asserted, the shift registers shift ECL data out to the RAMCH<sub>x</sub>D<sub>x</sub> lines (starting with the least significant bit of the parallel data first). U504A provides a divide-by-8 version of the clock (CLK/8) to the TTL circuitry. U507A provides a divide-by-8 ECL clock (ECLCLK/8) to the genlock frame reset circuit.

U506A and U506B provide a plug-selectable delay time for the master RAM board genlock reset. Jumpers J510 and J511 are adjusted to the same position as J500 and J501 to give the relationship at U509 that is illustrated in Fig. 3-4 .

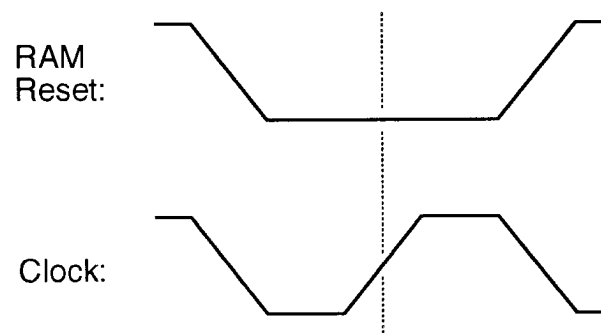


Fig. 3-4 The RAM reset-to-clock relationship.

U903A and U903B act to generate a strobe which is eight master clock periods wide, after receipt of the genlock reset pulse. This is used to reset the line and sample counters. COUNTER RESET resets the ECL clock divider, locking the phase of the clock/8 signal to the genlock pulse.

Q550, Q551, and Q552 form a battery-charge circuit for BT550. When BATT-HICHG\* goes low, Q550 and Q551 conduct. Q552 and associated circuitry form a constant-current supply to BT550. Current flows from VCC through CR553 and BT550 into the collector of Q552. When BATT-HICHG\* goes high, Q550, Q551, and Q552 are cut off; R559 then supplies a trickle-charge current to BT550. U550 is a serially-accessed analog-to-digital converter (ADC); it is used by the microprocessor to determine when BT550 has reached peak charge, at which time BATT-HICHG\* can be de-asserted. U551 provides a voltage reference to U550.

When power is off, VCC drops to 0 V. CR553 is back-biased, and the RAMs begin to drain current from BT550. CR552 ensures that the negative end of BT550 does not go more negative than about  $-0.4$  V.

## Oscillator Board (A2)

### NOTE

*This description mentions both “early” and “later” versions of the Oscillator board. Early boards have only two banks of switches for frequency selection, for oscillators 1 and 2, while later boards have switches for all three oscillators.*

*For clarity in this text, inverted signals are designated with an asterisk (for example, LBEOL\*), rather than in parentheses, as on the schematic diagrams.*

The TSG 1001 Oscillator board generates two user-selectable master oscillator frequencies, and multiplexes digital data from the Zone Plate board, RAM board, and character generator to the Output board. Fig. 3–5—on the next page—is a block diagram of the Oscillator board.

The processor interface includes U100–U109 in early instruments, U100–U111 in later. Bus ED[0..7] is the processor data bus, which is buffered by transceiver U100. Bus EA[0..15] is the processor address bus, which is buffered by U101 and U102.

The Oscillator board uses portions of both the I/O map and the memory map of the processor. The transceiver U100 is enabled when either memory access or I/O access are mapped into the board. Memory addresses [C000..FFFF] are mapped into the board if:

BA14 and BA15 are high (address in range [C000..FFFF])  
and  
MREQ\* is low (memory access)  
and  
OSC BD SEL\* is low (board selected)

In this case, OSCBDIO\* becomes asserted. I/O addresses are mapped into the board if:

RA[0..7] are correct (I/O address in range)  
and  
BIOREQ\* is low (I/O access)

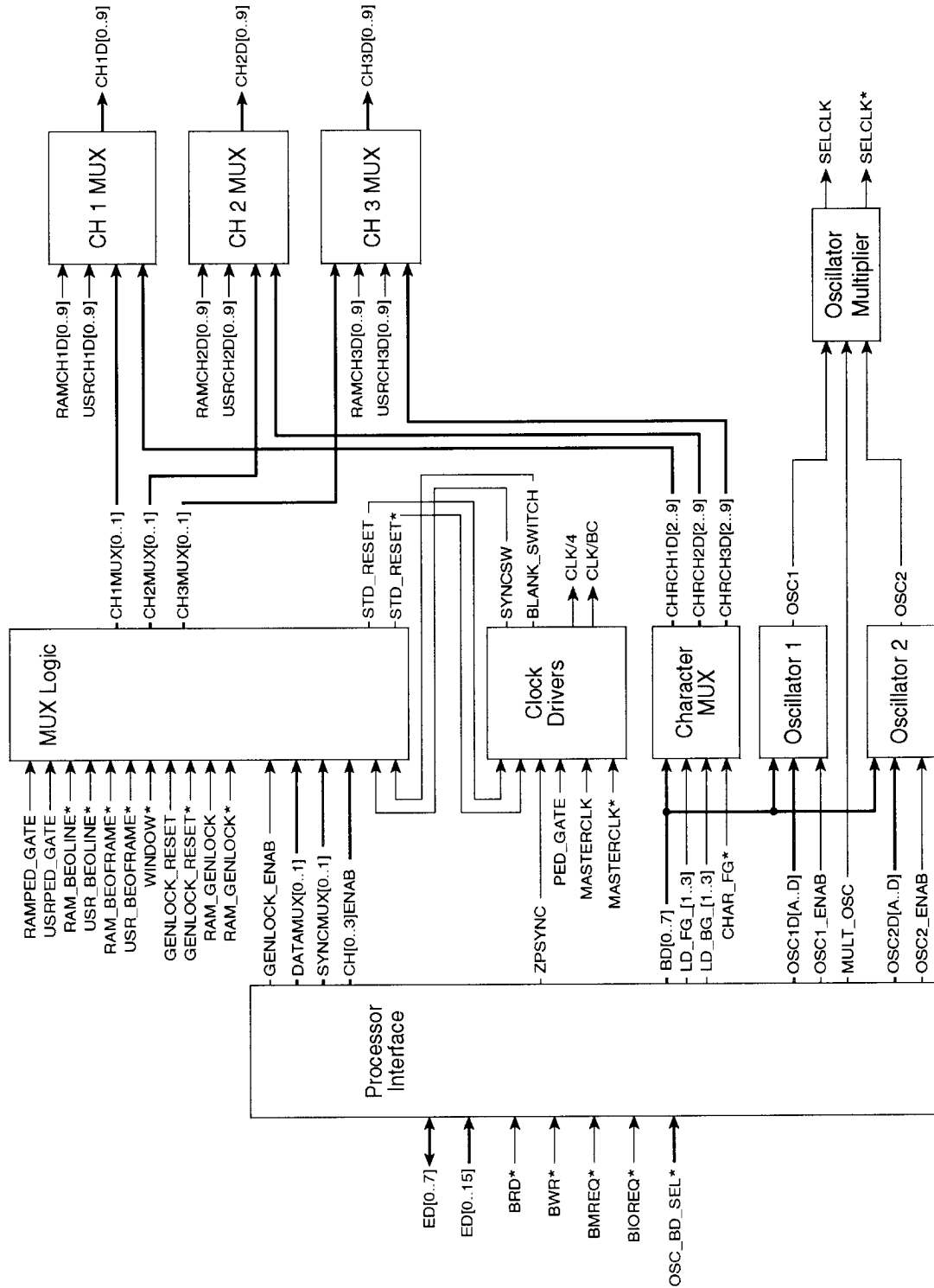


Fig. 3-5 A block diagram of the TSG 1001 Oscillator board.

U103 provides strobes to U105, U106, U107, and U108 (and U111 in later instruments) when I/O addresses matching these chips are written by the processor.

U103 also provides a chip enable to the table of contents (TOC) memory in U109 when memory addresses matching this chip are read or written by the processor. U109 identifies the board to the processor as an Oscillator board, and contains the frequency of the master oscillator on the Output board.

U105 contains the CHxENABLE bits, which turn on the corresponding channel when high. The MULTIPLY OSC\* bit causes the oscillators on the board to generate a master frequency five times the crystal frequency when the bit is low, and a master frequency equal to the crystal frequency when the bit is high.

U106 contains the DATAMUXx and SYNCMUXx bits, which control how outputs from the various boards are multiplexed together. The SYNCMUXx bits determine which board generates the non-active video section of the waveform, and the DATAMUXx bits determine which board generates the active video section of the waveform. Multiplexer settings are:

MUX code	Board
0	RAM board
1	Zone Plate board
2	RAM board
3	Character generator

The ZPSYNC bit enables sync generation when the Zone Plate board is being used (bit high). GENLOCK ENABLE enables external genlock when high. OSC1 ENAB turns on power to oscillator 1 when high; OSC2 ENAB turns on power to oscillator 2 when high. When the Output board oscillator is being used, both bits will be low.

U107 generates strobes which enable the processor to read the rotary switches encoding the frequencies of oscillator 1 and 2. U111 generates this strobe for oscillator 0 in later instruments.

U108 generates strobes which enable the processor to set the values used for generating the foreground (LD FG x) and background (LD BG x) colors used by the character generator.

Q600 and Q601 provide power to oscillator 1 when OSC1 ENAB is high; the oscillator then generates OSC1 at a frequency equal to the crystal frequency. U610A and Q602 provide a closed loop control to stabilize the temperature of the crystal oven for oscillator 1. BCD switches S600–S607 encode the frequency of the master oscillator generated by oscillator 1. Q700 and Q701 provide power to oscillator 2 when OSC2 ENAB is high; the oscillator then generates OSC2 at a frequency equal to the crystal frequency. U610B and Q702 provide a closed loop control to stabilize the temperature of the crystal oven for oscillator 2. BCD switches S700–S707 encode the frequency of the master oscillator generated by oscillator 2. On later boards, S630 through S637 encode the frequency of oscillator 0.

The OSC1 and OSC2 signals are multiplexed through CR800 and CR801. U800 buffers the signal and drives the squaring network CR804–CR807; the squaring network generates the odd-order harmonics of OSC1 or OSC2. The output of the squaring network is buffered by U801 and routed through the oscillator filter board, which passes only frequencies in the range 68–78 MHz. If the frequency of OSC1 is 14.4 MHz, the output of the Filter board will be 72.0 MHz; the BCD switches will be set to indicate 72.000000 MHz. On early boards, CR808–

CR810 act as a switch to route the non-multiplied (“X1”) version of OSC1 or OSC2; on later boards, U802A, B, and C perform this switching function.

When MULTIPLY OSC\* is low, Q100, Q101, and Q102 cause MULT OSC to be held at a high level and X1 OSC ENAB to be held at an ECL low level; this disables the X1 switch, and enables routing of the multiplied signal through U807A. When MULTIPLY OSC\* is high, Q100, Q101, and Q102 cause MULT OSC to be held at a low level and X1 OSC ENAB to be held at an ECL high level; this enables the X1 switch, and enables routing of the non-multiplied signal through U807B. U807D creates a differential version of the selected oscillator signal; this oscillator is routed to the Output board, and is multiplexed with the oscillator generated on the Output board and the external oscillator. The final version of the multiplexed oscillator from the Output board (MASTERCLK and MASTERCLK\*) is distributed by U803A, U803B, U803C, and U804B.

Clock delay adjustments (“honkers”) J900 and J901 delay the oscillator received from the Output board. The delayed version CLKC is used to clock counter U907, which provides divide-by-4 (CLK/4) and divide-by-8 (CLK/8) clocks used by the Oscillator board and the Controller board. U906, driven by CLK/8, PED GATE, and ZPSYNC, generates the sync switch timing used to turn off active video on the SYNC OUT back-panel signal, and also generates pedestal gate timing.

Latches U310, U311, U320, U321, U330, and U331 contain the DAC code equivalent to the foreground and background colors for the characters for the three channels. TTL-to-ECL converters convert the output of the latches to ECL levels, the character digital data bits CHRCHxDx, which are routed to the digital data multiplexers.

U200, U201, and U202 convert the TTL outputs from the latches in the processor interface to ECL. From these inputs, U204 generates the instantaneous multiplexer settings which select between outputs of the RAM board, Zone Plate board, and character generator. A typical setting would include code 1 on the DATA-MUXx bits (selecting active video from the Zone Plate board), and code 2 on the SYNCMUXx bits (selecting non-active video from the RAM board); in this case, U204 will generate CHxMUXx codes equal to code 1 when PED GATE is high, and code 2 when PED GATE is low.

The ECL multiplexers U410, U412, U414, U416, and U418 select between output from the RAM board (RAMCHIDx), the Zone Plate board (USRCHIDx), and the character generator (CHRCHIDx), according the settings of the CHIMUXx bits generated by U204; the design for the other two channels is identical. The output of the multiplexers, CHxDx, is routed to the Output board.

The genlock reset input GENLOCK RESET from the Output board is either passed by U204 (when GENLOCK ENABLE is high), or blocked (when GENLOCK ENABLE is low) to the RAM board. The RAM board generates a counter reset pulse on every eighth clock cycle; this pulse is distributed to the counters on the Oscillator board and Zone Plate board via U901B and U205.

## Output Board (A3)

### Overview

---

The Output board contains a number of subassemblies as follows: Three 30 MHz low-pass filters, Pedestal board, Digital Output board, crystal oscillator, oscillator filter (fosc), and a Clock Input board (located over the Controller board on the bottom of the instrument). The Output board interconnects with the Oscillator board, power supply, and Controller board via cable assemblies. Fig. 3–6 (on the next page) is a block diagram of the TSG 1001 Output board.

The Output board provides three channels each of the analog and digital test signals. The analog outputs are identical in the sense that they have the same bandwidth and dynamic range; the digital outputs are each capable of the same data rate. A given analog channel consists of a digital-to-analog converter (DAC), pedestal amp, low-pass (reconstruction) filter, and output amp. The Pedestal board provides a pedestal signal that alters the active video level, a reference level DAC (ALTREF) to change the output dynamic range of the analog signals, and a frequency modulation DAC to control the crystal timebase. The Digital Output board takes

the unbalanced data from the Oscillator board and converts it to balanced ECL. This output is a high frequency extension of CCIR Rec 601. The Clock Input board allows genlock via the SPG 1000. The clock control circuit synthesizes the system clock and allows selection of alternate clock sources.

### In Detail

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The following is a more detailed description of the Output board.

#### Analog Signal Section <1–3, 6>

(Includes Pedestal board, A7. The analog sections of the three channels are identical in most respects; channel 1 is described.)

A high-speed DAC (U6; DAC 1) receives clock, video, and a reference voltage as shown. Data comes through the data MUX and clock is sourced from the clock generator on the Output board.

The reference voltage is derived on the Pedestal board from the altref DAC (U56). This signal is scaled such that a code of \$00 produces a 700 mV video signal (with –300 mV bilevel sync) at the generator output. The pedestal DAC (U51) requires a code of \$80 to yield a video blanking level of 0 V at the generator output. If the altref DAC input is set to \$FF, and the pedestal DAC set to \$62, the output of the generator will swing from –286 mV (bilevel NTSC sync) to 1 V. This allows the output section to produce HDTV and NTSC signals.

The output of DAC 1 is passed through a 55 MHz low-pass filter to improve the IM distortion of U10. U10 sums the video from DAC 1 and the pedestal signal from U39 and U51 on the Pedestal board. The pedestal amp, U39, scaled such that no pedestal (\$80) is 0 V at U39, and full – (negative) pedestal (\$FF) is + 3.5 V at U39. R208 is a variable to allow U39 to be set at 0 V for (\$80).

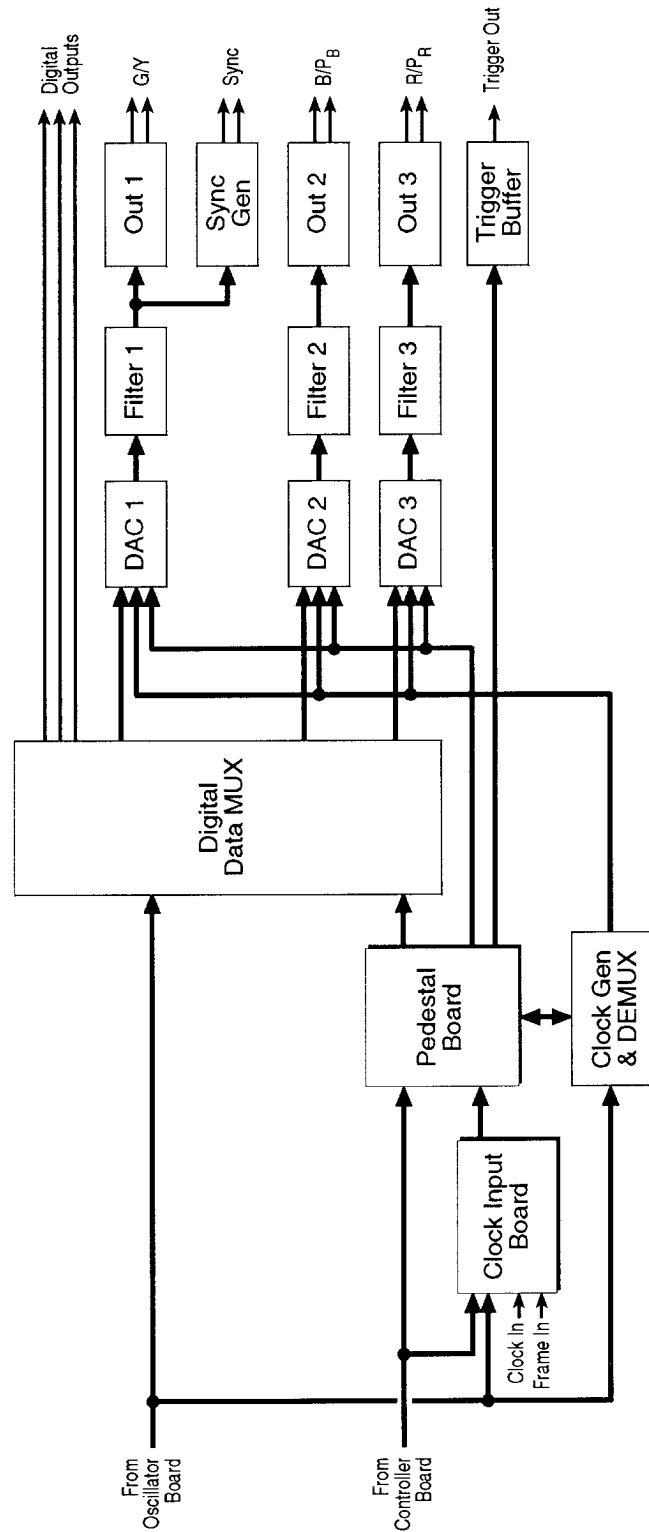


Fig. 3-6 A block diagram of the TSG 1001 Output board.



Also associated with U10 are R483 and R411. R483 is a variable to set blanking at 0 V; R411 is a variable to set the pedestal full scale swing. R41 is used to set video gain. The output of U10 is back-terminated by R412 and the scaling of U10 via R37 is set to produce video levels of  $-300$  mV (sync) and  $+700$  mV (white) at the input of the 30 MHz low-pass filter.

The filter board consists of a 30 MHz LPF with  $\sin x/x$  correction and 4.7 dB of insertion loss at DC. The output of the LPF is terminated in  $75 \Omega$  at the output amplifier, U36.

The output amplifier is scaled to compensate for the 4.7 dB insertion loss in the filter and also provides a small amount of additional  $\sin x/x$  adjustment via R210 and C177. The  $\sin x/x$  adjustment is necessary to maintain accurate signals when sampling at multiple clock rates.

### Sync Pickoff and Trigger Out <7>

A high-bandwidth video switch (U78) is toggled at the start and end of active video at line rate to remove the video, leaving only the sync pulses.

The trigger signal is sourced on the Controller board, passes through the Pedestal board, and is buffered by a push-pull amp (Q22 and Q23). The trigger out provides a field rate TTL-compatible pulse (in  $75 \Omega$ ) whose position in the field can be manipulated via the front panel.

### Clock Control <5> <9>

There are several sources for clock in the instrument. One source is the internal crystal timebase on the Output board itself. It consists of an ovenized oscillator whose fundamental output is (usually)  $1/5$  the system clock frequency. The output of the oscillator passes to a multiplier, and the fifth harmonic is stripped out using a fourth order bandpass filter (fosc board). Jumper J58 may be used to connect the VCO control line to  $+5$  V or  $-5$  V to pull the timebase approximately  $\pm 10$  ppm for implementing timebase error signal tests using TSG 1001 output.

Two more ovenized oscillators are on the Oscillator board; these oscillators are selected through the clock deMUX (U85, Output board).

Finally, an external clock can be accessed through the Clock Input board (described next). The external clock is isolated with a relay to minimize any effects of an interfering signal. This clock path is also selected through the clock deMUX. Regardless of the source, the output of the deMUX is buffered and fanned-out to produce the system clock.

### Clock Input (A8)

Clock and frame reset signals may be input either individually or as an encoded clock/frame signal. The encoded clock/frame is used to interface the TSG to the Tektronix SPG 1000 Sync Generator. In the absence of an SPG, the TSG can be genlocked by inputting appropriately-timed clock and frame signals (differential ECL).

The type of clock/frame source is chosen via the front panel. If separate clock and frame reset signal inputs are used, the clock interface passes these signals directly to the clock generator. For the encoded clock/frame path, a quadrature phase detector is used to separate clock from frame reset. The frame reset signal can be divided by a frame counter to allow synchronization with multi-frame sequence signals such as moving test patterns.

## Troubleshooting the Output Board

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The following are some symptoms/solutions for diagnosing an Output board. The discussion assumes that a GBR format has been selected.

1. Front-panel buttons react with ~3 sec delay.

Check the clock test point (J73) for clock. If no clock is present, check the clock deMUX (U85) for the proper path. Check for clock/5 on (W1). Check DOUG CLK and CLOCK1 sources.

2. Video levels wrong on analog outputs.

Select the test signal “black.” Check the pedestal test points (P1, P2, and P3) with a DVM for zero volts (no pedestal selected). If necessary, adjust (R10, 208, 227) (Pedestal board) for 0 V. If this cannot be done, suspect the pedestal DAC, or pedestal amp (U5, 39, 43) (Pedestal board). Pedestal output at the ped test points should run from  $\sim -3.5$  V to  $+3.5$  V as the pedestal level is varied from upper to lower limits.

If the above proves satisfactory, proceed to the Output board. Set the generator for a suitable full scale signal such as “White.” The Pedestal board can be physically removed from the Output board, providing the connections to the Controller and Output boards (*except* APED1, APED2, APED3, and ALTREF) are maintained. This will allow the Pedestal board to be swung away from the Output board. Place plug jumpers on the square pins APED1, APED2, and APED3 (J63, 65, 66) (Output board) and leave ALTREF (J68) (Output board) open-circuited. Check pin 6 of (U11, 17, 23) for a voltage between .9 and  $-1.1$  volts. A small voltage will produce a small video output; a large voltage will latch up the video DAC. Check the output of (U10, 16, 22) for video that is twice the normal dynamic range. Try swapping the DAC and filter. For low frequency signals such as “White,” the low frequency components measured at pin 3 (U1, 36, 40) should be  $-4.7$  dB ( $\sim 58\%$ ) of normal level.

3. Excessive 2T30 pulse ringing or “fur” on 30 MHz sweeps.

This can be caused by insufficient clock-to-data timing (anywhere), usually at the video DACs. Also check the clock test point (J73) with a spectrum analyzer for a S/N of at least 35 dB.

4. No trigger out.

Check for a trigger signal on J3-27 and J2-20 on the Pedestal board. This is a frame-rate signal, so some experimentation with scope triggering and the use of a hood (for non-MCP scopes) may be necessary. At the above location, the level is TTL with a duration of 50 ns. Trace this to Q22, 23 (output) and ensure that the connection to the back panel is secure.

5. No sync out.

First make sure that the green channel is working with correct amplitudes. If sync is absent from J22 (sync output between the red and blue outputs), check for a plug on J23-1, 2 (output). Pin 19 (U78) should have  $\sim 58\%$  of the green channel video levels. Pin 17 (U78) should be at  $\sim 0$  V and variable with R449. R404 and R410 are used to trim the sync levels.

## Power Supply (A4)

The TSG 1001 power supply is a “buck-fed inverter switching power supply”; it consists of a buck-type preregulator driving an inverter. The input is line voltage (either 230 VAC at 50 Hz or 115 VAC at 60 Hz). The outputs are DC voltages of  $\pm 5$  V,  $\pm 12$  V, and  $-2$  V.

The secondaries of the supply have over-current and over-voltage protection. The  $\pm 12$  V supplies are current-limited by their respective linear regulator ICs (U350 and U356). The other supplies have current- and voltage-limits which shut the power supply down in case of a fault.

### WARNING

***All primary voltages are referenced to a floating ground, not chassis ground. An isolation transformer or differential amplifier is required to troubleshoot the pulse width modulator (PWM) and supporting circuits.***

### Input AC to DC Converter

This circuitry filters and rectifies the input AC voltage, placing approximately 320 VDC across capacitors C512 and C711.

The line current flows through line filter FL605, fuse F805, power switch S905, and EMI filter (L825 and C926), and is applied to the rectifiers (CR828, CR823, CR825, and CR821). Line selector switch (S825) selects between 115 V and 230 V operation.

If S825 is set to the 230 V position, the rectifiers act as a full-wave bridge rectifier and C512 and C711 appear in series. The rectifiers charge the capacitors to the peak voltage (approximately 320 V).

If, however, S825 is set to the 115 V position, the rectifiers and the capacitors act as a half-wave rectifier and voltage doubler. During the positive half-cycle of the AC input, current flows through CR828 and charges C711 to the peak voltage. During the negative half-cycle, current flows through CR823 and charges C512 to the peak voltage. This process charges each capacitor to the peak voltage of the input. Thus, the total voltage across the series combination of the capacitors is the same as in 230 V operation described above.

E924 and E921 limit voltage surges on the input that might pass the line filter. RT925 and RT924 limit the inrush current to the capacitors when the supply is first switched on. Resistor R721 discharges C711 and C512 when power is off.

T725, C624, C623, and C522 form a common-mode and differential-mode filter to prevent switching noise from being conducted out of the instrument through the line cord.

R509, C506, and DS509 form a relaxation oscillator which causes DS509 to blink when the instrument is switched on.

Thermal switch S423 monitors the temperature of the power supply heat sink. If the instrument overheats, switch S423 opens and disconnects the primary voltage from the switching circuitry. Fuse F530 will disconnect the primary voltage in the event of a short in the switching circuitry.

## Housekeeping Supply

The housekeeping supply provides power to start and maintain oscillation of the PWM and the power inverter as long as the input voltage is sufficient to maintain output voltage regulation.

When the primary voltage first rises, R412 charges capacitor C220. This voltage is applied to a comparator consisting of Q317, VR318, R410, and R313. When the voltage on C220 reaches about 26 V, Q317 turns on, providing base current for Q415. Q415 saturates and applies voltage to a DC regulator consisting of Q316, VR310, R310, and R311. The 11.5 V output of the regulator supplies power to the control circuitry.

R312 provides hysteresis for comparator Q317. Q317 switches on at about 26 V, but, once on, does not switch off until the voltage at C220 drops below about 10 V, due to the extra base current supplied by R312.

After the supply is operating, a winding off of the buck inductor T344 supplies the housekeeping current through CR345. Jumper P340 can be used to disable this housekeeping supply current for troubleshooting purposes.

## Buck Preregulator

The buck preregulator consists of Q229, Q234, T344, CR337, and associated components. The function of the preregulator is to provide a regulated voltage of about 150 VDC to pin 2 of T640. Since T640 is operated at a constant 50% duty cycle on each half of the primary, the secondary outputs of T640 are constant despite variations in load, AC input voltage, and temperature.

Q234 and Q229 are switched on alternately for a time determined by the PWM (U116), applying a rectangular-wave voltage to one side of T344. T344, T640, and capacitors C454, C458, C846, and C848 form a low-pass filter that smooths the rectangular waveform on one side of T344 to essentially DC at T640 pin 2. The capacitance at pin 2 is the capacitance on the secondaries reflected over to the primary side. In this manner, T640 is current- rather than voltage-driven, and is less susceptible to problems of core saturation. CR337 conducts to form a path for the current flow through T344 when both Q224 and Q234 are off.

The regulated DC output voltage of the buck regulator is applied to the power inverter through jumper P439, which can be removed for troubleshooting.

## Power Inverter

The power inverter, consisting of T640, Q427, and Q432, converts the 150 VDC at pin 2 of T640 to a lower voltage square wave on the secondaries of T640. The secondary voltages are rectified and filtered to produce DC outputs. T640 also provides isolation between primary and secondary circuits.

The power inverter FETs (Q437 and Q432) alternately place 150 VDC across each half of the center-tapped primary of T640 so that each half primary sees a square wave of 50% duty cycle. This high-voltage square wave on the primary is transformed by the turns ratio of T640 to a lower voltage square wave on the secondaries.

Q427 and Q432 are driven by 50% duty cycle pulses generated by U127A and U132B, and buffered by U125.

## Control Circuitry

The +5 V output is directly regulated by the control loop. The other output voltages are set by the transformer turns ratio, and, in the case of  $\pm 12$  V, by linear regulators.

Regulation is accomplished by a feedback scheme called current-mode control, and the PWM (U116) is called a current-mode controller. In current-mode control—as applied to a buck regulator—a signal that has been derived from the output voltage directly controls the peak current in the inductor. Thus, two signals are used to control the output voltage, and there are two feedback paths: one with current, the other with voltage.

In the TSG 1001 supply, current through T344 is sensed by R421 and fed back to pin 4 on U116. A voltage ramp is added to this signal at pin 4 through Q214. Without this ramp, the control loop could be unstable at greater than 50% duty cycle. Primary current limit is also accomplished by the current loop. U116 shuts the drive pulses to the FETs off (pins 11 and 14) if the signal at pin 4 ever gets too high.

The voltage loop is from the +5 V output through error amplifier U147B, through optoisolator U141, and into pin 6 of U116.

## Outputs

The +12 V and –12 V outputs are derived from one of the secondaries of T640. The center-tapped secondary feeds a full-wave rectifier (CR651, CR655, CR653, and CR657). The rectified voltage is filtered with an L-C pi filter.

The unregulated voltages provide power for the cooling fan.

The  $\pm 12$  V supplies are regulated by ICs (U350 and U356). These ICs provide voltage and current limits internally.

The +5 V and –5 V outputs are derived from another T640 secondary. The center-tapped secondary feeds a full-wave rectifier (CR834, CR934, CR734, and CR944). The rectified voltage is filtered with a pair of L-C filters.

The +5 V output current is sensed by the voltage drop across R767 and the –5 V current is sensed by R867. U689B and 789A detect over-current conditions on the +5 V and –5 V supplies, respectively, and shut down the buck regulator and the power inverter through optoisolator U143. U127B provides a delay so the power supply stays in current limit for approximately 100 ms before shutting down.

The –2 V supply is generated from another secondary. The voltage is rectified by CR658 and CR755 and smoothed by an L-C filter.

U589 monitors the  $\pm 5$  V and –2 V output voltages. If the voltage rises too high, the buck regulator and the power inverter are shut down.

## **Warning**

*The following servicing instructions are for use only by qualified personnel. To avoid personal injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer to General Safety Summary and Service Safety Summary prior to performing any service.*







# Section 4

## Performance Verification

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### Performance Verification List

This list may be used by those familiar with verifying the performance of Tektronix TSG 1000 family instruments. Step-by-step procedures begin on page 3. The order of verification is not important; the sequence used in this section is intended to minimize changes in equipment setup. Always be sure that the test equipment and the TSG 1001 has reached normal operating temperature before beginning any of these procedures.

1. **Oscillator Frequencies**  
( $\pm 1$  ppm, page 4–3)
2. **Blanking levels**  
( $0.0 \pm 50$  mV, page 4–4)
3. **Line tilt**  
( $\leq 0.5\%$ , page 4–5)
4. **Field tilt**  
( $\leq 0.5\%$ , page 4–5)
5. **Spurious signals**  
( $\leq 5$  mV to 30 MHz;  $\leq 7$  mV, 30 to 100 MHz; page 4–5)
6. **Pulse-to-bar ratio**  
(1:1  $\pm 1\%$ , page 4–6)
7. **Sine-squared pulses**  
(HADs accurate within  $\pm 2$  ns, page 4–7)
8. **Frequency response**  
( $\pm 1\%$  to 20 MHz;  $\pm 2\%$  to 30 MHz, page 4–8)
9. **Channel-to-channel delay**  
( $\pm 1$  ns maximum, page 4–9)
10. **Amplitude:**  
Accuracy ( $\pm 1\%$ , page 4–11)  
Channel match ( $\pm 0.5\%$ , page 4–11)
11. **Group delay distortion**  
( $\leq 3$  ns to 20 MHz,  $\leq 5$  ns 20 to 25 MHz, page 4–11)
12. **Return loss**  
( $\geq 35$  dB down to 30 MHz, page 4–13)

## Required Equipment

Table 4-1 lists the equipment required for performance verification. Accuracy of alternate equipment should equal or exceed that of the example instruments and accessories. Using inadequate equipment may result in inaccurate measurements.

Table 4-1 Recommended test equipment and accessories.

Item	No.	Requirements	Example
Tektronix SDP1000 Signal Development Package	1	V2.4 or later.	
IBM-compatible Personal Computer	1	To run the SDP1000; a "286" or better with a math coprocessor is recommended.	
HDTV Waveform Monitor	1	For displaying 1050, 1125, or 1250 line waveforms.	Tektronix 1730 HD
Video Amplitude Calibration Fixture (VAC)	1	Provides a chopped voltage reference accurate to 0.05% from 0 to 1 V in 0.1 mV increments.	Tektronix p/n 067-0916-00 (plugs into TM500/5000 series power module)
Test Oscilloscope	1	Min. bandwidth: 300 MHz at 5 mV/div. 100 MHz bandwidth limit. Min. vertical deflection factor: 2 mV/div. Time Base range: 2 ms–1 $\mu$ s/div.	Tektronix TDS 540 Digitizing Oscilloscope or Tektronix 11403A oscilloscope with 11A32 plug-in amplifier
Peak-to-Peak Detector	1	Flat response $\pm 0.2\%$ to 20 MHz, $\pm 0.5\%$ to 30 MHz.	Tektronix p/n 015-0408-00 with 015-0413-00 detector head
Frequency Counter/Timer	1	Accurate to $\pm 2.5$ Hz in 75 MHz (in ratio A/B mode).	Tektronix DC503A
Network Analyzer/Reflectometer	1	75 $\Omega$ . Capable of return loss (S <sub>11</sub> ) and delay (S <sub>21</sub> ) measurements from 300 kHz to 30 MHz.	Hewlett-Packard 8753C Network Analyzer with 85046B S-Parameter test kit.
BNC-to-Pin Tip adapter		For verifying oscillator frequencies.	Tektronix p/n 175-1178-00
75 $\Omega$ type N-to-BNC adapter	2	Necessary for type N network analyzer ports.	
75 $\Omega$ End-line termination	2	.025% precision recommended.	Tektronix p/n 011-0102-01
75 $\Omega$ Feed-through termination	2		Tektronix p/n 011-0103-00
75 $\Omega$ BNC coax cables	2		Tektronix p/n 012-0074-00
BNC-to-2 Pin coax cable	1	For group delay measurements.	Tektronix p/n 174-1770-00
Female-to-female BNC connector	1	For group delay measurements.	Tektronix p/n 103-0028-00

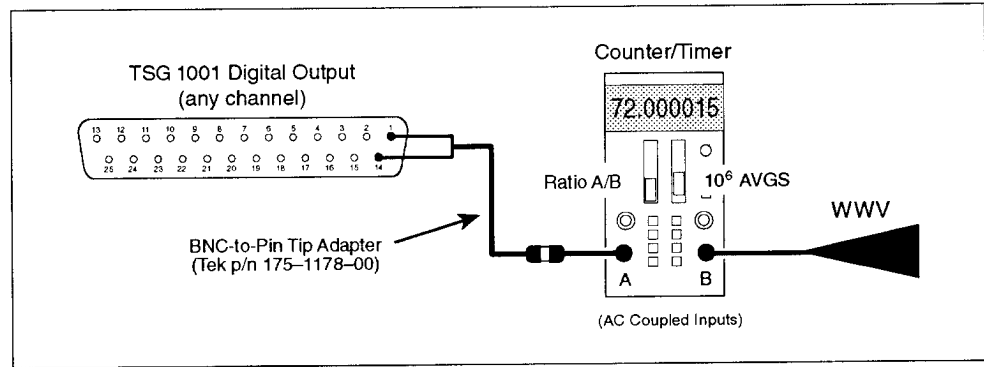


Fig. 4-1 A setup for checking the oscillator frequencies.

## 1. Oscillator Frequencies

### NOTE

After initial setup or long storage, allow a two-hour warm up to re-age the crystals. Thereafter, 30 minutes warm up is sufficient.

- Connect a Counter/Timer to one of the digital video outputs of the instrument as shown in Fig. 4-1.
- Consult Table 4-2 and identify the three oscillator frequencies installed in the TSG 1001.
- Select one of the frequencies and, if necessary, download a test signal or signal set (from a PC to the TSG with COM1000, which is part of the SDP-1000) in a format that uses that frequency.
- VERIFY** that the frequency measured by the counter/timer falls within the acceptable range for the particular oscillator.
- Repeat steps c and d for each of the two remaining oscillators.

Table 4-2 Available TSG 1001 frequencies.

Scanning Standard or Format	Sampling Freq. (MHz)	Range of Acceptable Frequencies (MHz)
D2 NTSC	14.318182	14.318168-14.318196
525/59.94/2:1 D1 625/50/2:1 D1 (option PGFD1)	27.000000	26.999974-27.000027
NTSC 525/59.94/1:1 525/59.94/2:1 625/50/1:1 625/50/2:1 1050/59.94/1:1 1050/59.94/2:1 1250/50/1:1 1250/50/2:1	72.000000	71.999928-72.000072
1125/60/2:1	74.250000	74.249926-74.250074
787/59.94/1:1	75.335664	75.335589-75.335739

## 2. Blanking levels

- a. From a PC running COM1000 (an SDP1000 utility), download one of the signal sets listed in Table 4-3 into TSG 1001 memory. Then use the TSG-1001 FORMATS button, if necessary, to select the GBR signal format.

Table 4-3 Signal sets suitable for most verification procedures.

Signal Set Download File	Scanning "Standard"	Oscillator Freq. (MHz)
lib1050i\dnl1050i lib1250i\dnl1250i	1050/59.94/2:1 1250/50/2:1	72.000000
lib1125i\dnl1125i	1125/60/2:1	74.250000

- b. Select the Black Field test signal with the TSG FLAT FIELD button.
- c. Connect the test equipment as shown in Fig. 4-2; adjust the oscilloscope to the settings listed in Table 4-4.

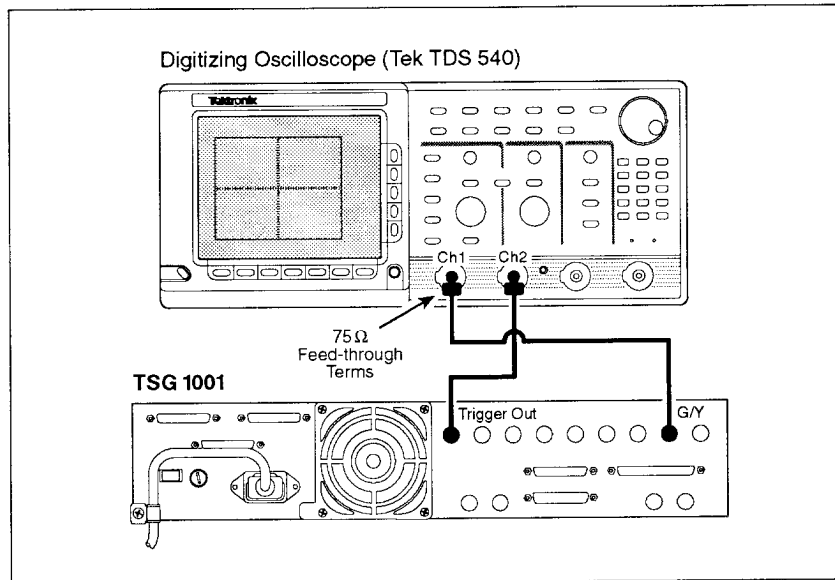


Fig. 4-2 The initial setup for verification procedures 2-7.

Table 4-4 Initial oscilloscope (TDS 540) settings for verifying blanking levels.

<b>Trigger Menu</b>		<b>Vertical Menu</b>	
Type .....	Edge	Coupling .....	DC
Source .....	CH1	Bandwidth.....	Full
Coupling.....	DC	Fine Scale .....	50 mV/div
Slope.....	Positive	Position.....	0 div
Level.....	0 mV	Offset .....	0 mV
<b>Horizontal Menu</b>		<b>Acquisition Menu</b>	
Time Base.....	Main	Mode .....	Sample or Hi Res
Trigger Position.....	50%	Repetitive Signal.....	ON
Record Length.....	1000 pts		
Horiz. Scale.....	5 $\mu$ s/div		

- d. Toggle the oscilloscope coupling (in the Vertical menu of the TDS 540) between DC and GND. **VERIFY** that the blanking level of the TSG 1001 output is  $0\text{ V} \pm 50\text{ mV}$  (use the vertical position control to place the GND trace on the 'scope graticule; the signal blanking level and the GND trace must be within one vertical division of each other).
- e. Move the cable to each of the remaining analog video outputs (G/Y, B/P<sub>B</sub>, R/P<sub>R</sub>, and Sync) in turn and **VERIFY** that the blanking level of each is  $0.0\text{ V} \pm 50\text{ mV}$ .

### 3. Line tilt

- a. Begin with the setup and settings used in the previous procedure. Re-connect the cable to the first G/Y output.
- b. Select the White Field test signal with the TSG FLAT FIELD button.
- c. At the oscilloscope:
  - change the vertical offset to 700 mV,
  - change the vertical scale to 10 mV/div, and
  - select “Hi Res” acquisition mode
- d. Adjust the vertical and horizontal position controls to center the white level of the test signal on the oscilloscope display. **VERIFY** that the top of the white bar “tilts” no more than  $\pm 3.5\text{ mV}$  over its duration.
- e. Move the cable to one output of the remaining analog video channels (B/P<sub>B</sub> and R/P<sub>R</sub>) in turn and **VERIFY** that the line tilt is no more than 0.5% ( $\pm 3.5\text{ mV}$ ).

### 4. Field tilt

- a. Continue with the setup, settings, and test signal used in the previous procedure. Re-connect the cable to the first G/Y output. Change the horizontal scale of the oscilloscope to 2 ms/div.
- b. Adjust the trigger holdoff (on the Trigger menu of the TDS 540) to stabilize the trace, or trigger on the channel 2 input—the “trigger” signal from the TSG 1001.
- c. Align the top, white level, of the field trace with the display graticule. **VERIFY** that any field tilt is less than  $\pm 3.5\text{ mV}$ .
- d. Move the cable to one output of each remaining analog video channel (B/P<sub>B</sub> and R/P<sub>R</sub>) in turn and **VERIFY** that the field tilt is no more than 0.5% ( $\pm 3.5\text{ mV}$ ).

### 5. Spurious signals (noise)

#### NOTE

*A TDS 540 set to full bandwidth and 5 mV/div will show noise at full amplitude to approximately 165 MHz; an 11403A/11A32, to approximately 115 MHz. Either instrument, bandwidth-limited to 100 MHz, will reveal full-amplitude noise from DC to at least 30 MHz.*

*Both instrument covers must be in place for accurate noise measurements.*

- a. Begin with the setup and settings used in the previous procedure. Select the Black (or “Flat Field 0%”) signal with the FLAT FIELD button of the TSG 1001. Re-connect the cable to the first G/Y output.

- b. At the oscilloscope:
  - Change the horizontal scale of the oscilloscope to 5  $\mu\text{s}/\text{div}$  and the vertical offset to 0 V.
  - With the keypad, set the vertical scale to 7 mV/div. (If this feature is not available, use the appropriate controls to set the vertical scale to 5 mV/div.)
  - Change the trigger source to Ch2, and adjust the trigger and position controls to view one line of the TSG output.

The external, once-per-frame trigger is necessary to isolate one line of active video and prevent the “intrusion” of vertical interval information during the noise performance checks.

- c. If a vertical interval line is visible on the oscilloscope, use the TSG 1001 TRIGGER button and selector knob to choose one of the active video lines. Note that as long as the TRIGGER button of the TSG is lighted, the indicated line will contain a White level signal instead of Black, and all other active lines will have a “spike” at the horizontal location of the trigger.
- d. Through the oscilloscope’s Display menu, select the Dots display style. Then use the vertical position control to center the horizontal portion of the waveform on the graticule.
- e. Change the display style to Infinite Persistence. Adjust the waveform and graticule brightness as necessary to differentiate the waveform data points from the graticule. Allow data points to accumulate for several minutes and **VERIFY** that any spurious signals are  $\leq 7$  mV above or below blanking.
- f. At the oscilloscope:
  - Set the bandwidth limit of the oscilloscope to 100 MHz;
  - change the vertical scale to 5 mV/div;
  - select the Dots display style; and
  - use the vertical position control to re-center the waveform on the graticule, if necessary.
- g. Change the display style to Infinite Persistence. Allow data points to accumulate for several minutes and **VERIFY** that any spurious signals are  $\leq 5$  mV above or below blanking.
- h. Move the cable to each of the remaining analog video outputs (G/Y, B/P<sub>B</sub>, R/P<sub>R</sub>, and Sync) in turn and repeat the noise checks. **VERIFY** that noise is  $\leq 5$  mV to 30 MHz (100 MHz ’scope bandwidth) and  $\leq 7$  mV to 100 MHz (350 MHz or greater bandwidth) on each output.

## 6. Pulse-to-bar ratio

- a. Continue with the equipment setup shown in Fig. 4–2, and select the 2T30 Pulse & Bar test signal with the PULSE AND BAR button of the TSG 1001. Re-connect the cable to the first G/Y output.
- b. Adjust the oscilloscope to the settings listed in Table 4–5.
- c. Use the vertical position control of the oscilloscope to place the tip of the mid-bar (inverted) 2T pulse on the ’scope graticule.
- d. Change the horizontal scale of the oscilloscope to 2  $\mu\text{s}/\text{div}$ . **VERIFY** that the center of the bar base (blanking level) is within 7 mV of the 2T30 pulse tip. Note that the pulse tip will not be visible at 2  $\mu\text{s}/\text{div}$  when the ’scope is in high resolution acquisition mode.

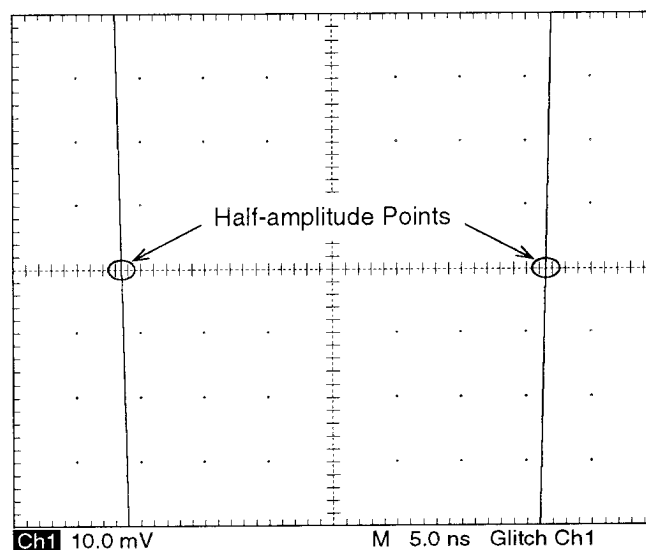
**Table 4-5** Initial oscilloscope (TDS 540) settings for verifying pulse-to-bar ratio.

<b>Trigger Menu</b>		<b>Horizontal Menu</b>	
Type .....	Pulse	Time Base .....	Main
Class .....	Glitch	Trigger Position .....	50%
Source .....	CH1	Record Length .....	1000 pts
Polarity .....	Negative	Horiz. Scale .....	20 ns/div
Width .....	50 ns		
Glitch .....	Accept	<b>Vertical Menu</b>	
Level.....	100 mV	Coupling .....	DC
		Bandwidth.....	Full
<b>Acquisition Menu</b>		Fine Scale .....	10 mV/div
Mode .....	Sample or Hi Res	Position .....	0 div
Repetitive Signal .....	ON	Offset .....	700 mV

- e. Move the cable to one output of each remaining analog video channel (B/P<sub>B</sub> and R/P<sub>R</sub>) in turn and **VERIFY** that the pulse-to-bar ratio on each is 1:1 within 1% (7 mV).

**7. Sine-squared pulses**

- a. Begin with the setup, settings, and pulse and bar test signal used in the previous procedure. Re-connect the cable to the first G/Y output. Change the oscilloscope vertical offset to 350 mV and horizontal scale to 5 ns.
- b. Center the trace (two nearly-vertical lines) horizontally on the oscilloscope display. Use the graticule or the “V bars” cursor to **VERIFY** that the half-amplitude duration (HAD) of the 2T30 pulse is between 31.3 and 35.3 ns (see Fig. 4-3).
- c. Move the cable to one output of each remaining analog video channel (B/P<sub>B</sub> and R/P<sub>R</sub>) in turn and **VERIFY** that the HAD of the 2T30 pulses is 33.3 ns, ±2 ns.



**Fig. 4-3** Checking the duration of an inverted 2T30 sine-squared pulse.

## 8. Frequency response

- a. Connect the test equipment as shown in Fig. 4–4. Connect the peak-to-peak detector head directly to one of the TSG 1001 G/Y outputs. *Do not* terminate the 75 $\Omega$  cable at the oscilloscope input. Enable the + input of the peak-to-peak detector and adjust the oscilloscope to dc coupled, 5 mV/div vertical resolution, and 2 ms/div horizontal.
- b. At the TSG 1001 front panel:
  - Select the Zone Plate signal set with the SIGNAL SETS button.

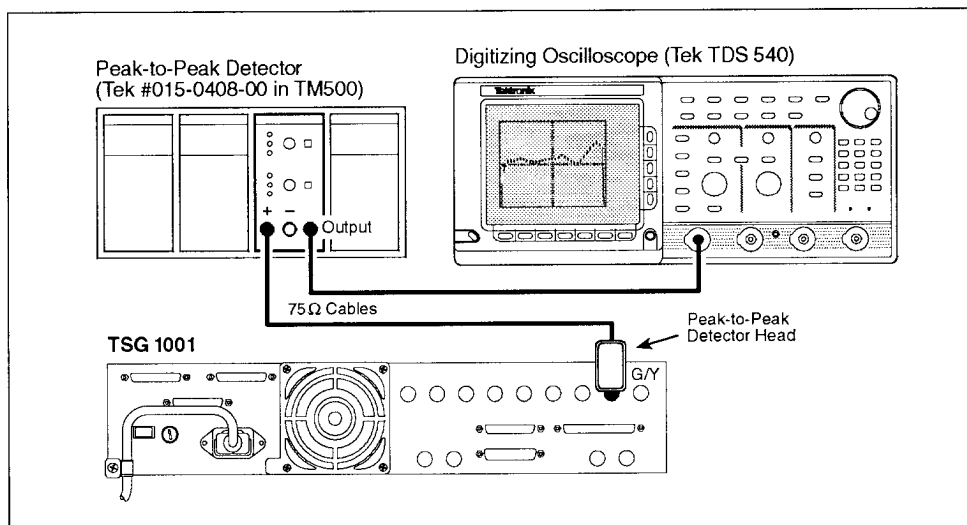


Fig. 4–4 A setup for verifying frequency response of the TSG 1001.

- Through the MONITOR SETUP button, select the Horizontal Sine zone plate pattern. Turn the TSG knob to adjust the horizontal sine frequency to 20 MHz.
  - Press the SWEEP/PARAMETERS button repeatedly until the readout displays the K<sub>X</sub>: H FREQ parameter in c/aph (cycles per active picture height). Note the value of K<sub>X</sub>.
  - Through the MULTIPULSE/USER ZONE PLATES button, select the Blank Zone Plate.
  - Use the SWEEP/PARAMETERS button to select the “K<sub>XY</sub>: V CH H FREQ” (K<sub>XY</sub>, or vertical change in horizontal frequency) zone plate parameter.
  - With the knob, adjust K<sub>XY</sub> to the previously noted K<sub>X</sub> value. The generator will output a “Field Sweep” signal that sweeps from dc at the top of the picture to 20 MHz at the bottom.
- c. Adjust the + input level of the peak-to-peak detector to illuminate the green (middle) LED, and adjust the oscilloscope to view the output of the peak-to-peak detector. The trace will resemble Fig. 4–5. Position the trace to place the minimum or maximum amplitude on the graticule, as shown.
  - d. Use the oscilloscope graticule—or voltage cursors, if available—to **VERIFY** that the top of the trace is flat within 7 mV (1%). Ignore the region of sharp drop-off that corresponds to the vertical interval.
  - e. Move the peak-to-peak detector head to one of the B/P<sub>B</sub> outputs and repeat steps c and d.



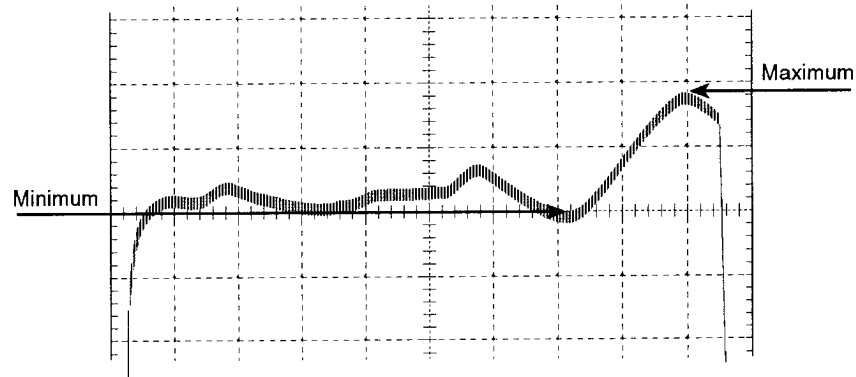


Fig. 4-5 One field of a field sweep zone plate as “seen” through a peak-to-peak detector.

- f. Move the peak-to-peak detector head to one of the R/P<sub>R</sub> outputs and again repeat steps c and d.
- g. Use the knob of the TSG 1001 to adjust K<sub>XY</sub> to 1.5 times the 20 MHz setting. The TSG 1001 will now output a “Field Sweep” signal that sweeps from dc to 30 MHz.
- h. If necessary, adjust the peak-to-peak detector and the oscilloscope to view the output of the peak-to-peak detector as before.
- i. Position the top of trace on the oscilloscope to a major graticule division line and **VERIFY** that the top of the trace is flat within 14 mV (2%). Again, ignore the region of sharp drop-off that corresponds to the vertical interval.
- j. Repeat steps h and i with the peak-to-peak detector attached first to one of the B/P<sub>B</sub> outputs, and then one of the G/Y outputs.

## 9. Channel-to-channel delay

- a. Connect the equipment as shown in Fig. 4-6.
- b. Use COM1000 to download one of the Signal Sets listed in Table 4-6 from a PC to TSG 1001 memory.

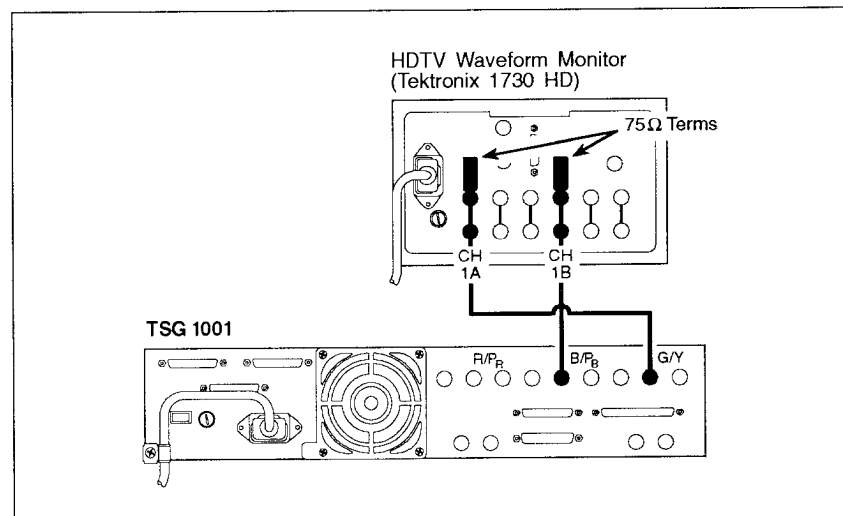


Fig. 4-6 A setup for checking inter-channel timing.

Table 4-6 Signal Sets with suitable “Bowtie” timing signals.

Signal Set Download File	Scanning “Standard”	Oscillator Freq. (MHz)
lib1050i\ndl1050i lib1250i\ndl1250i	1050/59.94/2:1 1250/50/2:1	72.000000
lib1125i\ndl1125i	1125/60/2:1	74.250000

Table 4-7 Initial Tektronix 1730HD settings for checking inter-channel timing.

Front Panel	Menu Settings
Input ..... CH1 A	Lines/Frame .....
REF ..... CH1	..... match TSG “standard”
Vert. Gain ..... OFF	Subtract (1B) ..... YES
Vert. Filter ..... FLAT	Offsets ..... Disabled
Horizontal ..... ONE/LINE	Ext Horiz ..... NO

- c. Adjust the waveform monitor to the settings listed in Table 4-7.
- d. Select the “Bowtie; 1ns Markers” signal with the TIMING SIGNALS button of the TSG 1001.

The bowtie test signal has a 5.000 MHz sine wave on the G/Y channel, and 5.002 MHz sine waves on the remaining channels. The 90° phase timings of the three sinusoids should be identical; if they are, subtracting either the B/P<sub>B</sub> or R/P<sub>R</sub> signal from the G/Y signal will leave a bowtie-shaped remainder, with the narrowest section, or “knot,” centered on the video line. The signal also includes markers that are used to measure the timing error. If the knot is not centered, but rather three markers to the left or right of center, for example, the mistiming is 3 ns.

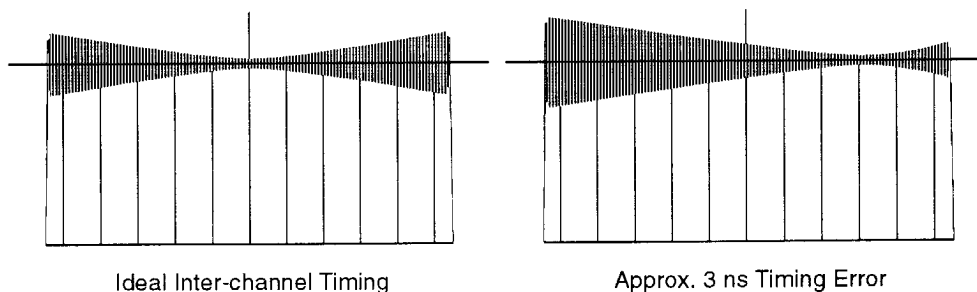


Fig. 4-7 Interpreting the CH1A-CH1B bowtie trace.

- e. Adjust the waveform monitor, if necessary, to view the CH1A-CH1B waveform and markers. **VERIFY** that the narrowest portion of the bowtie-shaped waveform is no more than 1 marker division to the left or right of the taller center marker (see Fig. 4-7).
- f. Move the cable from the B/P<sub>B</sub> output of the TSG 1001 to the R/P<sub>R</sub> output. **VERIFY** that the inter-channel timing error is no more than 1 ns.

### 10. Amplitude accuracy

- a. Begin with the equipment setup shown in Fig. 4–8. Select the White Field signal with the FLAT FIELD button of the TSG 1001, and adjust the waveform monitor for the settings listed in Table 4–8.

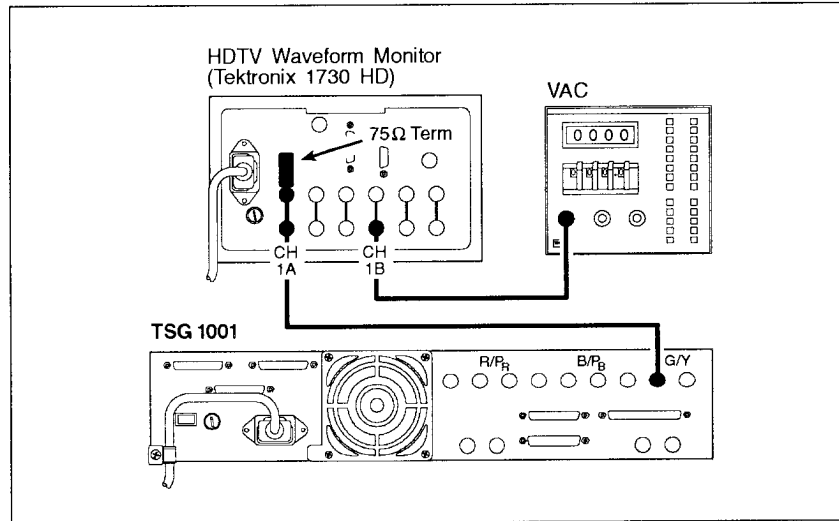


Fig. 4–8 A setup for verifying amplitude accuracy (white levels).

Table 4–8 Initial Tektronix 1730 HD settings for checking amplitude accuracy.

Front Panel	Menu Settings
Input ..... CH1 A	Lines/Frame .....
REF ..... CH1	..... match TSG “standard”
Vert. Gain ..... OFF	Subtract (1B) ..... YES
Vert. Filter ..... FLAT	Offsets ..... Disabled
Horizontal. .... ONE/LINE	Ext Horiz ..... NO

- b. Adjust the video amplitude calibration fixture (VAC) output to 700 mV, then select X5 vertical gain on the waveform monitor. Fine-adjust the output of the VAC until the blanking level of the upper waveform matches the top of the lower waveform. **VERIFY** that the VAC output is between 693 and 707 mV. Note the actual value for comparison with the two remaining video channels.
- c. Move the cable to one output of each remaining analog video channel (B/P<sub>B</sub> and R/P<sub>R</sub>) in turn and **VERIFY** that the white level of each is 700 ± 7 mV. Also **VERIFY** that the white levels of all three channels are within 3.5 mV (0.5%) of each other.

### 11. Group delay distortion

**NOTE**

*The output of the TSG 1001 typically has little group delay. The following procedure requires specialized test equipment and is to be used only if there is good reason to suspect that group delay exceeds specification.*

- a. Follow the manufacturer's directions to prepare the network analyzer for  $75\Omega$   $S_{21}$  transmission group delay measurement. Specify a frequency range from 300 kHz to 25 MHz. If possible, set a marker at 20 MHz.
- b. Connect a cable assembly as shown in Fig. 4-9 to port 1 of the network analyzer; connect a  $75\Omega$  cable to port 2.
- c. Follow the manufacturer's directions to calibrate the spectrum analyzer for group delay measurements. ("Response" calibration is appropriate for an HP 8753C.) Use a short length of solid 22 gauge wire between the two conductors of the square pin connector for "short" calibration, and connect the two  $75\Omega$  coax cables with a female-to-female barrel connector for "thru" calibration.

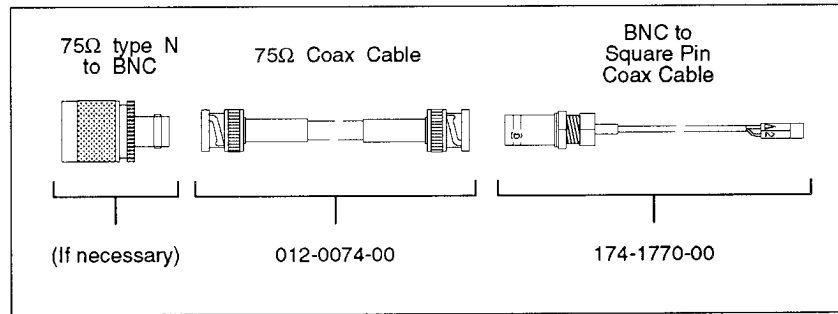


Fig. 4-9 Components (with Tektronix part numbers) of the port 1 cable assembly for group delay measurements.

- d. Remove the shield plate at the left-rear of the instrument to reveal the three piggy-back filter boards attached to the output board (see Fig. 4-10).
- e. Remove the screws that attach the G/Y filter board to the output board, and pull the filter board straight upward and off of the square-pin connectors protruding from the output board. Use wire insulation or electrical tape to insulate the pair of output board pins toward the front of the instrument, J46 and J47.

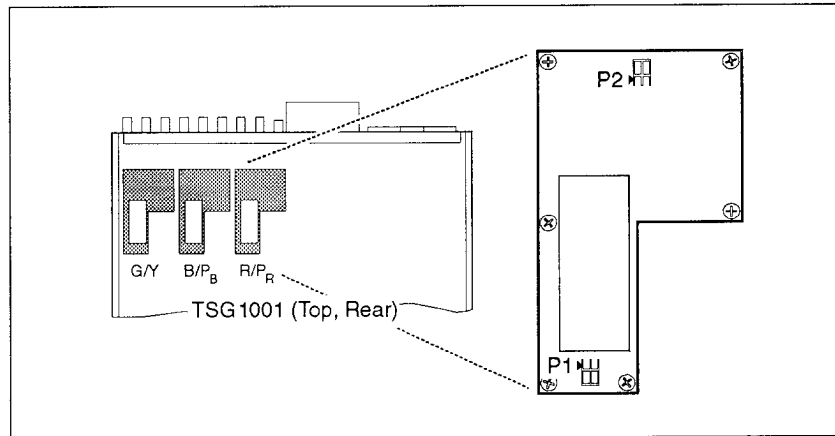


Fig. 4-10 The TSG 1001 "piggy-back" filter boards (cover shield removed).

- f. With short lengths of solid 22 gauge wire, connect the port 1 cable to P1 from the bottom of the piggy-back filter board. Orient the cable connector so that the central conductor is connected to conductor 1 (designated with the ▲ symbol) of P1, and the shield-braid is connected to conductor 2

- (ground). Reconnect P2 to output board pins J48 and J49 (the filter board must be tilted to do so).
- g. Connect the port 2 cable directly to one of the G/Y outputs of the TSG 1001.
  - h. Complete the group delay measurement. For best results, use the network analyzer's averaging (average 5 events) and smoothing aperture (2%) features, if available. **VERIFY** that the delay is no more than  $\pm 3$  ns (6 ns peak-to-peak) to 20 MHz and  $\pm 5$  ns (10 ns<sub>p-p</sub>) from 20 to 25 MHz.
  - i. Disconnect the cable from P1, remove the insulation from J46 and J47, and re-attach the channel 1 filter board to the output board.
  - j. Repeat steps e through i with the B/P<sub>B</sub> and R/P<sub>R</sub> filters, in turn. Be sure to insulate the protruding "input" pins (J50 and 51, J54 and 55) from contact with P1. **VERIFY** that group delay is no more than  $\pm 3$  ns to 20 MHz and  $\pm 5$  ns from 20 to 25 MHz.
  - k. Replace the shield plate when all three channels have been checked.

## 12. Return loss

### NOTE

*Because of the 30 MHz bandwidth and lack of loop-throughs on the TSG 1001, it is recommended that traditional equipment and methods for verifying return loss performance **not** be used. A general-purpose network analyzer is recommended for accurate measurements (see Table 4–1).*

*The impedance of the TSG 1001 outputs has been calibrated during manufacturing for best return loss performance. This procedure is unnecessary without strong evidence of improper impedance matching.*

- a. Follow the manufacturer's directions to prepare the network analyzer for 75 $\Omega$  return loss (or S<sub>11</sub>, the "complex reflection coefficient at port 1") measurements. Specify a frequency range to 30 MHz and place a reference marker, if possible, at 35 dB down.
- b. Use a 75 $\Omega$  type N-to-BNC adapter, the cable which will be connected to the PE 1000 outputs, and a 75 $\Omega$  BNC calibration kit appropriate to the spectrum analyzer and test set.
- c. From a PC running COM1000 (an SDP1000 utility), download the diagnostic Signal Set lib625iyuv\_pal\diagyv into TSG 1001 memory. Then select the 0.0V DC test signal with the OTHER SIGNALS 3 button of the TSG.
- d. Connect the cable leading from the network analyzer/test set to the first G/Y output. **VERIFY** a return loss (reflection) of  $\geq 35$  dB down from 300 kHz to 30 MHz.
- e. Move the cable to each of the remaining analog video outputs (G/Y, B/P<sub>B</sub>, R/P<sub>R</sub>, and Sync) in turn and **VERIFY** a return loss (reflection) of  $\geq 35$  dB down from 300 kHz to 30 MHz.





# Section 5

## Adjustment Procedures

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### List of Adjustments

This list may be used by those familiar with the adjustment of the Tektronix TSG 1000 family of generators. Step-by-step adjustment procedures begin on page 5-3. Some adjustments affect more than one performance parameter. For best results, complete the adjustment procedures in the order they are listed. Do not begin any of these procedures until the test equipment and TSG 1001 have reached normal operating temperature.

- 1. +5 Volt supply**  
R155 for +4.9 to +5.3 V at J58, pin 1 (page 5-3)
- 2. Pedestal DAC zero-adjust**  
R208, R227, and R10 for 0.000 V at P1, P2, and P3 (page 5-3)
- 3. Oscillator Frequencies**  
Through oven covers for nominal frequencies  $\pm 2$  Hz (page 5-4)
- 4. Gain, blanking, and pedestal levels**  
G/Y: O1/R483 for 700 mV; R41 for 0 V; and P1/R411 for 700 mV pedestal  
B/P<sub>B</sub>: O2/R422; R72; and P2/R421  
R/P<sub>R</sub>: O3/R426; R103; and P3/R427  
(page 5-8)
- 5. Sync amplitude**  
R449 (G/Y), R404 (B/P<sub>B</sub>), and R410 (R/P<sub>R</sub>) for  $-300 \pm 3$  mV (page 5-8)
- 6. Frequency response**  
C177 (G/Y), C200 (B/P<sub>B</sub>), and C16 (R/P<sub>R</sub>) for  $\pm 7$  mV to 20 MHz and  
 $\pm 14$  mV to 30 MHz (page 5-8)
- 7. Inter-channel timing**  
DL3 (G/Y), DL5 (R/P<sub>R</sub>), and J77/J78 (B/P<sub>B</sub>) (page 5-10)
- 8. Clock Filters (2)**  
(page 5-12)

### Required Equipment

Table 5-1, on the next page, lists the equipment required for adjustments. Accuracy of alternate equipment should equal or exceed that of the example instruments and accessories. Using inadequate equipment may result in inaccurate measurements and adjustments.



Table 5-1 Recommended test equipment and accessories.

Item	No.	Requirements	Example
<b>Tektronix SDP1000 Signal Development Package</b>	1	V2.4 or later.	
<b>IBM-compatible Personal Computer</b>	1	To run the SDP1000; a "286" or better with a math coprocessor is recommended.	
<b>HDTV Waveform Monitor</b>	1	For displaying 1050, 1125, or 1250 line waveforms.	Tektronix 1730HD
<b>Digital Multimeter</b>	1	Resolution: 0.1 mV. DC volts accuracy: $\pm 0.1$ mV.	Tektronix DM 504A in a TM500 series power module
<b>Test Oscilloscope</b>	1	Min. bandwidth: 300 MHz at 5 mV/div. 100 MHz bandwidth limit. Min. vertical deflection factor: 2 mV/div. Time Base range: 2 ms–1 $\mu$ s/div.	Tektronix TDS 540 Digitizing Oscilloscope or Tektronix 11403A oscilloscope with 11A32 plug-in amplifier
<b>Peak-to-Peak Detector</b>	1	Flat response $\pm 0.2\%$ to 20 MHz, $\pm 0.5\%$ to 30 MHz.	Tektronix p/n 015-0408-00 with 015-0413-00 detector head
<b>Frequency Counter/Timer</b>	1	Accurate to $\pm 2.5$ Hz in 75 MHz (in ratio A/B mode).	Tektronix DC503A
<b>Network Analyzer/ Reflectometer</b>	1	75 $\Omega$ . Capable of return loss ( $S_{11}$ ) and delay ( $S_{21}$ ) measurements from 300 kHz to 30 MHz.	Hewlett-Packard 8753C Network Analyzer with 85046B S-Parameter test kit
<b>Spectrum Analyzer with Tracking Generator</b>	1	Center frequency accuracy: $\pm 6$ kHz at 73 MHz.	Tektronix 2710/12 with Option 04
<b>BNC-to-SMB (female) cable or BNC-to-Pin Tip adapter</b>		For oscillator frequency adjustments; see text.	Tektronix p/n 012-0532-00 or p/n 175-1178-00
<b>75<math>\Omega</math> type N-to-BNC adapter</b>	2	Necessary for type N network analyzer ports.	
<b>75<math>\Omega</math> End-line termination</b>	2	.025% precision recommended.	Tektronix p/n 011-0102-01
<b>75<math>\Omega</math> Feed-through termination</b>	2		Tektronix p/n 011-0103-00
<b>75<math>\Omega</math> BNC coax cables</b>	2		Tektronix p/n 012-0074-00
<b>BNC-to-2 Pin coax cable</b>	1	For group delay measurements.	Tektronix p/n 174-1770-00
<b>Female-to-female BNC connector</b>	1	For group delay measurements.	Tektronix p/n 103-0028-00

## Standard Adjustment Procedures

For best results, complete all of the procedures in the order they are listed.

### 1. +5 Volt supply

- a. Remove the top cover of the TSG 1001, and connect the low input of a multimeter to a GND test point or the frame of the instrument. Connect the high input to pin 1 (designated with the ▼ symbol) of J58 on the Output board (see Fig. 5-1). For greatest accuracy, power the TSG 1001 with the output of a variable transformer (variac) set to either 110 or 220 V, depending on local supply.

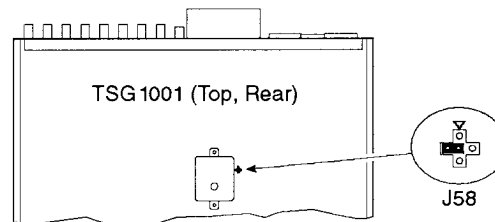


Fig. 5-1 The location of J58. Pin 1 should be +5.0 Volts DC.

- b. Set the multimeter to measure DC Volts. Pin 1 of J58 should be between +4.9 and +5.3 V. If it is not, remove the bottom cover of the TSG and adjust R155—on the Power Supply board, near the middle of the instrument—for a reading as close to +5.0 Volts as possible.

### 2. Pedestal DAC zero-adjust

- a. Connect the equipment as shown in Fig. 5-2.
- b. **ADJUST** R208 for a multimeter reading of 0.000 Volts DC.

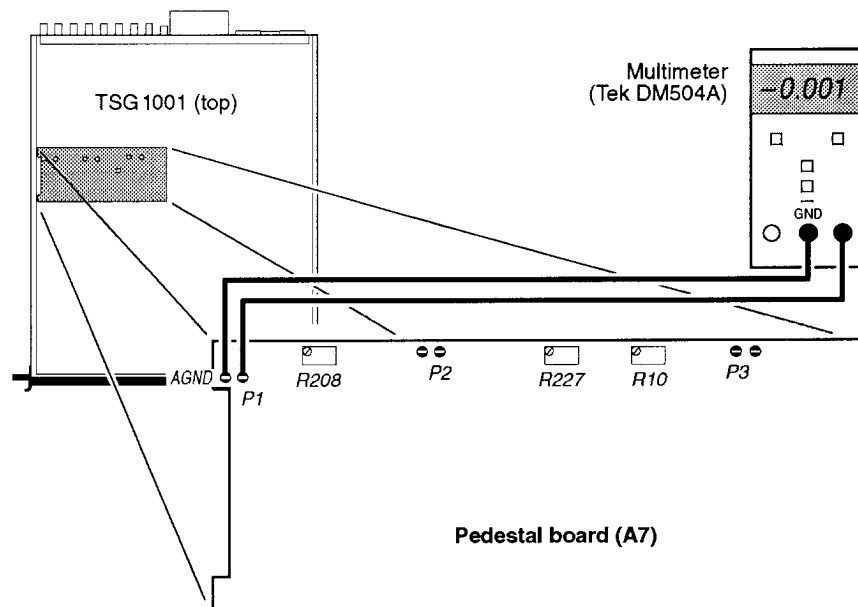


Fig. 5-2 Equipment setup for adjusting the zero voltage of the pedestal DACs.

- c. Move the multimeter probe from P1 to P2 on the Pedestal board. **ADJUST** R227 for a multimeter reading of 0.000 V.
- d. Move the multimeter probe from P2 to P3. **ADJUST** R10 for a reading of 0.000 V.

### 3. Oscillator Frequencies

*NOTE*

*After initial setup or long storage, allow a two-hour warm up to re-age the crystals. After that, 30 minutes warm up is sufficient.*

- a. Connect the test equipment as shown in Fig. 5-3. For best results, use a BNC-to-SMB (female) coax cable, such as Tektronix p/n 012-0532-00, between J73 and the Counter/Timer.

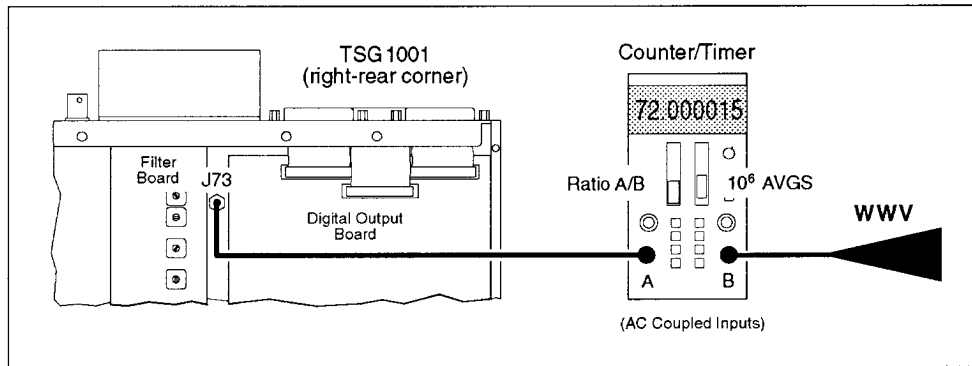


Fig. 5-3 A setup for checking the oscillator frequencies.

- b. Use Fig. 5-4 and Table 5-2 to identify the three oscillator frequencies installed in your TSG 1001. In later instruments, the frequencies of all three oscillators may be read from the settings of the corresponding frequency switches. Note, however, that early instruments do not have switches for oscillator 0. All early TSG 1001s—except for a few “custom option” instruments—have the 74.25 MHz oscillator in position 0.

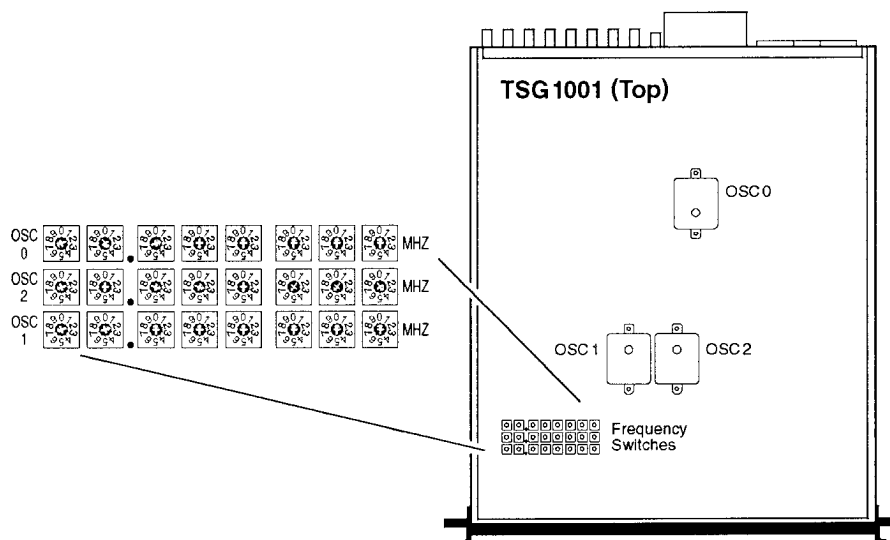


Fig. 5-4 The TSG 1001 oscillators and frequency switches.

Table 5-2 Available TSG 1001 frequencies.

Scanning Standard or Format	Nominal Freq. (MHz)	Range of Acceptable Frequencies (MHz)
D2 NTSC (option PGFD2)	14.318182	14.318168–14.318196
525/59.94/2:1 D1 625/50/2:1 D1 (option PGFD1)	27.000000	26.999974–27.000027
NTSC 525/59.94/1:1 525/59.94/2:1 625/50/1:1 625/50/2:1 1050/59.94/1:1 1050/59.94/2:1 1250/50/1:1 1250/50/2:1	72.000000	71.999928–72.000072
1125/60/2:1	74.250000	74.249926–74.250074
787/59.94/1:1	75.335664	75.335589–75.335739

- c. Choose one of the frequencies and, if necessary, download a test signal or signal set (from a PC with the SDP1000 program, COM1000) in a format that uses that frequency.
- d. Check the frequency on the Counter/Timer readout. If it is not within the range of acceptable frequencies, remove the plug on top of the appropriate oven cover and use a screwdriver to **ADJUST** the frequency to within 2 Hz of nominal. Remember to replace the plug in the cover when you are done.
- e. Repeat steps c and d for each of the two remaining oscillators.

### Oscillator Frequencies—alternate procedure

Because the top cover of the TSG 1001 has holes for access to the oscillator adjusting screws, the frequencies may also be checked and adjusted without removing the cover. To do so, connect the Counter/Timer as shown in Fig. 5-5, then follow steps c through e in the standard procedure above. To make subsequent checks and adjustments easier, write the nominal frequency of each oscillator on the top of the instrument near the corresponding access hole.

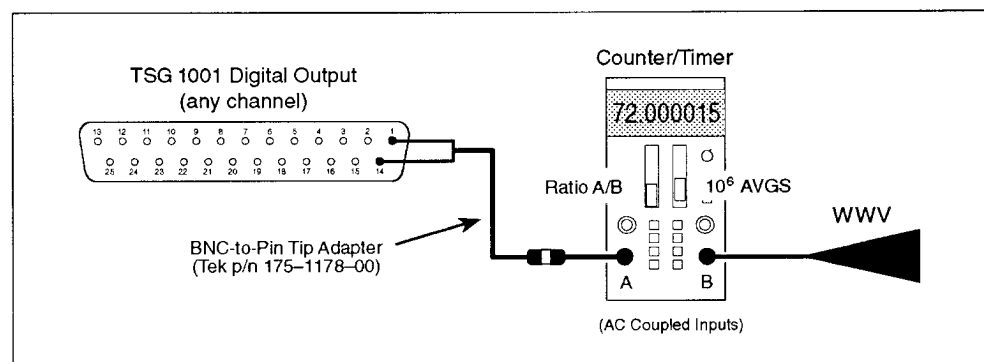


Fig. 5-5 An alternate setup for checking TSG 1001 oscillator frequencies.

Table 5-3 Signal sets suitable for the remaining adjustment procedures.

Signal Set Download File	Scanning "Standard"	Oscillator Freq. (MHz)
lib1050i\dnl1050i lib1250i\dnl1250i	1050/59.94/2:1 1250/50/2:1	72.000000
lib1125i\dnl1125i	1125/60/2:1	74.250000

#### 4. Blanking, gain, and pedestal levels

- a. Download one of the signal sets listed in Table 5-3 into TSG 1001 memory. Then use the front panel FORMATS button, if necessary, to select the GBR signal format.
- b. Connect the test equipment as shown in Fig. 5-6, and adjust the oscilloscope to the settings listed in Table 5-4. Be sure to set the vertical position to 0 divisions; *Do Not* use the vertical position knob at any time during the rest of this procedure.

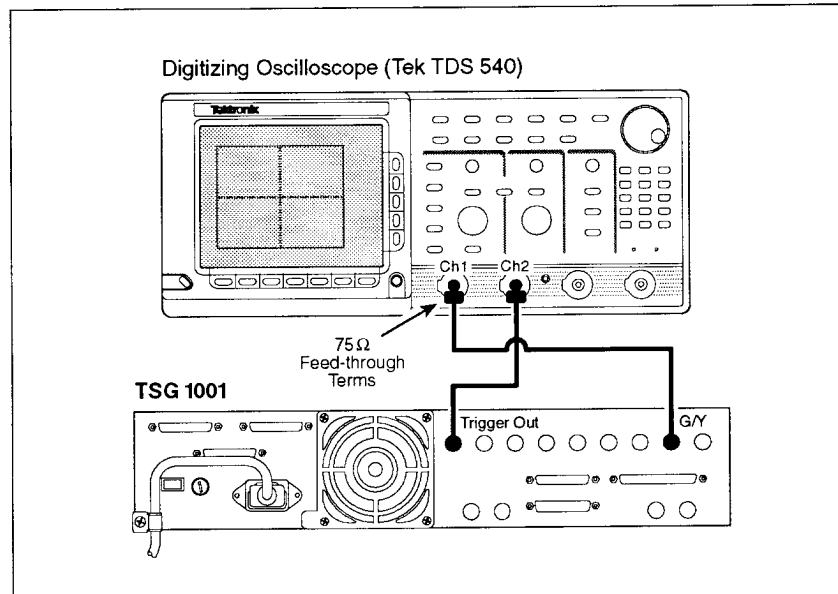


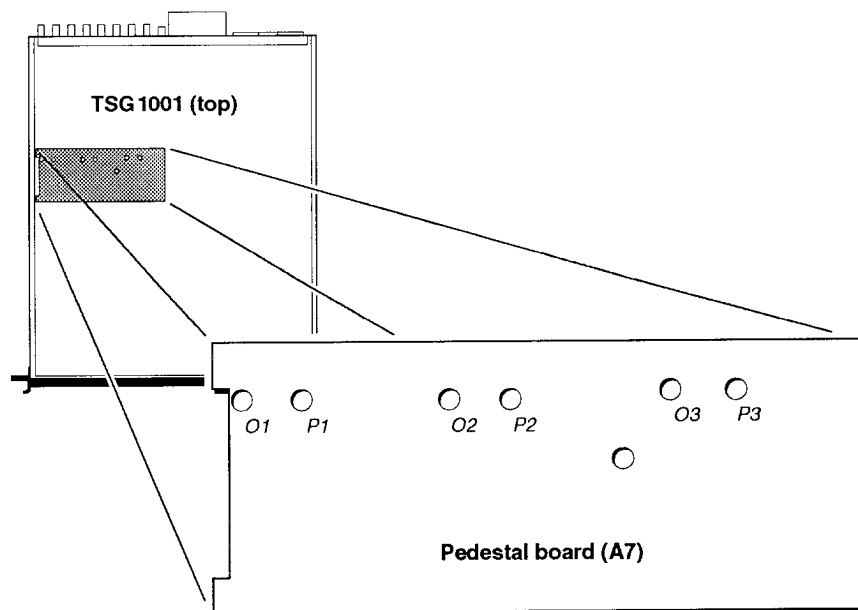
Fig. 5-6 The initial setup for blanking, gain, and pedestal adjustments.

- c. Remove the shield plate at the left-rear of the TSG 1001 to reveal the three gain-adjust resistors labeled GAIN1 (R41), GAIN2 (R72), and GAIN3 (R103).
- d. Select a 100% Color Bars test signal with the COLOR BARS button of the TSG. With the oscilloscope vertical offset at 700 mV, the top of the Green waveform should be even with the middle horizontal graticule line. The G/Y offset adjustment, R483, is accessible through the hole marked O1 on the Pedestal board (see Fig. 5-7). **ADJUST** R483 to match the top of the waveform to the horizontal graticule.
- e. Set the vertical offset of the oscilloscope to 0 V. The blanking level of the waveform should be even with the middle horizontal graticule line. **ADJUST** R41 (GAIN1) to match the blanking level to the horizontal graticule.

**Table 5-4** Initial oscilloscope (TDS 540) settings for adjusting signal levels.

Trigger Menu		Vertical Menu	
Type .....	Edge	Coupling .....	DC
Source .....	CH3	Bandwidth.....	Full
Coupling .....	DC	Fine Scale .....	10 mV/div
Slope.....	Positive	Position .....	0 div
Level.....	300 mV	Offset .....	700 mV
Horizontal Menu		Acquisition Menu	
Time Base.....	Main	Mode .....	Hi Res
Trigger Position .....	50%	Repetitive Signal .....	ON
Record Length.....	1000 pts		
Horiz. Scale .....	5 $\mu$ s/div		

- f. Reset the vertical offset to 700 mV. Verify that the top of the waveform remains even with the horizontal graticule. If necessary, **ADJUST** R483 (through O1) to match the waveform to the graticule line.
- g. Repeat steps e and f until both offset and gain are correct.
- h. With the SET PEDESTAL button and knob of the TSG 1001, adjust the pedestal to 700 mV. Set the vertical offset of the oscilloscope to 700 mV. The pedestal “step” of the waveform should be even with the major horizontal graticule line. **ADJUST** R411, accessible through the hole marked P1, to match the pedestal to the horizontal graticule.
- i. Repeat steps e, f, and h until the offset, gain, and pedestal levels of the G/Y channel are correct.
- j. Move the cable from the G/Y output to one of the B/P<sub>B</sub> outputs. Follow the above procedure (steps d through i) to **ADJUST** the offset, gain, and

**Fig. 5-7** Holes in the TSG 1001 pedestal board that provide access to the offset and pedestal adjustments.

pedestal levels of the B/P<sub>B</sub> channel. The offset adjustment is R422, reached through the hole in the Pedestal board marked O2; the gain adjustment is with R72, marked GAIN2; and the pedestal adjustment is with R421, reached through P2 on the Pedestal board.

- k. Finally, move the cable from the B/P<sub>B</sub> output to one of the R/P<sub>R</sub> outputs. Follow the above procedure (steps d through i) to adjust the offset, gain, and pedestal levels of the B/P<sub>B</sub> channel. The offset adjustment is R426, reached through the hole in the Pedestal board marked O2; the gain adjustment is with R103, marked GAIN3; and the pedestal adjustment is with R427, reached through P2 on the Pedestal board.

**5. Sync amplitude**

- a. Begin with the equipment setup from the previous procedure and move the cable leading to Ch1 of the oscilloscope to the TSG 1001 Sync output between the G/Y and B/P<sub>B</sub> outputs. Adjust the oscilloscope vertical offset to 0 Volts.
- b. **ADJUST** R449 (at the back of the Output board, near the BNC connectors) to match the “active video” region of the waveform to the “porch” (0 V) level of the sync.
- c. Change the vertical offset of the oscilloscope to -300 mV. **ADJUST** R404 (near R449) to place the sync tip on the middle horizontal graticule of the scope display.
- d. Move the cable to the other Sync output. **ADJUST** R410 (near R404) to place the sync tip on the middle horizontal graticule line.

**6. Frequency response**

- a. Connect the test equipment as shown in Fig. 5-8. Connect the peak-to-peak detector head directly to one of the TSG 1001 G/Y outputs. *Do not terminate the 75Ω cable at the oscilloscope input.* Enable the + input of the peak-to-peak detector and adjust the oscilloscope to DC coupled, 5 mV/division vertical resolution, and 2 ms/division horizontal.

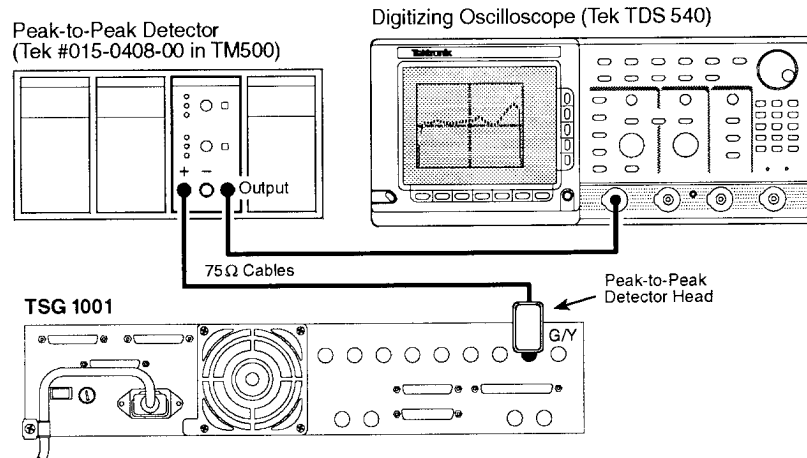


Fig. 5-8 A setup for verifying frequency response of the TSG 1001.

- b. At the TSG 1001 front panel:
- Select the Zone Plate signal set with the SIGNAL SETS button.
  - Through the MONITOR SETUP button, select the Horizontal Sine zone plate pattern. Turn the TSG knob to adjust the horizontal sine frequency to 30 MHz.
  - Press the SWEEP/PARAMETERS button repeatedly until the readout displays the  $K_X$ : H FREQ parameter in c/aph (cycles per active picture height). Note the value of  $K_X$ .
  - Through the MULTIPULSE/USER ZONE PLATES button, select the Blank Zone Plate.
  - Use the SWEEP/PARAMETERS button to select the “ $K_{XY}$ : V CH H FREQ” ( $K_{XY}$ , or vertical change in horizontal frequency) zone plate parameter.
  - With the knob, adjust  $K_{XY}$  to the previously noted  $K_X$  value. The generator will output a “Field Sweep” signal that sweeps from DC at the top of the picture to 30 MHz at the bottom.
- c. Adjust the + input level of the peak-to-peak detector to illuminate the green (middle) LED, and adjust the oscilloscope to view the output of the peak-to-peak detector. The trace will resemble Fig. 5–9.

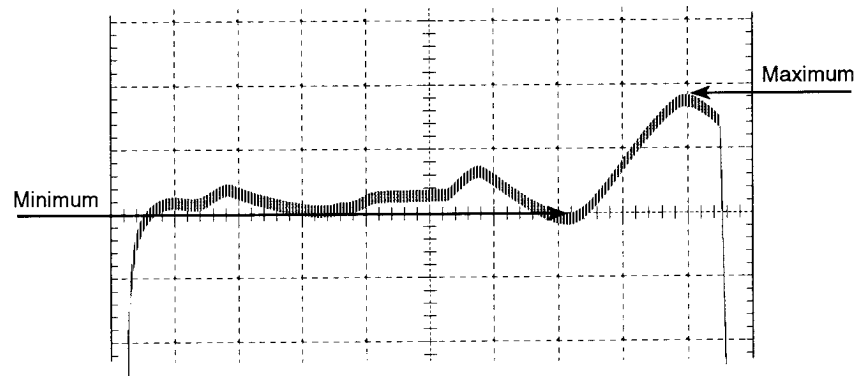


Fig. 5–9 One field of a field sweep zone plate as “seen” through a peak-to-peak detector.

- d. **ADJUST C177** (on the Output board, at the back of the instrument) to make the waveform as flat as possible. Position the trace to place the minimum or maximum amplitude on the graticule, as shown. The deviation between the maximum and the minimum must be less than 14 mV (2%) from 0 to 30 MHz, and no more than 7 mV (1%) from 0 to 20 MHz. Ignore the region of sharp drop-off at either end of the waveform that corresponds to the vertical interval. If necessary to confirm the response to 20 MHz, adjust  $K_{XY}$  to  $\frac{2}{3}$  (.667) times the original “30 MHz value” determined in step b.
- e. Move the peak-to-peak detector head to one of the B/P<sub>B</sub> outputs and follow the above procedure (steps c and d) to **ADJUST C200** for optimum frequency response of the B/P<sub>B</sub> channel. Begin with the  $K_{XY}$  for a 30 MHz sweep.
- f. Finally, move the peak-to-peak detector head to one of the R/P<sub>R</sub> outputs and follow the above procedure (steps c and d) to **ADJUST C16** for optimum frequency response of the R/P<sub>R</sub> channel. Begin with the  $K_{XY}$  for a 30 MHz sweep.



## 7. Inter-channel timing

- a. Connect the equipment as shown in Fig. 5–10 and adjust the waveform monitor to the settings listed in Table 5–5.

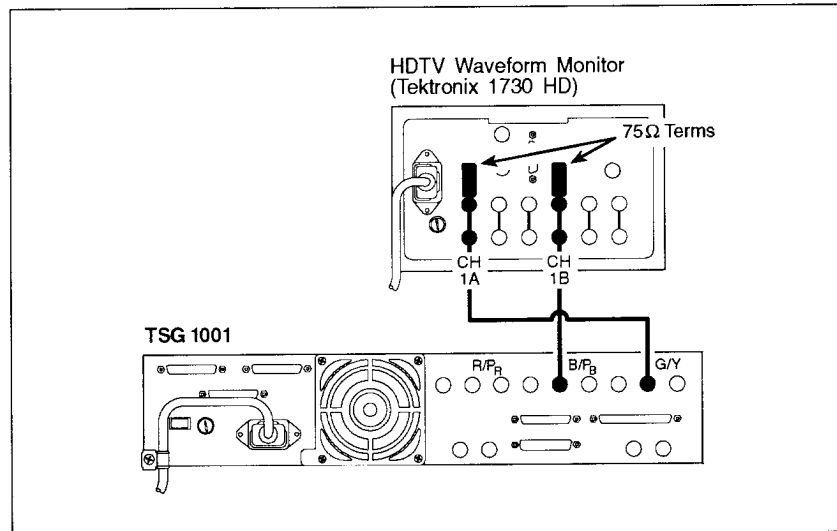


Fig. 5–10 A setup for adjusting inter-channel timing.

Table 5–5 Initial Tektronix 1730HD settings for inter-channel timing adjustments.

Front Panel	Menu Settings
Input ..... CH1 A	Lines/Frame .....
REF ..... CH1	..... match TSG “standard”
Vert. Gain ..... OFF	Subtract (1B) ..... YES
Vert. Filter ..... FLAT	Offsets ..... Disabled
Horizontal ..... ONE/LINE	Ext Horiz ..... NO

- b. Select the “Bowtie; 1ns Markers” signal with the TIMING SIGNALS button of the TSG 1001.

The bowtie test signal has a 5.000 MHz sine wave on the G/Y channel, and 5.002 MHz sine waves on the remaining channels. The 90° phase timings of the three sinusoids should be identical; if they are, subtracting either the B/P<sub>B</sub> or R/P<sub>R</sub> signal from the G/Y signal will leave a bowtie-shaped remainder, with the narrowest part, or “knot,” centered on the video line. The G/Y output also has short-duration pulses used as markers to measure the timing error. If the knot is not centered, but rather three markers to the left or right of center, for example, the mistiming is 3 ns (see Fig. 5–11).

### NOTE

*The delay circuits of the three TSG 1001 channels are independent of each other. The clock timing of the G/Y channel is adjusted with delay line DL3; the timing of the B/P<sub>B</sub> channel is determined by the position of the jumper between J77 and J78; and the R/P<sub>R</sub> channel is timed with DL5. The timing increments of DL3 and DL5 are much finer than those of J77/J78. Therefore, this procedure uses the B/P<sub>B</sub> channel as the “baseline” and matches the G/Y channel to it. The R/P<sub>R</sub> channel is then matched to G/Y (because the standard bowtie signal will not reveal mistiming between the B/P<sub>B</sub> and R/P<sub>R</sub> channels).*

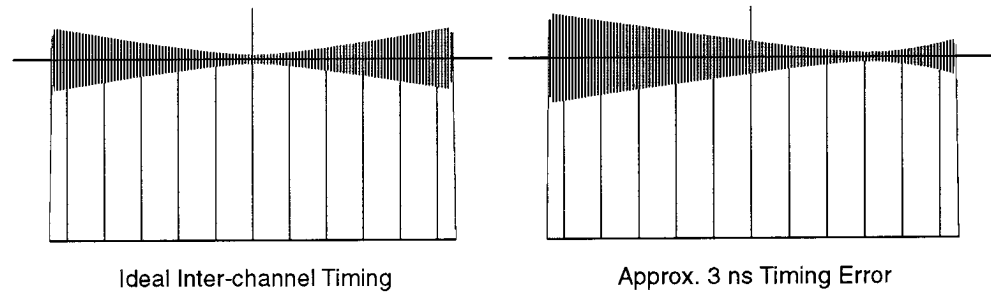


Fig. 5-11 Interpreting the CH1A-CH1B bowtie trace.

- c. Adjust the waveform monitor, if necessary, to view the CH1A-CH1B waveform and markers. The narrowest portion of the bowtie-shaped waveform should be no more than 1 marker division to the left or right of the taller center marker. If necessary, **ADJUST DL3** (on the Output board, under the Pedestal board, as shown in Fig. 5-12) for proper G/Y channel delay.

If the adjustment range of DL3 is not enough for correct inter-channel timing, it will be necessary to move the J77/J78 jumper one position to either advance or delay the B/P<sub>B</sub> clock. To do this:

- Remove the screws that hold the Pedestal board down.
- Pull the board straight up and off the four pair of square pins that protrude from the Output board.
- Move the jumper toward J77/J78 pins 5-5 to advance the B/P<sub>B</sub> clock; move it toward pins 1-1 (designated with the ▼ symbols) to delay it.
- Replace the Pedestal board, making sure that all of the square pins are inserted into the Pedestal board connectors.

Then adjust DL3 for correct G/Y-to-B/P<sub>B</sub> channel timing.

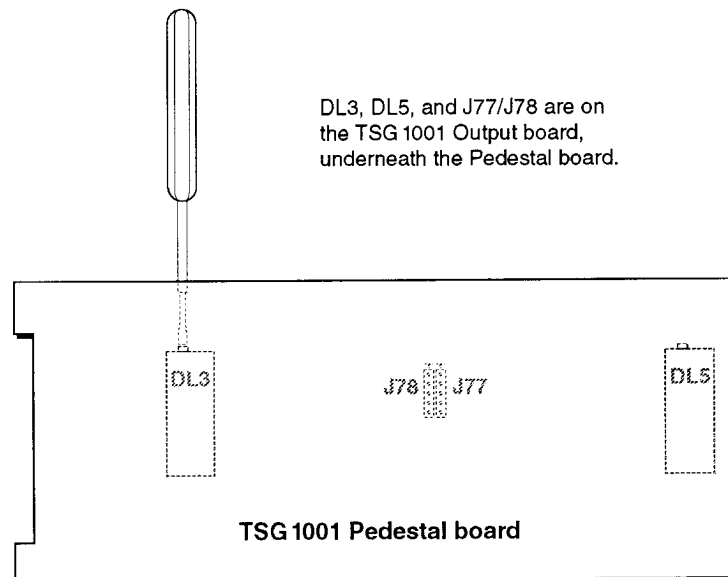


Fig. 5-12 TSG 1001 timing adjustments.

- d. Move the cable from the B/P<sub>B</sub> output of the TSG 1001 to the R/P<sub>R</sub> output. Once again, the narrowest portion of the bowtie-shaped waveform should be no more than 1 marker division to the left or right of the center marker. If necessary, **ADJUST DL5** for correct R/P<sub>R</sub> channel delay (see Fig. 5–12).

If the adjustment range of DL5 is insufficient for correct inter-channel timing, it will be necessary to advance or delay the B/P<sub>B</sub> clock with the J77/J78 jumper, readjust the G/Y delay line to match the B/P<sub>B</sub> advance or delay, and then adjust DL5 for correct R/P<sub>R</sub> channel delay. To do this:

- Move the cable from the R/P<sub>R</sub> output of the TSG 1001 to the B/P<sub>B</sub> output.
- Remove the screws that hold the Pedestal board down.
- Pull the board straight up and off the four pair of square pins that protrude from the Output board.
- Move the jumper toward J77/J78 pins 5-5 to advance the B/P<sub>B</sub> clock; move it toward pins 1-1 (designated with the ▼ symbols) to delay it.
- Replace the Pedestal board, making sure that all of the square pins are inserted into the Pedestal board connectors.

Repeat steps c and d.

- e. When inter-channel timing adjustments are completed, reattach the Output board shield plate and replace the Pedestal board retaining screws if necessary.

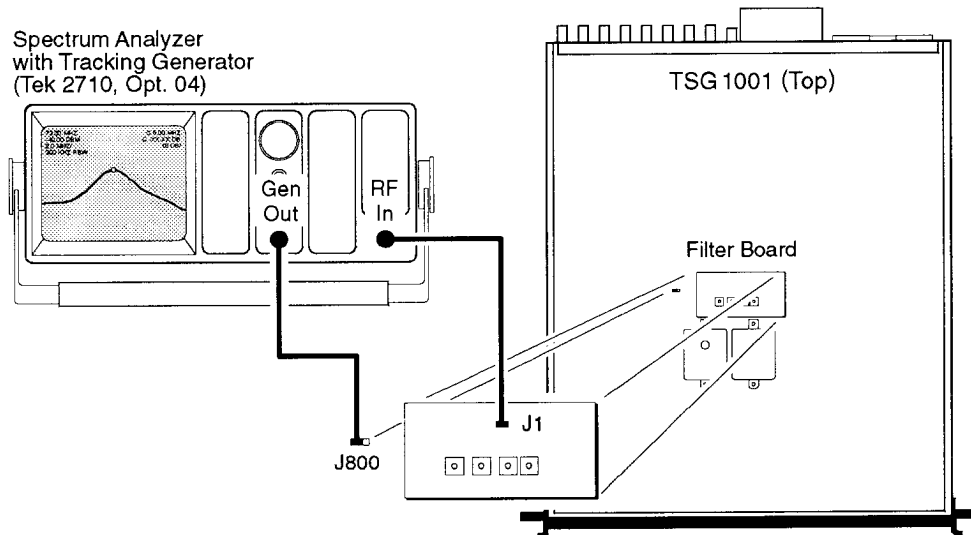
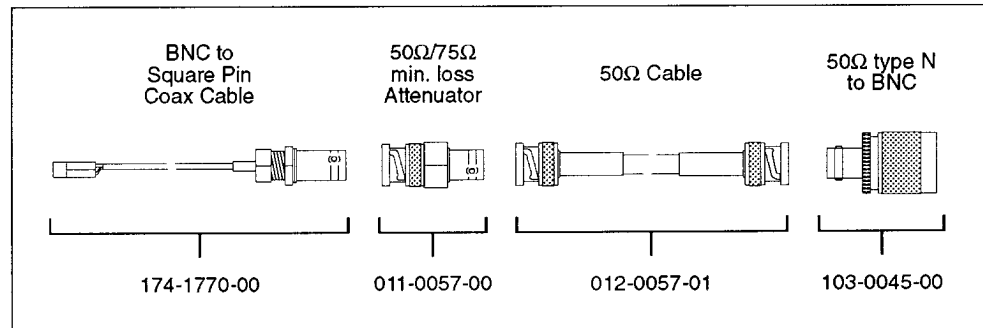


Fig. 5–13 A setup for clock filter adjustments.

## 8. Clock filter adjustments

- a. Remove the jumper from J800 on the TSG 1001 Oscillator board and connect the equipment as shown in Fig. 5–13; two cable assemblies as shown in Fig. 5–14 are required. Connect pin 2 (the signal lead) of the square pin cable-ends to pin 1 at both J800 and J1. Initial settings to the spectrum analyzer are listed in Table 5–6. Once the cables are attached, adjust the reference level to center the trace on the analyzer display.

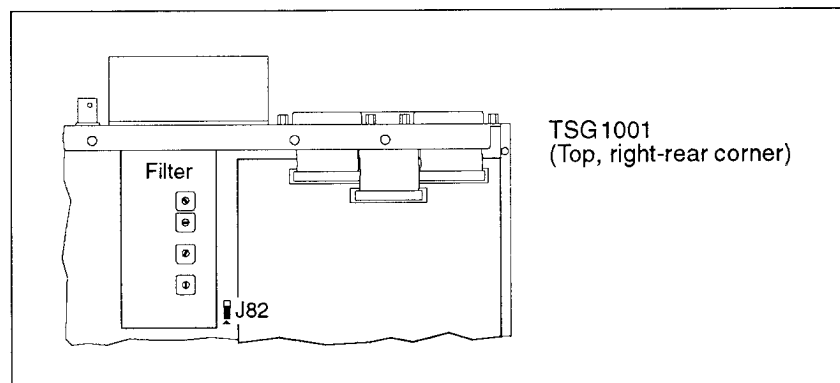


**Fig. 5-14** Components (with Tektronix part numbers) of the spectrum analyzer-to-TSG 1001 cables.

**Table 5-6** Initial spectrum analyzer (Tek 2710/2712) settings for clock filter adjustments.

MKR/FREQ Menu	Other Controls
Frequency ..... 73.0 MHz	Auto Sweep ..... ON
Span/Div..... 2.0 MHz	Auto Resolution ..... ON
	Video Filter ..... ON
DET/GEN Menu	Ref. Level ..... -20 dBm
Detector ..... ON	Vert. Scale ..... 5 dB/Div.
TG Fixed Level. .... -10 dBm	

- b. Move the jumper on the filter board from J6 (the storage, or “keeper,” pins) to J3. Adjust L6 with a non-magnetic tool (e.g., Tektronix p/n 003-0837-00) to move the signal peak—visible on the spectrum analyzer display—to 73 MHz. (When L6 is adjusted correctly, the 73 MHz marker will be on the highest point of the frequency trace.)
- c. Move the filter board jumper from J3 to J4. Adjust L5 to move the lowest point of the signal trough (“valley”) to 73 MHz.
- d. Move the jumper from J4 to J5. Adjust L4 to move the **center** signal peak to 73 MHz.
- e. Move the jumper from J5 to J6. Use L3 to move the lowest point of the signal trough to 73 MHz.
- f. Remove the cables from J800 and J1. Reinstall the jumper on J800. Leave the jumper installed on J6.



**Fig. 5-15** The Output board clock filter.

## Adjustment Procedures

- g. Repeat this procedure (steps **a** through **f**) to align the Output board filter. Attach the cable from the analyzer “Gen Out” to J82 on the Output board (see Fig. 5-15).
- h. If no further adjustment or service is required, reinstall the instrument cover(s) when both clock filters have been aligned.



# Section 6

## Maintenance

The TSG 1001 requires no maintenance in normal operation except for periodic replacement of the RAM backup batteries (see page 6–3).

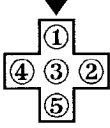
### Jumper Tables

**Table 6–1** Oscillator board (A2) jumpers.

Function	Jumper	Description	Factory Position
Oscillator 1 Oven Heater Enable/Disable	J601	Pins 1–2: Heater enabled. Pins 2–3: Heater disabled.	1–2
Oscillator 2 Oven Heater Enable/Disable	J701	Pins 1–2: Heater enabled. Pins 2–3: Heater disabled.	1–2
Filter Alignment Signal In	J800	Pins 1–2: Normal operation; signal is input to pins 2 and 3 (GND).	1–2
Clock Timing	J900 J901	Variable delay. J900 and J901 must be in the same position.	**
Frame Reset Timing	J910 J911	Variable delay. J910 and J911 must be in the same position.	**

\*\* Factory set for correct timing.

**Table 6–2** Output board (A3) jumpers.

Function	Jumper	Description	Factory Position
Oscillator 0 Oven Heater Enable/Disable	J8	Pins 1–2: Heater enabled. Pins 2–3: Heater disabled.	1–2
Sync/Trigger Select (for Sync Out between B/P <sub>B</sub> and R/P <sub>R</sub> )	J23	Pins 1–2: Sync signal out. Pins 2–3: Trigger out.	1–2
B/P <sub>B</sub> Clock Delay	J77/J78	Pins 1–1: Maximum delay. Pins 5–5: Minimum Delay.	**
Filter Alignment Signal In	J82	Pins 1–2: Normal operation; signal is input to pins 2 and 3 (GND).	1–2
Oscillator 0 Test	J58 	Pins 1–3: Fixed test voltage (+5 V). Pins 2–3: Fixed test voltage (–5 V). Pins 3–4: Calibrated voltage for free-running frequency (VCOCNTRL). Pins 3–5: Fixed test voltage (GND).	3–4
Clock (+/–) Delay	J75/J80 (–) and J76/J81 (+)	Pins 1–1: Maximum delay. Pins 5–5: Minimum Delay. Both J75/J80 and J76/J81 must be in the same position.	**

**Table 6-3** Filter board (A2A1 and A2A3) jumpers.

Function	Jumper	Description	Factory Position
Filter Alignment Signal Out	J1	Output to spectrum analyzer for filter alignment; pin 1, signal, pin 2, GND. See adjustment procedure in Section 5.	Open
Resonator 1 Adjust	J3	Open for normal operation. Shorted to permit adjustment of 1st resonator (see procedure, Section 5).	Open
Resonator 2 Adjust	J4	Open for normal operation. Shorted to permit adjustment of 2nd resonator (see procedure, Section 5).	Open
Resonator 3 Adjust	J5	Open for normal operation. Shorted to permit adjustment of 3rd resonator (see procedure, Section 5).	Open
Jumper "Keeper"	J6	Holds jumper for use on J3-J5 during adjustment procedure.	Occupied

**Table 6-4** Controller board (A5) jumpers.

Function	Jumper	Description	Factory Position
Watchdog Disable	J1	Pins 1-2: Watchdog enabled. Pins 2-3: Watchdog disabled.	1-2
Reset	J2	Pins 1-2: Normal operation. Pins 2-3: Hardware reset.	1-2
U97, Pin 15 Voltage Select	J15	Pins 1-2: GND. Pins 2-3: +5 V.	1-2
U11, Pin 1 Voltage Select	J17	Pins 1-2: +5 V. Pins 2-3: GND.	1-2

**Table 6-5** Clock input board (A8) jumpers.

Function	Jumper	Description	Factory Position
Clock Delay	J11/J13 and J12/J14	Pins 1-1: Maximum delay. Pins 5-5: Minimum Delay. Both J11/J13 and J12/J14 must be in the same position.	**
Clock/Frame Delay	J15/J16	Pins 1-1: Maximum delay. Pins 3-3: Minimum Delay.	**



Table 6-6 RAM board (A17) jumpers.

Function	Jumper	Description	Factory Position
Clock Delay	J500 and J501	Pins 1-2: Maximum Delay Pins 7-8: Minimum Delay Both J500 and J501 must be in the same position.	**
Frame Reset Delay	J510 and J511	Pins 1-2: Maximum Delay Pins 7-8: Minimum Delay Both J510 and J511 must be in the same position.	**

## RAM backup batteries

The instrument uses three rechargeable Nickel-Cadmium (NiCad) batteries for RAM backup. The instrument contains a “trickle charge” circuit that recharges the batteries whenever power is switched on.

The batteries are 1.2 V, 500 mAh AA cells, Panasonic P-50AAH or equivalent.

When fully charged, they will preserve the information in RAM for at least two weeks.

Completely discharged batteries take 14 to 20 hours to reach full charge.

As installed in the TSG 1001, the batteries have a practical service life of 1 to 2 years. Yearly battery replacement is recommended to prevent loss of test signal data in case of short-duration instrument shut-down or power interruption.

If the TSG 1001 has lost data due to backup battery discharge, follow the instructions under *Reinitializing the instrument*, in Section 2 of this manual, to return the generator to service.

DO NOT short-circuit charged NiCad batteries.

## Replacement

To ensure the preservation of data in RAM, replace the batteries when the instrument is switched on.

### WARNING

***Possibly lethal voltages exist on the TSG1001 Power Supply board. When replacing the batteries, do not remove the clear power supply shield or defeat the shield in any way. Do not touch the crosshatched area of the Power Supply board or any parts in that area.***

To replace the batteries:

1. Remove the bottom cover of the instrument.
2. Remove the old batteries from the holder.
3. Install fresh batteries. Correct polarity is pictured on the battery holder.
4. Replace the instrument cover.

5. Leave the TSG 1001 switched on for 14 to 20 hours to fully charge the new batteries.

## **Disposal**

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Please dispose of used batteries responsibly. DO NOT dispose of NiCad batteries by burning.



## Section 7: Options

### Replacing Oscillator Crystals

The TSG1001 contains three oscillators for generation of the three digital sample clocks. The instrument can support two ranges of sampling frequencies: The high-frequency range is from 68 to 78 MHz and uses crystals that run at one-fifth of the sampling frequency; the low-frequency range is from 0 to 27 MHz and uses crystals that run at the sampling frequency.

In its standard configuration, the TSG 1001 contains crystals that produce the following sampling frequencies:

**Table 7-1: Standard oscillators**

Oscillator Number	Crystal Frequency (MHz)	Sampling Frequency (MHz)
0	14.85	74.250000
1	14.40	72.000000
2	15.0671328	75.335664

Two oscillator kits, PGFD1 and PGFD2, are available from Tektronix at this writing. PGFD1 supports the D1/4:2:2 video formats; PGFD2 supports D2 formats.

The oscillator crystals themselves may be replaced to allow the generation of previously undefined, or “user,” formats. The SDP1000 manual has information on choosing appropriate sampling and crystal frequencies for user formats.

The following pages contain instructions for the actual replacement of an oscillator or crystal. Both PGFD1 and PGFD2 kits consist of a complete oscillator case that contains the appropriate crystal. To install either kit, follow steps 1 through 4, then skip to step 9.



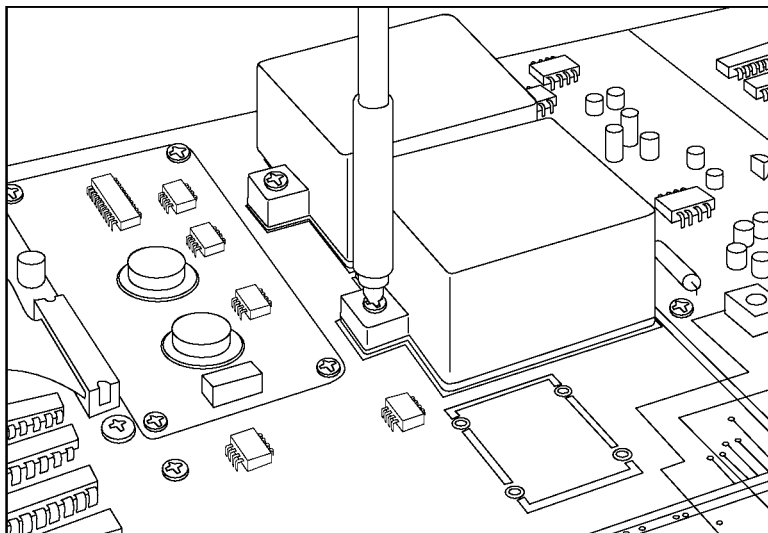
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**WARNING.** To prevent injury and equipment damage, disconnect power to the TSG1001 before performing the following procedure.

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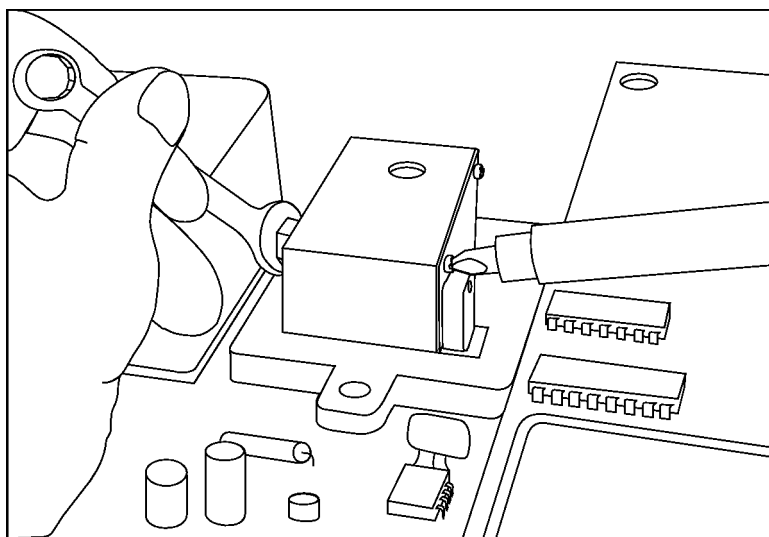
Replace the crystal in oscillator 1 or 2 as follows.

1. Remove the top cover of the TSG 1001.
2. Locate the oscillator to be changed. Remove the two screws retaining the oscillator oven cover (see Figure 7-1), and remove the cover.



**Figure 7-1: Removing an oven cover**

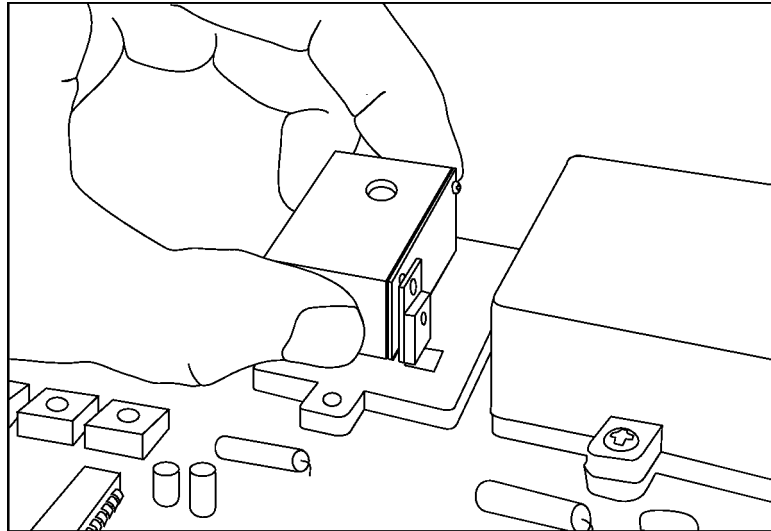
3. Remove the screw that holds the heating transistor to the oscillator case (see Figure 7-2; note that the screw may be installed from either direction.)



**Figure 7-2: Removing the heating transistor screw**

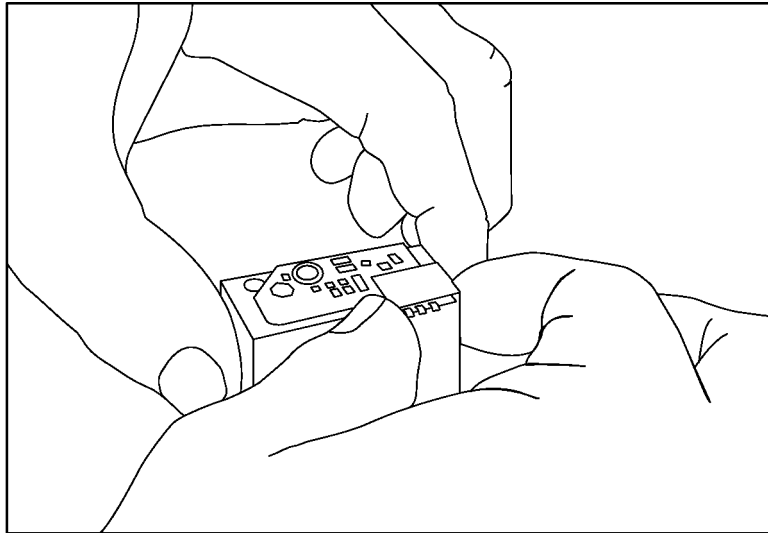
4. Unplug the oscillator case from the board as shown in Figure 7-3. Lift the oscillator case straight upward to prevent damage to the circuit board pins.

(If the replacement oscillator includes the case-as do PGFD1 and PGFD2, the Tektronix oscillator kits-plug the new case into the circuit board, re-install and tighten the heating transistor retaining screw, and skip to step 9.)



**Figure 7-3: Unplugging the oscillator case**

5. Remove the screw and side-plate from the oscillator case, exposing the surface-mount crystal board.
6. Remove the crystal board retaining screw, then the oscillator assembly from its case as shown in Figure 7-4.



**Figure 7-4: Removing the oscillator assembly.**

7. Replace entire circuit board and crystal as a unit, or use a soldering iron to remove the original crystal from the oscillator circuit board and replace it with one of the appropriate frequency. Be certain that heat from the soldering iron does not dislodge any of the other parts on the circuit board.
8. Reassemble the oscillator by reversing the above steps. Note that the thermistor (the small bead-like component next to the crystal) and the crystal fit into wells in the oscillator case. Be sure to reinstall and tighten the heating transistor retaining screw.



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**WARNING.** *The heating transistor will fail if it is not properly attached to the oscillator case. This failure could result in personal injury if the oven cover is not installed. Do not operate this instrument without having resecured the heating transistor and replaced the oven cover.*

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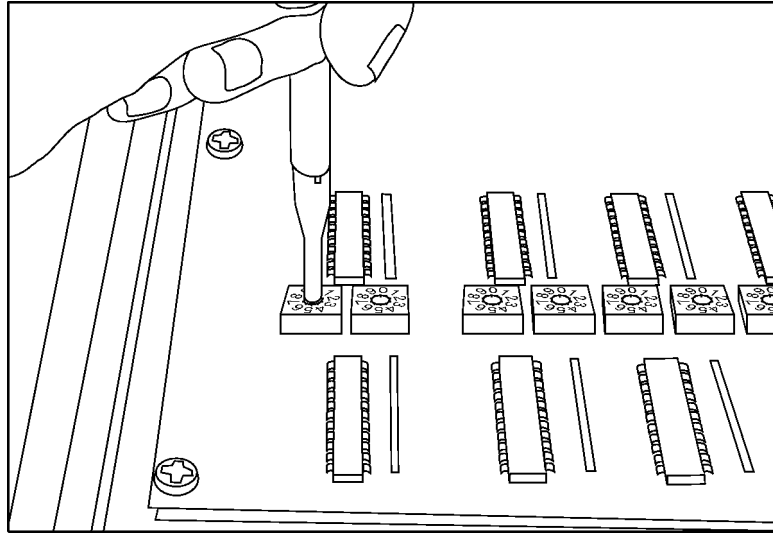
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**NOTE.** *If you must operate the TSG1001 without one of its oscillator cases, move the jumper for that oscillator (J601 for oscillator 1, J701 for oscillator 2) to pins 2–3 to disable the heater circuit.*

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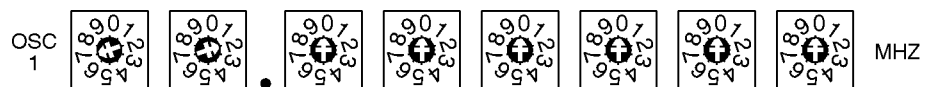
9. Locate the rotary switches for the oscillator you have changed. These switches are in the left-front corner of the instrument. Use a small screwdriver as shown in Figure 7-5 to set the switches to the *oscillator* frequency, either equal to (0 to 27.0 MHz), or five times (68 to 78 MHz) the crystal

frequency. The TSG 1001 microprocessor reads the rotary switches at power-up to ensure proper operation of the instrument.



**Figure 7-5: Setting the rotary switches**

For example, if a 14.4 MHz crystal has been installed to provide a sampling frequency of 72.0 MHz, the switches should be set as shown in Fig. 7-6. The correct setting for the PGFD1 oscillator kit is 27.000000 MHz; it is 14.318182 MHz for PGFD2



**Figure 7-6: Example rotary switch setting (72.000000 MHz)**

- 10.** Reconnect the TSG 1001 to a power source. Turn the instrument on, and let it warm up for *at least* 30 minutes (2 hours warmup is recommended).
- 11.** Use the procedure in Section 5 of the Service manual to adjust the oscillator frequency.
- 12.** For highest accuracy, readjust the frequency after the first 5 days (120 hours) of continuous operation.







# Replaceable Electrical Parts

This section contains a list of the components that are replaceable for the TSG 1001. Use this list to identify and order replacement parts. There is a separate Replaceable Electrical Parts list for each instrument.

## Parts Ordering Information

Replacement parts are available from or through your local Tektronix, Inc., Field Office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components as they become available and to give you the benefit of the latest circuit improvements. Therefore, when ordering parts, it is important to include the following information in your order.

- Part number
- Instrument type or model number
- Instrument serial number
- Instrument modification number, if applicable

If a part you have ordered has been replaced with a new or improved part, your local Tektronix, Inc., Field Office or representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

## Using the Replaceable Electrical Parts List

The tabular information in the Replaceable Electrical Parts list is arranged for quick retrieval. Understanding the structure and features of the list will help you find all of the information you need for ordering replaceable parts.

### **Cross Index–Mfr. Code Number to Manufacturer**

The Mfg. Code Number to Manufacturer Cross Index for the electrical parts list is located immediately after this page. The cross index provides codes, names, and addresses of manufacturers of components listed in the electrical parts list.

### **Abbreviations**

Abbreviations conform to American National Standards Institute (ANSI) standard Y1.1.

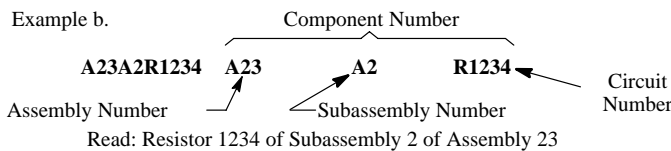
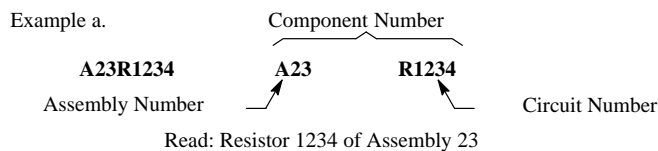
**List of Assemblies**

A list of assemblies can be found at the beginning of the electrical parts list. The assemblies are listed in numerical order. When the complete component number of a part is known, this list will identify the assembly in which the part is located.

**Column Descriptions**

**Component No.  
(Column 1)**

The component circuit number appears on the diagrams and circuit board illustrations, located in the diagrams section. Assembly numbers are also marked on each diagram and circuit board illustration, in the Diagram section and on the mechanical exploded views, in the mechanical parts list. The component number is obtained by adding the assembly number prefix to the circuit number.



The electrical parts list is arranged by assemblies in numerical sequence (A1, with its subassemblies and parts, precedes A2, with its subassemblies and parts).

Mechanical subparts to the circuit boards are listed in the electrical parts list. These mechanical subparts are listed with their associated electrical part (for example, fuse holder follows fuse).

Chassis-mounted parts and cable assemblies have no assembly number prefix and are located at the end of the electrical parts list.

**Tektronix Part No.  
(Column 2)**

Indicates part number to be used when ordering replacement part from Tektronix.

**Serial/Assembly No.  
(Columns 3 and 4)**

Column three (3) indicates the serial or assembly number at which the part was first used. Column four (4) indicates the serial or assembly number at which the part was removed. No serial or assembly number entered indicates part is good for all serial numbers.

**Name and Description  
(Column 5)**

An item name is separated from the description by a colon (:). Because of space limitations, an item name may sometimes appear as incomplete. Use the U.S. Federal Catalog handbook H6-1 for further item name identification.

The mechanical subparts are shown as \*ATTACHED PARTS\* / \*END ATTACHED PARTS\* or \*MOUNTING PARTS\* / \*END MOUNTING PARTS\* in column five (5).

**Mfr. Code (Column 6)** Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

**Mfr. Part No. (Column 7)** Indicates actual manufacturer's part number.

## Cross Index – Mfr. Code Number To Manufacturer

Mfr. code.	Manufacturer	Address	City, state, zip code
00779	AMP INC.	CUSTOMER SERVICE DEPT PO BOX 3608	HARRISBURG, PA 17105-3608
01295	TEXAS INSTRUMENTS INC	SEMICONDUCTOR GROUP 13500 N CENTRAL EXPRESSWAY PO BOX 655303	DALLAS, TX 75272-5303
04222	AVX/KYOCERA	PO BOX 867	MYRTLE BEACH, SC 29577
04713	MOTOROLA INC	SEMICONDUCTOR PRODUCTS SECTOR 5005 E MCDOWELL ROAD	PHOENIX, AZ 85008-4229
05347	ULTRONIX INC	461 N 22ND P O BOX 1090	GRAND JUNCTION, CO 81502
05464	INDUSTRIAL ELECTRONIC ENGS INC	CPD/DIVISION 7740 LEMONA AVE	VAN NUYS, CA 91409-9234
060D9	UNITREK CORPORATION	3000 COLUMBIA HOUSE BLVD, SUITE 1 20	VANCOUVER, WA 98661
0KB01	STAUFFER SUPPLY CO	810 SE SHERMAN	PORTLAND, OR 97214-4657
0J260	COMTEK MANUFACTURING OF OREGON	P O BOX 4200 M/S 16-207	BEAVERTON, OR 970764200
0JR05	TRIQUEST PRECISION PLASTICS	3000 COLUMBIA HOUSE BLVD PO BOX 66008	VANCOUVER, WA 98666-6008
0TNX8	WAKEFIELD ENGINEERING INC	60 AUDUBON ROAD	WAKEFIELD, MA 01880
11236	CTS CORPORATION	406 PARR ROAD	BERNE, IN 46711-9506
13103	THERMALLOY INC	2021 W. VALLEY VIEW LN PO BOX 810839	DALLAS, TX 75381-5381
13764	MICRO PLASTICS INC.	HIGHWAY 178 NORTH	FLIPPIN, AR 72634
14949	TROMPETER ELECTRONICS INC.	31186 LA BOYA DR .	WESTLAKE VILLAGE, CA 91362
15454	KETEMA INC	RODAN DIVISION 2900 BLUE STAR ST	ANAHEIM, CA 92806-2591
18565	CHOMERICS INC	77 DRAGON COURT	WOBURN, MA 01880
22526	BERG ELECTRONICS INC	825 OLD TRAIL ROAD	ETTERS, PA 17319-9769
23633	RICHEY ELECTRONICS INC	7441 LINCOLN WAY	GARDEN GROVE, CA 92641
24931	BERG ELECTRONICS INC	RF/COAXIAL DIV 2100 EARLYWOOD DR PO BOX 547	FRANKLIN, IN 46131
27264	MOLEX PRODUCTS COMPANY	2222 WELLINGTON CT.	LISLE, IL 60532
2K262	BOYD CORPORATION	6136 NE 87TH AVENUE	PORTLAND, OR 97220
33096	COLORADO CRYSTAL CORPORATION	2303 W 8TH ST	LOVELAND, CO 80537
50139	ALLEN-BRADLEY COMPANY INC	ELECTRONIC COMPONENTS DIVISION 1414 ALLEN BRADLEY DRIVE	EL PASO, TX 79936
57668	ROHM CORPORATION	15375 BARRANCA PARKWAY SUITE B207	IRVINE, CA 92718
5Y400	TRIAx METAL PRODUCTS INC	1880 SW MERLO DRIVE	BEAVERTON, OR 97006
61058	MATSUSHITA ELECTRIC CORP OF AMERICA	PANASONIC INDUSTRIAL CO DIV TWO PANASONIC WAY	SECAUCUS, NJ 07094

61857	SAN-O INDUSTRIAL CORP	91-3 COLIN DRIVE	HOLBROOK, NY 11741
61935	SCHURTER INC	1016 CLEGG CT PO BOX 750158	PETALUMA, CA 94975-0158
62643	UNITED CHEMI-CON INC	9801 W HIGGINS RD	ROSEMONT, IL 60018-4771
63058	BERG ELECTRONICS INC.	MCKENZIE SOCKET DIV 910 PAGE AVE	FREMONT, CA 94538-7340
65249	BOGEN COMMUNICATIONS INC	% ADVANCED POWER PRODUCTS INC 15125 SW KOLL PARKWAY BLDG 4C	BEAVERTON, OR 97006
71400	BUSSMANN	DIVISION COOPER INDUSTRIES INC PO BOX 14460	ST LOUIS, MO 63178
73743	FISCHER SPECIAL MFG CO	111 INDUSTRIAL RD PO BOX 76500	COLD SPRINGS, KY 41076
73899	JFD ELECTRONIC COMPONENTS	112 MOTT ST	OCEANSIDE, NY 11572-5823
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR PO BOX 500	BEAVERTON, OR 97077-0001
86928	SEASTROM MFG CO INC	456 SEASTROM STREET	TWIN FALLS, ID 83301
91637	DALE ELECTRONIC COMPONENTS	1122 23RD ST	COLUMBUS, NE 68601
93907	CAMCAR DIV OF TEXTRON INC	ATTN: ALICIA SANFORD 516 18TH AVE	ROCKFORD, IL 611045181
98159	RUBBER TECK INC	15627 S BROADWAY	GARDENA, CA 90248
98291	ITT CANNON RF PRODUCTS	585 EAST MAIN STREET	NEW BRITAIN, CT 06051
9M860	ESAM INC	PO BOX 376	GRANTS PASS, OR 97526
TK0198	HAMILTON HALLMARK	9750 SW NIMBUS AVE	BEAVERTON, OR 97005
TK0435	LEWIS SCREW CO.	4300 SOUTH RACINE AVENUE	CHICAGO, IL 60609
TK0977	ELECTRICAL INSULATION SUPPLIERS	3549 NW YEON	PORTLAND, OR 97210
TK1146	MITSUBISHI ELECTRONICS INC	986 WALSH AVE	SANTA CLARA, CA 95050
TK1547	MOORE ELECTRONICS INC	19500 SW 90TH CT PO BOX 1030	TUALATIN, OR 97062
TK1828	LITE SPECIALTY METAL WORKS	20460 SW AVERY CT	TUALATIN, OR 97062
TK1857	HIROSE ELECTRIC USA INC	2688 WESTHILLS COURT	SIMI VALLEY, CA 93065-6235
TK1947	NORTHWEST ETCH TECHNOLOGY	2601 S HOOD ST PO BOX 110610	TACOMA, WA 98411-0610
TK2562	MOLDING SPECIALITIES INC	3000 COLUMBIA HOUSE BLVD	VANCOUVER, WA 98661-2999

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A1	671-0909-02			CIRCUIT BD ASSY:FRONT PANEL	80009	671-0909-02
A2	671-1693-08			CIRCUIT BD ASSY:OSCILLATOR	80009	671-1693-08
A2A1	119-3893-04			OVEN ASSEMBLY:14.4000MHZ	80009	119-3893-04
A2A2	119-4304-01			OVEN ASSEMBLY:14.835165MHZ	80009	119-4304-01
A2A3	671-1939-01			CIRCUIT BD ASSY:OSCILLATOR FILTER	80009	671-1939-01
A3	671-1789-08			CIRCUIT BD ASSY:OUTPUT	80009	671-1789-08
A3A1	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A2	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A3	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A4	119-3402-04			OVEN ASSEMBLY:14.8500MHZ	80009	119-3402-04
A3A5	671-1939-01			CIRCUIT BD ASSY:OSCILLATOR FILTER	80009	671-1939-01
A3A6	671-2277-00			CIRCUIT BD ASSY:ANALOG DELAY	80009	671-2277-00
A3A7	671-2278-00			CIRCUIT BD ASSY:DIGITAL DELAY	80009	671-2278-00
A4	671-0912-04			CIRCUIT BD ASSY:POWER SUPPLY	80009	671-0912-04
A5	671-0911-05			CIRCUIT BD ASSY:CONTROLLER	80009	671-0911-05
A6	671-1671-04			CIRCUIT BD ASSY:DIGITAL OUT	80009	671-1671-04
A7	671-1672-03			CIRCUIT BD ASSY:PEDESTAL	80009	671-1672-03
A8	671-1345-02			CIRCUIT BD SUBASSY:CLOCK INPUT	80009	671-1345-02
A9	119-3827-00			DISPLAY,ELEC:VACUUM FLORESCENT	05464	3601-87-032
A10	671-2264-00			CIRCUIT BD ASSY:HV DRIVE	80009	671-2264-00
A17	671-2028-09			CIRCUIT BD ASSY:RAM LINE EXTENDER (OPTION 07 ONLY)	80009	671-2028-09
A31	671-2609-01			CIRCUIT BD ASSY:ZONEPLATE (OPTION 21 ONLY)	80009	671-2609-01
A1	671-0909-02			CIRCUIT BD ASSY:FRONT PANEL	80009	671-0909-02
A1DS29	150-1049-00			DIODE,OPTO:LED,RED/GREEN,BI-COLOR,T1 3/4,SPR 54MWW	05464	232RG 80317 (SPECIAL)
A1P302	174-1771-00			CA ASSY,SP,ELEC:34,28 AWG,6.75 L,RIBBON	TK1547	174-1771-00
A1P402	174-1771-00			CA ASSY,SP,ELEC:34,28 AWG,6.75 L,RIBBON	TK1547	174-1771-00
A1S1	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S2	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S3	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S4	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S5	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S6	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S7	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S8	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S9	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S10	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S11	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S12	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S13	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S14	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S15	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
	366-0779-00			*ATTACHED PARTS*		
				PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS	TK2635	SCGRY1
A1S17	260-2671-00			*END ATTACHED PARTS*		
				SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP	TK2635	SKECFL
				*ATTACHED PARTS*		

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S18	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S19	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S22	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S23	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S25	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S26	260-2671-00			SWITCH,PUSH:SPST,MOM,NO,100 GRM FRC,COND RUBBER CONTACTS,GRN LED,W/KEYCAP *ATTACHED PARTS*	TK2635	SKECFL
	366-0779-00			PUSH BUTTON:PUSH BUTTON,KEYTOP W/LENS *END ATTACHED PARTS*	TK2635	SCGRY1
A1S33	311-2193-00			ENCODR,DGTL:INCREMENTAL,2 CHAN,50PPR/CH ROTARY *MOUNTING PARTS*	61058	EWT-XAK01950B
	210-0978-00			WASHER,FLAT:0.375 ID X 0.5 OD X 0.024,STL CD PL	86928	ORDER BY DESCR
	220-0495-00			NUT,PLAIN,HEX:0.375-32 X 0.438 HEX,BRS,CD PL *END MOUNTING PARTS*	73743	ORDER BY DESCR
A2	671-1693-08			CIRCUIT BD ASSY:OSCILLATOR *ATTACHED PARTS*	80009	671-1693-08
	337-3756-00			SHIELD,ELEC:TSG1001 *END ATTACHED PARTS*	TK1947	337-3756-00
A2C165	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2C168	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2C600	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C601	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A2C602	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C603	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C700	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C701	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A2C702	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C703	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C800	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2C801	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C802	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C803	283-0644-00			CAP,FXD,MICA DI:150PF,1%,500V	09023	CD15FD151F03
A2C804	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C805	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C806	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C807	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C808	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C812	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C819	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C900	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C902	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1200	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1201	283-0642-00			CAP,FXD,MICA DI:33PF,2%,500V,0.370 X 0.340,RADIAL	09023	CD10ED330G03
A2C1202	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1203	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1220	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A2C1221	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1222	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1300	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1301	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1302	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1303	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1304	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1305	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1306	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1307	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1308	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1309	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1310	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1311	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1312	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1313	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1314	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1315	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1316	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1317	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1318	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1319	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1320	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1321	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1322	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1323	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1324	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1325	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1326	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1327	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1328	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1329	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1330	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1331	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1332	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1333	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1334	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2C1419	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2C1420	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2C1421	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2C1422	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2C1423	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A2CR800	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A2CR801	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A2CR802	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A2CR803	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A2CR804	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A2CR805	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A2CR806	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A2CR807	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A2DL900	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A2DL901	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A2DL910	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A2DL911	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A2DS600	150-1017-00			LT EMITTING DIO:GREEN,550NM,55MA MAX	50434	HLMP3910
A2DS700	150-1017-00			LT EMITTING DIO:GREEN,550NM,55MA MAX	50434	HLMP3910
A2J1	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A2J2	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A2J14	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J15	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J16	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J17	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J18	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J19	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A2J20	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J21	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J22	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A2J600	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A2J601	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2J700	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A2J701	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2J800	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2J900	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A2J901	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A2J910	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 9)	22526	48283-018
A2J911	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 9)	22526	48283-018
A2J920	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2J921	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A2J922	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A2J923	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A2L600	108-0249-00			INDUCTOR,FXD:CUSTOM,SIGNAL,12UH,10%,IDC<75 MA,RDC<1.68 OHM,Q>52@2.5MHZ,SRF>18MHZ,AXIAL	OJR03	108-0249-00
A2L700	108-0249-00			INDUCTOR,FXD:CUSTOM,SIGNAL,12UH,10%,IDC<75 MA,RDC<1.68 OHM,Q>52@2.5MHZ,SRF>18MHZ,AXIAL	OJR03	108-0249-00
A2L800	108-0735-00			INDUCTOR,FXD:CUSTOM,SIGNAL,584NH,2%,Q<58@25MHZ ,ON FORM 276-0153-00,24T W/34 AWG,AXIAL	OJR03	108-0735-00
A2L801	108-1112-00			INDUCTOR,FXD:CUSTOM,SIGNAL,170UH,10%,ON FORM 276-0288-00,105T W/38 AWG,AXIAL	OJR03	108-1112-00
A2L802	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2L803	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2L804	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2L806	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2P601	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P701	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P800	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P900	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P901	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2P910	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P911	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2P920	131-0993-05			BUS,CONDUCTOR:SHUNT ASSEMBLY,GREEN	00779	850100-5
A2Q600	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A2Q601	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A2Q602	151-0656-00			TRANSISTOR,PWR:BIPOLAR,NPN,80V,8.0A,4.0MHZ,DARLINGTON,AMPLIFIER,2N6044,TO-220	04713	2N6044
A2Q700	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A2Q701	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A2Q702	151-0656-00			TRANSISTOR,PWR:BIPOLAR,NPN,80V,8.0A,4.0MHZ,DARLINGTON,AMPLIFIER,2N6044,TO-220	04713	2N6044
A2Q1200	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A2Q1201	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A2R200	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=TO,SMALL BODY	57668	CRB20T68EFX4991
A2R201	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R202	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R203	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R204	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R205	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R206	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R207	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R208	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R209	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R210	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R211	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R300	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 3K57
A2R410	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R412	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R414	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R416	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R418	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R420	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2R422	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R424	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R426	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R428	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R530	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R532	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R534	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R536	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R538	307-0486-00			RES NTWK,FXD,FI:100 OHM,20%,1.125W	11236	750-101-R100OHM OR 770-101-R
A2R600	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R602	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R604	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R606	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R610	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R611	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R612	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R613	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R614	322-3426-00			RES,FXD,FILM:267K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2673F-R36
A2R615	322-3335-00			RES,FXD,FILM:30.1K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 30K1
A2R616	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R617	322-3324-00			RES,FXD,FILM:23.2K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2322F-R36
A2R618	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A2R619	308-0677-00			RES,FXD,WW:1 OHM,5%,2W AXIAL LEAD	75042	SPH 1 OHM 5 PERCENT (TAPE SPA
A2R620	322-3414-00			RES,FXD:METAL FILM,200K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB 20 FXE 200 K OHM
A2R621	322-3354-00			RES,FXD:METAL FILM,47.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4752
A2R622	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A2R630	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R632	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R634	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R636	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2R700	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R702	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R704	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R706	307-0503-00			RES NTWK,FXD,FI:(9) 510 OHM,20%,0.125W,TC=50PPM/DEG C,BULK	11236	750-101-R510 OR 770-101-R510
A2R710	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R711	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R712	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R713	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R714	322-3426-00			RES,FXD,FILM:267K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2673F-R36
A2R715	322-3335-00			RES,FXD,FILM:30.1K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 30K1
A2R716	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R717	322-3324-00			RES,FXD,FILM:23.2K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2322F-R36
A2R718	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A2R719	308-0677-00			RES,FXD,WW:1 OHM,5%,2W AXIAL LEAD	75042	SPH 1 OHM 5 PERCENT (TAPE SPA
A2R720	322-3414-00			RES,FXD:METAL FILM,200K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB 20 FXE 200 K OHM
A2R721	322-3354-00			RES,FXD:METAL FILM,47.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4752
A2R722	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A2R800	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A2R801	301-0111-00			RES,FXD,FILM:110 OHM,5%,0.50W MI	19701	5053CX110R0J
A2R803	307-1203-00			RES NTWK,FXD,FI:100OHM,10 PIN ISOLATED	50139	710B101
A2R804	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R805	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R806	322-3201-00			RES,FXD:METAL FILM,1.21K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1211
A2R807	311-2234-00			RES,VAR,TRMR:CERMET,5K OHM,20%,0.5W,0.197 SQ,TOP ADJUST,T&R	TK2073	GF06UT2 502 M L20
A2R808	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R809	322-3176-00			RES,FXD,FILM:665 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-6650F-R36
A2R810	322-3201-00			RES,FXD:METAL FILM,1.21K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1211
A2R811	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R812	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R813	322-3176-00			RES,FXD,FILM:665 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-6650F-R36
A2R815	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R816	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2R900	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R901	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R902	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R903	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R904	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R905	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R907	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R908	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R910	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R911	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R912	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R913	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R914	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R915	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R916	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R917	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R925	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 3K57
A2R926	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 3K57
A2R931	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R932	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R933	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2R1200	322-3243-00			RES,FXD:METAL FILM,3.32K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-3321F-R36
A2R1201	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A2R1202	322-3066-00			RES,FXD,FILM:47.5 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	09969	CCF50-47R5F-R36
A2R1203	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A2R1300	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A2S600	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S601	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S602	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S603	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S604	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S605	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S606	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2S607	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S630	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S631	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S632	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S633	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S634	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S635	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S636	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S637	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S700	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S701	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S702	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S703	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S704	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S705	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S706	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2S707	260-2244-00			SWITCH,ROTARY:DIP,10 POSITION 4991	TK6053	KDS 10-122
A2TP1300	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1301	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1302	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1303	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1304	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1305	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1306	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1307	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1308	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1309	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1310	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1311	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2TP1312	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2U100	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A2U101	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20.3,TUBE	01295	SN74LS244N
A2U102	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20.3,TUBE	01295	SN74LS244N
A2U103	160-7822-02			IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160782202
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A2U104	156-1724-00			IC,DIGITAL:FTTL,GATE,QUAD 2-INPUT OR,74F32,DIP14.3,TUBE	01295	SN74F32N

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2U105	156-0982-03			IC,DIGITAL:LSSTL,FLIP FLOP,74LS374,DIP20.3,TUBE	01295	SN74LS374N
A2U106	156-0982-03			IC,DIGITAL:LSSTL,FLIP FLOP,4LS374,DIP20.3,TUBE	01295	SN74LS374N
A2U107	156-0469-02			IC,DIGITAL:LSSTL,DEMUX/DCCR,74LS138,DIP16.3,TUBE	01295	SN74LS138N
A2U108	156-0469-02			IC,DIGITAL:LSSTL,DEMUX/DCCR,74LS138,DIP16.3,TUBE	01295	SN74LS138N
A2U109	160-7091-01			IC,DIGITAL:CMOS,16 X 8 EPROM,27C128	TK0198	160709101
	136-0755-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM *END MOUNTING PARTS*	98291	DIPS28PIT
A2U110	156-0368-03			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10124P
A2U111	156-0469-02			IC,DIGITAL:LSSTL,DEMUX/DCCR,74LS138,DIP16.3,TUBE	01295	SN74LS138N
A2U200	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U201	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U202	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U204	160-7823-01			IC,MEMORY:ECL,PLD,PAL,10E301,6NS,170MA,10E301L-6,DI P 24.3,TUBE	80009	160-7823-01
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015 *END MOUNTING PARTS*	00779	2-641932-3
A2U205	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A2U206	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A2U207	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A2U208	156-1962-00			IC,DGTL:FTTL,BFR,OCTAL,3-STATE,74F244,DIP20.3,TUBE	04713	MC74F244N
A2U210	156-1662-00			IC,DIGITAL:FTTL,MUX,DUAL 4-TO-1,74F153,DIP16.3,TUBE	04713	MC74F153N
A2U211	156-1662-00			IC,DIGITAL:FTTL,MUX,DUAL 4-TO-1,74F153,DIP16.3,TUBE	04713	MC74F153N
A2U300	156-1722-00			IC,DIGITAL:FTTL,GATE,HEX INVERTER,74F04,DIP14.3,TUBE	04713	MC74F04N
A2U310	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U311	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U312	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U313	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U320	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U321	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U322	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U323	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U330	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U331	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A2U332	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2U333	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A2U410	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U412	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U414	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U416	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U418	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U420	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U422	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U424	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U426	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U428	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U530	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U532	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U534	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U536	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U538	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A2U600	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U602	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U604	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U606	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U610	156-0158-07			IC,LINEAR:BIPOLAR,OP-AMPM,MC1458P1,DIP08.3	01295	MC1458P
A2U630	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U632	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U634	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U636	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U700	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U702	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U704	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N
A2U706	156-0956-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,3-STATE,74LS244,DIP20. 3,TUBE	01295	SN74LS244N

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2U800	156-3047-00			IC,LINEAR:BIPOLAR,AMPLIFIER,RF AMP,20DB GAIN,600MHZ,NE5205AN,DIP08.3	1CH66	NE5205AN
A2U801	156-3047-00			IC,LINEAR:BIPOLAR,AMPLIFIER,RF AMP,20DB GAIN,600MHZ,NE5205AN,DIP08.3	1CH66	NE5205AN
A2U802	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A2U803	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A2U804	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A2U807	156-1641-00			IC,DIGITAL:ECL,GATE,QUAD 2-INPUT NOR,10H102,DIP16.3,TUBE	04713	MC10H102P
A2U900	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A2U901	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A2U901	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A2U902	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A2U905	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD ECL-TO-TTL,10H125,DIP16.3,TUBE	04713	MC10H125P
A2U906	160-7824-03			IC,DIGITAL:STTL,PLD,PAL,22V10,35NS,18MHZ,180MA,22V10-35,DIP24.3,TUBE	TK0198	160-7824-03
				*MOUNTING PARTS*		
	136-0925-00			SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A2U907	156-1889-00			IC,DIGITAL:ECL,COUNTER,UNIVERSAL HEXADECIMAL,10H136,DIP16.3,TUBE	04713	MC10H136P
A2U908	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A2U1200	156-1173-00			IC,LINEAR:BIPOLAR,VOLTAGE REFERENCE,POSITIVE,2.5V,1.0%,40PPM,SERIES,MC1403U,DIP08.3	04713	MC1403U
A2U1201	156-0512-02			IC,LINEAR:BIPOLAR,OP-AMP,LM308N,DIP08.3	04713	LM308N
A2VR600	152-0688-00			DIODE,ZENER:2.4V,5%,0.4W,1N4370A,DO-7 OR DO-35	04713	1N4370A
A2VR700	152-0688-00			DIODE,ZENER:2.4V,5%,0.4W,1N4370A,DO-7 OR DO-35	04713	1N4370A
A2A1	119-3893-04			OVEN ASSEMBLY:14.4000MHZ	80009	119-3893-04
A2A1C6	283-5238-00			CAP,FXD,CER:MLC,150PF,5%,100V,NPO,1206,SMD,8MM	04222	12061A151JAT1A
A2A1C8	283-5025-00			CAP,FXD,CERAMIC:MLC,220PF,5%,50V,NPO,1206,SMD,8MM	04222	12065A221JAT1A
A2A1C15	283-5007-00			CAP,FXD,CER:MLC,8PF,+/-0.5PF,50V,NPO,1206,SMD,8MM	04222	12065A8RODAT1A
A2A1C16	283-5206-00			CAP,FXD,CER DI:56PF,5%,100V (0805 SMD)T&R	04222	0805A560JAT050R
A2A1C17	283-5004-00			CAP,FXD,CER:MLC,0.1UF,10%,25V,X7R,1206,SMD,8MM T&R	04222	12063C104KAT3A
A2A1Q10	151-5035-00			TRANSISTOR,SIG:BIPOLAR,NPN,25V,30MA,650MHZ,AMPLIFIER,MMBTH10L,TO-236/SOT-23,8MM T&R	04713	MMBTH10LT1
A2A1R1	321-5043-00			RES,FXD:THICK FILM,47.5 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCD47R5FT
A2A1R3	307-1161-00			RES,FXD,FILM:1M OHM,5%,0.062W,0805,8MM T&R	50139	ACD1004JT
A2A1R4	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A2A1R5	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A2A1R9	321-5012-00			RES,FXD:THICK FILM,332 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCK3320FT

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2A1Y1	-----			XTAL UNIT,QTZ:14.4000MHZ,+/-0.0005%,PRL,CL=32PF,RE-SIST AT RESONANCE 10 OHM,PKG HC-43/U (REPLACEABLE AT A2A1 ONLY)		
A2A2	119-4304-01			OVEN ASSEMBLY:14.835165MHZ	80009	119-4304-01
A2A2C6	283-5238-00			CAP,FXD,CER:MLC,150PF,5%,100V,NPO,1206,SMD,8MM	04222	12061A151JAT1A
A2A2C8	283-5025-00			CAP,FXD,CERAMIC:MLC,220PF,5%,50V,NPO,1206,SMD,8MM	04222	12065A221JAT1A
A2A2C15	283-5007-00			CAP,FXD,CER:MLC,8PF,+/-0.5PF,50V,NPO,1206,SMD,8MM	04222	12065A8R0DAT1A
A2A2C16	283-5206-00			CAP,FXD,CER DI:56PF,5%,100V (0805 SMD)T&R	04222	0805A560JAT050R
A2A2C17	283-5004-00			CAP,FXD,CER:MLC,0.1UF,10%,25V,X7R,1206,SMD,8MM T&R	04222	12063C104KAT3A
A2A2Q10	151-5035-00			TRANSISTOR,SIG:BIPOLAR,NPN,25V,30MA,650MHZ,AMPLIFIER,MMBTH10L,TO-236/SOT-23,8MM T&R	04713	MMBTH10LT1
A2A2R1	321-5043-00			RES,FXD:THICK FILM,47.5 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCD47R5FT
A2A2R3	307-1161-00			RES,FXD,FILM:1M OHM,5%,0.062W,0805,8MM T&R	50139	ACD1004JT
A2A2R4	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A2A2R5	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A2A2R9	321-5012-00			RES,FXD:THICK FILM,332 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCK3320FT
A2A2Y1	-----			XTAL UNIT,QTZ:114.835165 MHZ, 5 PPM,PARALLEL,CL=32PF, RS 10 OHM,PKG HC-43/U,FORMED CRYSTAL LEADS (REPLACEABLE AT A2A2 ONLY)		
A2A3	671-1939-01			CIRCUIT BD ASSY:OSCILLATOR FILTER	80009	671-1939-01
A2A3C1	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C2	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C3	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C4	283-0767-00			CAP,FXD,MICA DI:107 PF,1%,500V	09023	CD15FD(107)F03
A2A3C5	283-0680-00			CAP,FXD,MICA DI:330PF,1%,500V	09023	CD15FD331F03
A2A3C6	283-0600-00			CAP,FXD,MICA DI:43PF,5%,500V	09023	CD10ED430J03
A2A3C7	283-0140-00			CAP,FXD,CER DI:4.7PF,+/-0.25PF,50V	51642	A100-050-NPO-479 C
A2A3C8	283-0853-00			CAP,FXD,CER DI:2.2PF,200V MI	04222	SR592A2R2DAAAP1
A2A3C9	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A2A3C10	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C11	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C12	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C13	283-0636-00			CAP,FXD,MICA DI:36PF,2%,500V,0.370 X 0.460,RADIAL	09023	CDA15ED360G03
A2A3C14	283-0636-00			CAP,FXD,MICA DI:36PF,2%,500V,0.370 X 0.460,RADIAL	09023	CDA15ED360G03
A2A3C15	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C16	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C17	283-0639-00			CAP,FXD,MICA DI:56PF,1%,500V	09023	CD15ED560F03
A2A3C18	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C19	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C20	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3C21	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A2A3J1	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A3J3	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2A3J4	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A3J5	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A3J6	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A2A3J7	131-5224-00			CONN,BOX:PCB,FEMALE,STR,1 X 5,0.1 CTR,0.14 TAIL,BOTTOM ENTRY,W/2 X 5 PCB,0.042 PTH X 0.0 (QUANTITY 5)	27264	22-17-2052
A2A3J8	131-5224-00			CONN,BOX:PCB,FEMALE,STR,1 X 5,0.1 CTR,0.14 TAIL,BOTTOM ENTRY,W/2 X 5 PCB,0.042 PTH X 0.0 (QUANTITY 5)	27264	22-17-2052
A2A3L1	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2A3L2	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2A3L3	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	OJR03	114-0476-00
A2A3L4	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	OJR03	114-0476-00
A2A3L5	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	OJR03	114-0476-00
A2A3L6	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	OJR03	114-0476-00
A2A3L7	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A2A3P6	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A2A3Q1	151-0427-00			TRANSISTOR,SIG:BIPOLAR,NPN,15V,50MA,900 MHZ,AMPLIFIER,2N5770,TO-92 EBC	07263	2N5770
A2A3R1	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A2A3R2	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A2A3R3	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A2A3R4	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A2A3R6	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A2A3R7	322-3143-00			RES,FXD,FILM:301 OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 301E
A2A3R8	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A2A3R9	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A2A3R10	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20T68EFX4990
A2A3R11	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20T68EFX4990
A2A3R12	322-3066-00			RES,FXD,FILM:47.5 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	09969	CCF50-47R5F-R36
A2A3R13	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A2A3R14	322-3070-00			RES,FXD,FILM:52.3 OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 52E3
A2A3TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A2A3TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A2A3U1	156-3047-00			IC,LINEAR:BIPOLAR,AMPLIFIER,RF AMP,20DB GAIN,600MHZ,NE5205AN,DIP08.3	1CH66	NE5205AN
A2A3U2	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A3	671-1789-08			CIRCUIT BD ASSY:OUTPUT	80009	671-1789-08
A3C16	281-0153-00			CAP,VAR,AIR DI:1.7-10PF,150V TOP ADJ		187-0106-055
A3C18	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C19	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C20	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C21	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C25	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C26	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C27	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C28	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C30	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C32	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C33	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C34	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C35	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C36	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C37	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C38	283-0601-00			CAP,FXD,MICA DI:22PF,10%,300V	09023	CD15ED220K03
A3C39	283-0330-00			CAP,FXD,CER:100PF,5%,50V,0.200 X 0.200,0.1LS,RADIAL	16546	CN15C101J
A3C40	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C44	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C45	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C46	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C47	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C51	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C52	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C53	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C54	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C55	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C56	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C57	283-0601-00			CAP,FXD,MICA DI:22PF,10%,300V	09023	CD15ED220K03
A3C58	283-0330-00			CAP,FXD,CER:100PF,5%,50V,0.200 X 0.200,0.1LS,RADIAL	16546	CN15C101J
A3C59	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C63	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C64	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C65	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C66	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C70	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C71	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C72	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C73	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3C74	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C75	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C76	283-0601-00			CAP,FXD,MICA DI:22PF,10%,300V	09023	CD15ED220K03
A3C77	283-0330-00			CAP,FXD,CER:100PF,5%,50V,0.200 X 0.200,0.1LS,RADIAL	16546	CN15C101J
A3C78	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C86	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C87	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C90	283-0330-00			CAP,FXD,CER:100PF,5%,50V,0.200 X 0.200,0.1LS,RADIAL	16546	CN15C101J
A3C93	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C94	283-0644-00			CAP,FXD,MICA DI:150PF,1%,500V	09023	CD15FD151F03
A3C113	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C143	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C144	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C145	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C146	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C147	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C148	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C149	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C150	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C151	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C152	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C153	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C154	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C155	283-0642-00			CAP,FXD,MICA DI:33PF,2%,500V,0.370 X 0.340,RADIAL	09023	CD10ED330G03
A3C156	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C157	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C158	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C159	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C160	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C161	283-0642-00			CAP,FXD,MICA DI:33PF,2%,500V,0.370 X 0.340,RADIAL	09023	CD10ED330G03
A3C177	281-0153-00			CAP,VAR,AIR DI:1.7-10PF,150V TOP ADJ		187-0106-055
A3C179	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C180	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C181	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C182	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C200	281-0153-00			CAP,VAR,AIR DI:1.7-10PF,150V TOP ADJ		187-0106-055
A3C202	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C203	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C204	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C205	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C236	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C237	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C238	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C240	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C241	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C242	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C243	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C244	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3C245	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C246	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C247	283-0898-00			CAP,FXD,CER DI:2.7PF,50V,0.25% TAPED & REELED	04222	SR295A2R7CAAAP1
A3C248	283-0898-00			CAP,FXD,CER DI:2.7PF,50V,0.25% TAPED & REELED	04222	SR295A2R7CAAAP1
A3C249	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C250	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C251	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C252	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C253	283-0159-00			CAP,FXD,CER DI:18PF,5%,50V	04222	SR155A180JAA
A3C254	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C255	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C256	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C257	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C258	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C259	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C260	283-0159-00			CAP,FXD,CER DI:18PF,5%,50V	04222	SR155A180JAA
A3C261	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C262	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C263	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C264	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C265	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C266	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C267	283-0159-00			CAP,FXD,CER DI:18PF,5%,50V	04222	SR155A180JAA
A3C268	283-0107-00			CAP,FXD,CER DI:51PF,5%,200V SQUARE	04222	SR292A510JAA
A3C269	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C270	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C271	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C272	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C273	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C274	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A3C275	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C276	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C282	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C283	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C284	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C285	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C286	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C287	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C288	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C289	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C290	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3C291	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A3C293	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C294	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C295	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C296	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C297	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C298	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C299	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C300	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C304	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3C307	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C314	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A3C315	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A3C316	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A3C317	283-0780-00			CAP,FXD,MICA DI:125PF,1%,500V	09023	CD15FD(125)F03
A3C318	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C319	290-0748-00			CAP,FXD,ELCTL:10UF,+50-20%,25WVDC AL	62643	CEUST1E100
A3C321	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C322	290-0748-00			CAP,FXD,ELCTL:10UF,+50-20%,25WVDC AL	62643	CEUST1E100
A3C323	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C325	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C326	283-0066-00			CAP,FXD,CER DI:2.5PF,+/-0.5PF,200V	51642	A100200NP0259D
A3C327	283-0066-00			CAP,FXD,CER DI:2.5PF,+/-0.5PF,200V	51642	A100200NP0259D
A3C328	283-0066-00			CAP,FXD,CER DI:2.5PF,+/-0.5PF,200V	51642	A100200NP0259D
A3C329	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C330	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C331	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C332	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C333	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C334	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C335	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C336	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C337	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C338	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C339	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C340	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C341	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C342	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C343	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C344	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C345	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C346	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C347	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C348	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C349	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C350	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C351	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C352	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C353	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C354	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C355	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C356	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C357	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C358	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C359	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C360	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C361	283-0766-00			CAP,FXD,MICA DI:47 PF,1%,500V	09023	CD15ED470D03
A3C362	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C363	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3C364	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3CR3	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF, 5082-2810,HP "15"	21847	A2X1582
A3CR4	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF, 5082-2810,HP "15"	21847	A2X1582

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3CR5	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A3CR6	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A3CR13	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR14	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR15	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR16	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR17	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR18	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR20	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A3CR21	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A3CR22	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A3DL1	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A3DL2	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A3DL3	119-4106-00			DELAY LINE,ELEC:VARIABLE 0-15NS,50 OHM,TR 3NS,1503-15A,1.3IN LONG DIP	22519	1503-15A
A3DL4	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A3DL5	119-4106-00			DELAY LINE,ELEC:VARIABLE 0-15NS,50 OHM,TR 3NS,1503-15A,1.3IN LONG DIP	22519	1503-15A
A3DS1	150-1017-00			LT EMITTING DIO:GREEN,550NM,55MA MAX	50434	HLMP3910
A3E1	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E2	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E3	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E4	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E5	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E6	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E7	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E8	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E9	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E10	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E11	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E12	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E13	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E14	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112
A3E15	276-0818-00			COIL,EM:BEAD ON LEAD,Z=100 OHM (100MHZ,OD=0.138,LENGTH=0.263	34899	2743003112

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3J1	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J2	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J8	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 3)	22526	48283-018
A3J21	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J22	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J23	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 3)	22526	48283-018
A3J24	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A3J27	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J28	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J34	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J35	131-3378-00			CONN,RF JACK:BNC,50 OHM,FEMALE,RTANG,PCB/REAR PNL,0.5-28 THD,0.625 H X 0.187 TAIL,W/O MTG FL	00779	227677-1
A3J46	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J47	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J48	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J49	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J50	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J51	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J52	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J53	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J54	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J55	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J56	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J57	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD	22526	47359-001
A3J41	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 5)	22526	48283-018
A3J58	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 5)	22526	48283-018
A3J59	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A3J60	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3J61	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A3J62	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A3J63	131-5301-00			CONN,HDR:PCB,MALE,STR,1 X 2,0.1 CTR,0.897 MLG X 0.128 TAIL,30 GOLD	22526	65649-102
A3J64	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 20)	22526	48283-018
A3J65	131-5301-00			CONN,HDR:PCB,MALE,STR,1 X 2,0.1 CTR,0.897 MLG X 0.128 TAIL,30 GOLD	22526	65649-102
A3J66	131-5301-00			CONN,HDR:PCB,MALE,STR,1 X 2,0.1 CTR,0.897 MLG X 0.128 TAIL,30 GOLD	22526	65649-102
A3J67	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A3J68	131-5301-00			CONN,HDR:PCB,MALE,STR,1 X 2,0.1 CTR,0.897 MLG X 0.128 TAIL,30 GOLD	22526	65649-102
A3J69	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 4)	22526	48283-018
A3J71	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 4)	22526	48283-018
A3J73	131-0391-00			CONN,RF JACK:SMB,MALE,STR,PCB,GOLD/GOLD,0.293 H X 0.155 TAIL,3/0.045 SQ TAIL 0.038 DIA CTR C	24931	32JR105-1
A3J75	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J76	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J77	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J78	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J79	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A3J80	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J81	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J82	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A3J83	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3J84	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A3L17	108-0735-00			INDUCTOR,FXD:CUSTOM,SIGNAL,584NH,2%,Q<58@25MHZ ,ON FORM 276-0153-00,24T W/34 AWG,AXIAL	0JR03	108-0735-00

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3L18	108-1112-00			INDUCTOR,FXD:CUSTOM,SIGNAL,170UH,10%,ON FORM 276-0288-00,105T W/38 AWG,AXIAL	OJR03	108-1112-00
A3L22	108-0734-00			INDUCTOR,FXD:CUSTOM,SIGNAL,163NH,Q>59@25MHZ,ON FORM 276-0153-00,AXIAL	OJR03	108-0734-00
A3L23	108-0734-00			INDUCTOR,FXD:CUSTOM,SIGNAL,163NH,Q>59@25MHZ,ON FORM 276-0153-00,AXIAL	OJR03	108-0734-00
A3L24	108-0734-00			INDUCTOR,FXD:CUSTOM,SIGNAL,163NH,Q>59@25MHZ,ON FORM 276-0153-00,AXIAL	OJR03	108-0734-00
A3L25	108-0249-00			INDUCTOR,FXD:CUSTOM,SIGNAL,12UH,10%,IDC<75 MA,RDC<1.68 OHM,Q>52@2.5MHZ,SRF>18MHZ,AXIAL	OJR03	108-0249-00
A3L26	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L27	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L28	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L29	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L30	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L31	108-0642-00			INDUCTOR,FXD:CUSTOM,SIGNAL,30NH,15%,Q>50@50MHZ,ON FORM 276-0145-00,AXIAL	OJR03	108-0642-00
A3L33	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A3L34	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	OJR03	108-0212-00
A3L35	120-0487-00			TRANSFORMER,FXD:CUSTOM,BIFILAR,5T,TOROID,3T2, VERT MOUNT	OJR03	120-0487-00
A3L36	120-0487-00			TRANSFORMER,FXD:CUSTOM,BIFILAR,5T,TOROID,3T2, VERT MOUNT	OJR03	120-0487-00
A3L37	108-0260-00			INDUCTOR,FXD:CUSTOM,SIGNAL,98NH,Q>105@25MHZ,ON FORM 276-0153-00,AXIAL	OJR03	108-0260-00
A3P8	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A3P23	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A3P58	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A3P77	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A3P82	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A3Q2	151-0656-00			TRANSISTOR,PWR:BIPOLAR,NPN,80V,8.0A,4.0MHZ,DARLINGTON,AMPLIFIER,2N6044,TO-220	04713	2N6044
A3Q14	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A3Q15	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A3Q16	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A3Q17	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A3Q18	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A3Q20	151-0699-00			TRANSISTOR:DARLINGTON,NPN,SI,TO-92 U2TA508	12969	U2TA508
A3Q21	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3Q22	151-0223-00			TRANSISTOR,SIG:BIPOLAR,NPN,15V,500MA,SWITCHING,MPS2369A,TO-92 EBC	04713	MPS2369A
A3Q23	151-0220-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,400MHZ,AMPLIFIER,2N3906(SEL),TO-92 EBC	01295	SKA5122
A3Q24	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A3Q25	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A3Q26	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A3Q27	151-0720-00			TRANSISTOR,SIG:BIPOLAR,NPN,25V,50MA,650MHZ,AMPLIFIER,MPSH10,TO-92 BEC	04713	MPSH10
A3Q28	151-0720-00			TRANSISTOR,SIG:BIPOLAR,NPN,25V,50MA,650MHZ,AMPLIFIER,MPSH10,TO-92 BEC	04713	MPSH10
A3R11	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R12	322-3075-00			RES,FXD,FILM:59 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 59E
A3R15	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R16	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R17	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A3R22	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R23	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R24	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R25	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R26	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R27	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R28	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3R30	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R31	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R32	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R33	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R34	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R36	322-3147-00			RES,FXD,FILM:332 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 332E
A3R37	322-3101-00			RES,FXD,FILM:110 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-1100F-R36
A3R38	322-3218-00			RES,FXD:METAL FILM,1.82K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K82
A3R39	322-3177-00			RES,FXD:METAL FILM,681 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-6810F-R36
A3R41	311-1307-00			RES,VAR,NONWWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R42	322-3250-00			RES,FXD:METAL FILM,3.92K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-3921F-R36
A3R43	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-7500F-R36

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R44	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R45	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R46	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R53	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R54	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R55	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R56	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R57	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R58	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R60	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3R61	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R62	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R63	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R64	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R65	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R67	322-3147-00			RES,FXD,FILM:332 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 332E
A3R68	322-3101-00			RES,FXD,FILM:110 OHM,1%,0.2W,TC=TO,MI,SMALL BODY	91637	CCF50-1100F-R36
A3R69	322-3218-00			RES,FXD:METAL FILM,1.82K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K82
A3R70	322-3177-00			RES,FXD:METAL FILM,681 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-6810F-R36
A3R72	311-1307-00			RES,VAR,NONWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R73	322-3250-00			RES,FXD:METAL FILM,3.92K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-3921F-R36
A3R74	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-7500F-R36
A3R75	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R76	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R77	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R84	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R85	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R86	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R87	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R88	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R89	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R90	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3R92	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R93	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R94	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R95	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R96	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A3R98	322-3147-00			RES,FXD,FILM:332 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 332E
A3R99	322-3101-00			RES,FXD,FILM:110 OHM,1%,0.2W,TC=TO,MI,SMALL BODY	91637	CCF50-1100F-R36
A3R100	322-3218-00			RES,FXD:METAL FILM,1.82K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K82
A3R101	322-3177-00			RES,FXD:METAL FILM,681 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-6810F-R36
A3R103	311-1307-00			RES,VAR,NONWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R104	322-3250-00			RES,FXD:METAL FILM,3.92K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-3921F-R36
A3R105	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-7500F-R36
A3R106	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R107	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R108	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R119	322-3354-00			RES,FXD:METAL FILM,47.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4752
A3R120	322-3414-00			RES,FXD:METAL FILM,200K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB 20 FXE 200 K OHM
A3R121	322-3318-00			RES,FXD,FILM:METAL FILM,20K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX2002
A3R122	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R123	308-0677-00			RES,FXD,WW:1 OHM,5%,2W AXIAL LEAD	75042	SPH 1 OHM 5 PERCENT (TAPE SPA
A3R124	322-3414-00			RES,FXD:METAL FILM,200K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB 20 FXE 200 K OHM
A3R125	322-3354-00			RES,FXD:METAL FILM,47.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4752
A3R126	322-3426-00			RES,FXD,FILM:267K OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-2673F-R36
A3R127	322-3335-00			RES,FXD,FILM:30.1K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB20 FXE 30K1
A3R143	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R144	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R183	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R184	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R190	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R191	322-3243-00			RES,FXD:METAL FILM,3.32K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	91637	CCF50-3321F-R36
A3R192	322-3066-00			RES,FXD,FILM:47.5 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	09969	CCF50-47R5F-R36
A3R193	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R194	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R195	322-3066-00			RES,FXD,FILM:47.5 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	09969	CCF50-47R5F-R36
A3R196	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R197	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 2K49
A3R209	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R210	322-3075-00			RES,FXD,FILM:59 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 59E
A3R213	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R214	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R215	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A3R228	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R229	322-3075-00			RES,FXD,FILM:59 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 59E
A3R232	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R233	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R234	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A3R311	322-3121-00			RES,FXD,FILM:178 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 178E
A3R355	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R356	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R357	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R358	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R359	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R362	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R363	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R364	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R365	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R366	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R367	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R368	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R369	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R370	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R371	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R372	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R373	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R398	322-3056-00			RES,FXD,FILM:37.4 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-37R4F-R36
A3R399	322-3056-00			RES,FXD,FILM:37.4 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-37R4F-R36
A3R404	311-1568-00			RES,VAR,NONWW:TRMR,50 OHM,0.5W CERMET	32997	3352T-1-500
A3R405	322-3201-00			RES,FXD:METAL FILM,1.21K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1211
A3R406	322-3155-00			RES,FXD,FILM:402 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 402E
A3R407	322-3201-00			RES,FXD:METAL FILM,1.21K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1211
A3R408	322-3155-00			RES,FXD,FILM:402 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 402E
A3R409	322-3121-00			RES,FXD,FILM:178 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 178E
A3R410	311-1568-00			RES,VAR,NONWW:TRMR,50 OHM,0.5W CERMET	32997	3352T-1-500
A3R411	311-1036-00			RES,VAR,NONWW:TRMR,200 OHM,0.5W CERMET	32997	3299W-R27-201
A3R412	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R413	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3R415	317-0047-00			RES,FXD,FILM:4.7 OHM,5%,0.125W	50139	BB47G5
A3R416	322-3328-00			RES,FXD,FILM:25.5K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 25K5
A3R418	317-0047-00			RES,FXD,FILM:4.7 OHM,5%,0.125W	50139	BB47G5
A3R419	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R420	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3R421	311-1036-00			RES,VAR,NONWW:TRMR,200 OHM,0.5W CERMET	32997	3299W-R27-201
A3R422	311-1307-00			RES,VAR,NONWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R423	322-3328-00			RES,FXD,FILM:25.5K OHM,1%,0.2W,TC=T0 MI,SM BODY	57668	CRB20 FXE 25K5
A3R425	317-0047-00			RES,FXD,FILM:4.7 OHM,5%,0.125W	50139	BB47G5
A3R426	311-1307-00			RES,VAR,NONWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R427	311-1036-00			RES,VAR,NONWW:TRMR,200 OHM,0.5W CERMET	32997	3299W-R27-201
A3R428	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R429	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3R430	322-3328-00			RES,FXD,FILM:25.5K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 25K5
A3R432	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R433	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 3K57
A3R435	301-0111-00			RES,FXD,FILM:110 OHM,5%,0.50W MI	19701	5053CX110R0J
A3R438	322-3106-00			RES,FXD,FILM:124 OHM,1%,0.2W,TC=100PPM,T&R,SMALL BODY	91637	CCF50-1240F-R36
A3R439	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5
A3R440	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5
A3R441	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5
A3R442	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R443	322-3106-00			RES,FXD,FILM:124 OHM,1%,0.2W,TC=100PPM,T&R,SMALL BODY	91637	CCF50-1240F-R36
A3R444	322-3106-00			RES,FXD,FILM:124 OHM,1%,0.2W,TC=100PPM,T&R,SMALL BODY	91637	CCF50-1240F-R36
A3R445	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5
A3R446	322-3493-00			RES,FXD,FILM:16.5 OHM,1%,0.2W,TC=T0 TAPED & REELED	57668	CRB20 FXE 16E5
A3R447	322-3267-00			RES,FXD,FILM:5.9K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	56845	CCF50-5901F-R36
A3R448	322-3267-00			RES,FXD,FILM:5.9K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	56845	CCF50-5901F-R36
A3R449	311-1175-00			RES,VAR,NONWW:TRMR,100 OHM,0.5W CERMET	32997	3299W-R27-101
A3R450	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R451	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R452	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R453	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R454	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A3R455	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R456	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R457	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R458	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R459	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R460	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R461	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R462	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A3R463	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R464	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R465	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	56845	CCF50-4751F-R36
A3R466	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R467	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R468	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R469	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R471	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R472	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R473	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R474	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R475	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R478	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R479	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3R480	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3R481	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R482	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3R483	311-1307-00			RES,VAR,NONWWW:TRMR,500 OHM,0.5W CERMET	32997	3299W-1-501
A3R484	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R485	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R486	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R487	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R488	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R489	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3R490	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3R491	322-3123-00			RES,FXD,FILM:187 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 187E
A3R492	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 121E
A3R493	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 T&R,SM BODY	57668	CRB20T68EFX4991
A3R494	322-3318-00			RES,FXD,FILM:METAL FILM,20K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALLBODY	57668	CRB20T68EFX2002
A3R495	322-3126-01			RES,FXD,FILM:200 OHM,0.5%,0.2W,TC=TO SMALL BODY T&R	57668	CRB 20 FXE 200 OHM
A3R496	322-3426-00			RES,FXD,FILM:267K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-2673F-R36
A3R501	322-3148-00			RES,FXD,FILM:340 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-3400F-R36
A3R502	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R503	301-0430-00			RES,FXD,FILM:43 OHM,5%,0.5W MI	19701	5053CX43R00J
A3R504	301-0100-00			RES,FXD,FILM:10 OHM,5%,0.50W MI	19701	SFR30 2322-180-13100
A3R505	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R506	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R507	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 121E
A3R508	322-3123-00			RES,FXD,FILM:187 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 187E
A3R509	322-3160-00			RES,FXD,FILM:453 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 453E
A3R510	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R511	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3R512	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A3R513	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A3R514	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX3011
A3R515	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A3R516	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R517	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R518	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R519	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3R520	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 121E
A3R521	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R522	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3R523	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 121E
A3R524	322-3082-00			RES,FXD,FILM:69.8 OHM,1%,0.2W,TC=T0,T&R,SM BODY	57668	CRB20 FXE 69E8
A3TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP5	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP6	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP7	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP8	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP9	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP10	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP11	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP12	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP13	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3TP14	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3U1	156-3432-00			IC,LINEAR:BIPOLAR,OP-AMP,CURRENT FEEDBACK,200MHZ,CLC400AJP,DIP08.3	62839	CLC400AJP
	136-0727-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 4,0.3 CTR,0.175 H X 0.130 TAIL,TIN,BECU	98291	DIPS08PIT



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3U6	155-0316-00			*END MOUNTING PARTS* MICROCKT,DGTL:12 BIT MULTIPLYING DAC,TKAD30 M460	80009	155-0316-00
	136-0871-00			*MOUNTING PARTS* SOCKET,PLCC:PCB,68 POS,0.05 CTR,0.360 H X 0.125 TAIL,TIN,0.1 CTR PCB,0.060 SHOULDER HEIGHT	00779	3-821574-1
A3U7	156-1640-00			*END MOUNTING PARTS* IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A3U8	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U9	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U10	156-3432-00			IC,LINEAR:BIPOLAR,OP-AMP,CURRENT FEEDBACK,200MHZ,CLC400AJP,DIP08.3	62839	CLC400AJP
	136-0727-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 4,0.3 CTR,0.175 H X 0.130 TAIL,TIN,BECU	98291	DIPS08PIT
A3U11	156-1338-00			*END MOUNTING PARTS* IC,LINEAR:BIPOLAR,OP-AMP,HIGH OUTPUT DRIVE,NE5534N,DIP08.3	01295	NE5534P
A3U12	155-0316-00			MICROCKT,DGTL:12 BIT MULTIPLYING DAC,TKAD30 M460	80009	155-0316-00
	136-0871-00			*MOUNTING PARTS* SOCKET,PLCC:PCB,68 POS,0.05 CTR,0.360 H X 0.125 TAIL,TIN,0.1 CTR PCB,0.060 SHOULDER HEIGHT	00779	3-821574-1
A3U13	156-1640-00			*END MOUNTING PARTS* IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A3U14	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U15	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U16	156-3432-00			IC,LINEAR:BIPOLAR,OP-AMP,CURRENT FEEDBACK,200MHZ,CLC400AJP,DIP08.3	62839	CLC400AJP
	136-0727-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 4,0.3 CTR,0.175 H X 0.130 TAIL,TIN,BECU	98291	DIPS08PIT
A3U17	156-1338-00			*END MOUNTING PARTS* IC,LINEAR:BIPOLAR,OP-AMP,HIGH OUTPUT DRIVE,NE5534N,DIP08.3	01295	NE5534P
A3U18	155-0316-00			MICROCKT,DGTL:12 BIT MULTIPLYING DAC,TKAD30 M460	80009	155-0316-00
	136-0871-00			*MOUNTING PARTS* SOCKET,PLCC:PCB,68 POS,0.05 CTR,0.360 H X 0.125 TAIL,TIN,0.1 CTR PCB,0.060 SHOULDER HEIGHT	00779	3-821574-1
A3U19	156-1640-00			*END MOUNTING PARTS* IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A3U20	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U21	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A3U22	156-3432-00			IC,LINEAR:BIPOLAR,OP-AMP,CURRENT FEEDBACK,200MHZ,CLC400AJP,DIP08.3	62839	CLC400AJP
	136-0727-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 4,0.3 CTR,0.175 H X 0.130 TAIL,TIN,BECU	98291	DIPS08PIT
				*END MOUNTING PARTS*		

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3U23	156-1338-00			IC, LINEAR: BIPOLAR, OP-AMP, HIGH OUTPUT DRIVE, NE5534N, DIP08.3	01295	NE5534P
A3U24	156-0158-07			IC, LINEAR: BIPOLAR, OP-AMP, MC1458P1, DIP08.3	01295	MC1458P
A3U25	156-1640-00			IC, DIGITAL: ECL, RECEIVER, TRIPLE LINE, 10H116, DIP16.3, TUBE	04713	MC10H116P
A3U26	156-1640-00			IC, DIGITAL: ECL, RECEIVER, TRIPLE LINE, 10H116, DIP16.3, TUBE	04713	MC10H116P
A3U31	156-1173-00			IC, LINEAR: BIPOLAR, VOLTAGE REFERENCE, POSITIVE, 2.5V, 1.0%, 40PPM, SERIES, MC1403U, DIP08.3	04713	MC1403U
A3U32	156-0512-02			IC, LINEAR: BIPOLAR, OP-AMP, LM308N, DIP08.3	04713	LM308N
A3U33	156-0512-02			IC, LINEAR: BIPOLAR, OP-AMP, LM308N, DIP08.3	04713	LM308N
A3U34	156-0277-01			IC, LINEAR: BIPOLAR, VOLTAGE REGULATOR, MC7805CT, TO-220	01295	UA7805CKC
				*MOUNTING PARTS*		
	210-0586-00			NUT, PL, ASSEM WA: 4-40 X 0.25, STL CD PL	0KB01	ORDER BY DESCR
	210-1178-00			WASHER, SHLDR: TRANSISTOR, TO-220, 0.2" ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW, MACHINE: 4-40 X 0.312, PNH, STL CD PL, POZ	93907	ORDER BY DESCR
	214-3478-00			HEAT SINK, SEMIC: TRANSISTOR, TO-202, HORZ/VERT MOUNT, ALUMINUM, BLACK ANODIZE, 6278B/577304B00000	13103	6278B
	342-0563-00			INSULATOR, PLATE: TRANSISTOR, FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A3U35	156-0846-00			IC, LINEAR: BIPOLAR, VOLTAGE REGULATOR, NEGATIVE, -5.0V, 1.0A, 4.0%, MC7905CT, TO-220	01295	UA7905CKC
				*MOUNTING PARTS*		
	210-0586-00			NUT, PL, ASSEM WA: 4-40 X 0.25, STL CD PL	0KB01	ORDER BY DESCR
	210-1178-00			WASHER, SHLDR: TRANSISTOR, TO-220, 0.2" ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW, MACHINE: 4-40 X 0.312, PNH, STL CD PL, POZ	93907	ORDER BY DESCR
	214-3478-00			HEAT SINK, SEMIC: TRANSISTOR, TO-202, HORZ/VERT MOUNT, ALUMINUM, BLACK ANODIZE, 6278B/577304B00000	13103	6278B
	342-0563-00			INSULATOR, PLATE: TRANSISTOR, FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A3U36	156-3432-00			IC, LINEAR: BIPOLAR, OP-AMP, CURRENT FEEDBACK, 200MHZ, CLC400AJP, DIP08.3	62839	CLC400AJP
				*MOUNTING PARTS*		
	136-0727-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 4, 0.3 CTR, 0.175 H X 0.130 TAIL, TIN, BECU	98291	DIPS08PIT
				*END MOUNTING PARTS*		
A3U40	156-3432-00			IC, LINEAR: BIPOLAR, OP-AMP, CURRENT FEEDBACK, 200MHZ, CLC400AJP, DIP08.3	62839	CLC400AJP
				*MOUNTING PARTS*		
	136-0727-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 4, 0.3 CTR, 0.175 H X 0.130 TAIL, TIN, BECU	98291	DIPS08PIT
				*END MOUNTING PARTS*		
A3U70	156-1992-00			IC, DIGITAL: ECL, BUFFR, HEX, ENABLE, 10H188, DIP16.3, TUBE	04713	MC10H188P
A3U71	156-1992-00			IC, DIGITAL: ECL, BUFFR, HEX, ENABLE, 10H188, DIP16.3, TUBE	04713	MC10H188P
A3U72	156-1992-00			IC, DIGITAL: ECL, BUFFR, HEX, ENABLE, 10H188, DIP16.3, TUBE	04713	MC10H188P
A3U73	156-1992-00			IC, DIGITAL: ECL, BUFFR, HEX, ENABLE, 10H188, DIP16.3, TUBE	04713	MC10H188P
A3U74	156-1992-00			IC, DIGITAL: ECL, BUFFR, HEX, ENABLE, 10H188, DIP16.3, TUBE	04713	MC10H188P
A3U78	234-0428-20			QUICK CHIP: VIDEO CHANNEL SWITCH, PKG	TK2598	234-0428-20
				*MOUNTING PARTS*		
	136-0752-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE	98291	DIPS20PIT
				*END MOUNTING PARTS*		

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3U79	156-3047-00			IC,LINEAR:BIPOLAR,AMPLIFIER,RF AMP,20DB GAIN,600MHZ,NE5205AN,DIP08.3	1CH66	NE5205AN
A3U83	156-0368-03			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10124,DIP16.3,TUBE	04713	MC10124P
A3U85	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A3U86	156-1992-00			IC,DIGITAL:ECL,BUFFR,HEX,ENABLE,10H188,DIP16.3,TUBE	04713	MC10H188P
A3U87	156-1992-00			IC,DIGITAL:ECL,BUFFR,HEX,ENABLE,10H188,DIP16.3,TUBE	04713	MC10H188P
A3U88	156-1992-00			IC,DIGITAL:ECL,BUFFR,HEX,ENABLE,10H188,DIP16.3,TUBE	04713	MC10H188P
A3U89	156-1992-00			IC,DIGITAL:ECL,BUFFR,HEX,ENABLE,10H188,DIP16.3,TUBE	04713	MC10H188P
A3U90	156-1992-00			IC,DIGITAL:ECL,BUFFR,HEX,ENABLE,10H188,DIP16.3,TUBE	04713	MC10H188P
A3U91	156-0385-02			IC,DIGITAL:LSTTL,GATES,74LS04,DIP14.3,TUBE	01295	SN74LS04N
A3VR1	152-0688-00			DIODE,ZENER:2.4V,5%,0.4W,1N4370A,DO-7 OR DO-35	04713	1N4370A
A3W1	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3W2	174-2334-00			CABLE,RF:75 OHM COAX,2.0 L (CONNECTED AT A3A5J1)	80009	174-2334-00
A3W425	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3W426	155-0316-02			IC,ASIC:BIPOLAR,12 BIT D/A CONVERTER,FULL CUSTOM,M460,TEQ1D68,BOX	TK2598	155-0316-02
A3W427	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3W428	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3W429	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3W430	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A3A1	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A1FL1	119-4037-00			FILTER:4.5B 0-30MHZ PASSBAND,40DB 41MHZ STOP BAND	TK2444	F55A3000
A3A1P1	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A1P2	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A2	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A2FL1	119-4037-00			FILTER:4.5B 0-30MHZ PASSBAND,40DB 41MHZ STOP BAND	TK2444	F55A3000
A3A2P1	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A2P2	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A3	671-1343-00			CIRCUIT BD ASSY:FILTER	80009	671-1343-00
A3A3FL1	119-4037-00			FILTER:4.5B 0-30MHZ PASSBAND,40DB 41MHZ STOP BAND	TK2444	F55A3000
A3A3P1	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A3P2	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0.0	27264	22-17-3022
A3A4	119-3402-04			OVEN ASSEMBLY:14.8500MHZ	80009	119-3402-04
A3A4C6	283-5238-00			CAP,FXD,CER:MLC,150PF,5%,100V,NPO,1206,SMD,8MM	04222	12061A151JAT1A
A3A4C8	283-5025-00			CAP,FXD,CERAMIC:MLC,220PF,5%,50V,NPO,1206,SMD,8MM	04222	12065A221JAT1A

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3A4C15	283-5007-00			CAP,FXD,CER:MLC,8PF,+/-0.5PF,50V,NPO,1206,SMD,8MM	04222	12065A8R0DAT1A
A3A4C16	283-5206-00			CAP,FXD,CER DI:56PF,5%,100V (0805 SMD)T&R	04222	0805A560JAT050R
A3A4C17	283-5004-00			CAP,FXD,CER:MLC,0.1UF,10%,25V,X7R,1206,SMD,8MM T&R	04222	12063C104KAT3A
A3A4Q10	151-5035-00			TRANSISTOR,SIG:BIPOLAR,NPN,25V,30MA,650MHZ,AMPLIFIER,MMBTH10L,TO-236/SOT-23,8MM T&R	04713	MMBTH10LT1
A3A4R1	321-5043-00			RES,FXD:THICK FILM,47.5 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCD47R5FT
A3A4R3	307-1161-00			RES,FXD,FILM:1M OHM,5%,0.062W,0805,8MM T&R	50139	ACD1004JT
A3A4R4	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A3A4R5	321-5078-00			RES,FXD,FILM:20K OHM,1%,0.1W,0805,T&R	91637	CRCW 0805 2002F-RT1
A3A4R9	321-5012-00			RES,FXD:THICK FILM,332 OHM,1%,0.125W,TC=100 PPM,1206,T&R	50139	BCK3320FT
A3A4Y1	-----			XTAL UNIT,QTZ:14.85000 MHZ, 5 PPM,PARALLEL,CL=32PF,RS 10 OHM,PKG HC-43/U,FORMED CRYSTAL LEADS (REPLACEABLE AT A3A4 ONLY)		
A3A5	671-1939-01			CIRCUIT BD ASSY:OSCILLATOR FILTER	80009	671-1939-01
A3A5C1	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C2	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C3	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C4	283-0767-00			CAP,FXD,MICA DI:107 PF,1%,500V	09023	CD15FD(107)F03
A3A5C5	283-0680-00			CAP,FXD,MICA DI:330PF,1%,500V	09023	CD15FD331F03
A3A5C6	283-0600-00			CAP,FXD,MICA DI:43PF,5%,500V	09023	CD10ED430J03
A3A5C7	283-0140-00			CAP,FXD,CER DI:4.7PF,+/-0.25PF,50V	51642	A100-050-NPO-479 C
A3A5C8	283-0853-00			CAP,FXD,CER DI:2.2PF,200V MI	04222	SR592A2R2DAAAP1
A3A5C9	283-0223-00			CAP,FXD,CER DI:3PF,+/-5PF,50V DISC	59660	835 593 COJO 309D
A3A5C10	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C11	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C12	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C13	283-0636-00			CAP,FXD,MICA DI:36PF,2%,500V,0.370 X 0.460,RADIAL	09023	CDA15ED360G03
A3A5C14	283-0636-00			CAP,FXD,MICA DI:36PF,2%,500V,0.370 X 0.460,RADIAL	09023	CDA15ED360G03
A3A5C15	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C16	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C17	283-0639-00			CAP,FXD,MICA DI:56PF,1%,500V	09023	CD15ED560F03
A3A5C18	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C19	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C20	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5C21	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A5J1	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 2)	22526	48283-018
A3A5J3	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 2)	22526	48283-018
A3A5J4	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 2)	22526	48283-018
A3A5J5	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 2)	22526	48283-018
A3A5J6	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,WFERRULE (QUANTITY 2)	22526	48283-018

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3A5J7	131-5224-00			CONN,BOX:PCB,FEMALE,STR,1 X 5,0.1 CTR,0.14 TAIL,BOTTOM ENTRY,W/2 X 5 PCB,0.042 PTH X 0.0 (QUANTITY 5)	27264	22-17-2052
A3A5J8	131-5224-00			CONN,BOX:PCB,FEMALE,STR,1 X 5,0.1 CTR,0.14 TAIL,BOTTOM ENTRY,W/2 X 5 PCB,0.042 PTH X 0.0 (QUANTITY 5)	27264	22-17-2052
A3A5L1	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	0JR03	108-0212-00
A3A5L2	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	0JR03	108-0212-00
A3A5L3	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	0JR03	114-0476-00
A3A5L4	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	0JR03	114-0476-00
A3A5L5	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	0JR03	114-0476-00
A3A5L6	114-0476-00			INDUCTOR,VAR:SHIELDED,89-98UH,Q>100@94NH,VERT MOUNT	0JR03	114-0476-00
A3A5L7	108-0212-00			INDUCTOR,FXD:CUSTOM,SIGNAL,495NH ON FORM 315-0331-01,AXIAL	0JR03	108-0212-00
A3A5P6	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-O
A3A5Q1	151-0427-00			TRANSISTOR,SIG:BIPOLAR,NPN,15V,50MA,900 MHZ,AMPLIFIER,2N5770,TO-92 EBC	07263	2N5770
A3A5R1	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A3A5R2	322-3068-00			RES,FXD:METAL FILM,49.9 OHM,1%,0.2W,TC=100 PPM,MI,SMALL BODY	57668	CRB20T68EFX49R9
A3A5R3	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3A5R4	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A3A5R6	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A3A5R7	322-3143-00			RES,FXD,FILM:301 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 301E
A2A3R8	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3A5R9	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A3A5R10	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX4990
A3A5R11	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX4990
A3A5R12	322-3066-00			RES,FXD,FILM:47.5 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	09969	CCF50-47R5F-R36
A3A5R13	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A3A5R14	322-3070-00			RES,FXD,FILM:52.3 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 52E3
A3A5TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3A5TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A3A5U1	156-3047-00			IC,LINEAR:BIPOLAR,AMPLIFIER,RF AMP,20DB GAIN,600MHZ,NE5205AN,DIP08.3	1CH66	NE5205AN
A3A5U2	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A3A6	671-2277-00			CIRCUIT BD ASSY:ANALOG DELAY	80009	671-2277-00
A3A6C1	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A3A6C2	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A6DL1	119-4277-00			DELAY LINE ASSY:20.0 L,25NS	80009	119-4277-00
A3A6J1	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 16)	22526	48283-018
A3A6R1	322-3119-00			RES,FXD,FILM:169 OHM,1%,0.2W,TC=TO	80009	322-3119-00
A3A6R2	322-3119-00			RES,FXD,FILM:169 OHM,1%,0.2W,TC=TO	80009	322-3119-00
A3A6R3	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=TO	80009	322-3135-00
A3A6R4	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=TO	80009	322-3135-00
A3A6U1	156-1640-00			IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE:IOH116, DIP16.3,TUBE	80009	156-1640-00
A3A7	671-2278-00			CIRCUIT BD ASSY:DIGITAL DELAY	80009	671-2278-00
A3A7C4	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A7C5	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A3A7DL1	119-4276-00			DELAY LINE ASSY:24.0 L,30NS	80009	119-4276-DO
A3A7J4	131-0608-00			TERMINAL,PLH:0.365 L X 0.025 BRZ GLD PL (QUANTITY 16)	80009	131-0608-00
A3A7R5	322-3119-00			RES,FXD,FILM:169 OHM,1%,0.2W,TC=TO	80009	322-3119-00
A3A7R6	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=TO	80009	322-3135-00
A3A7R7	322-3119-00			RES,FXD,FILM:169 OHM,1%,0.2W,TC=TO	80009	322-3119-00
A3A7R8	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=TO	80009	322-3135-00
A3A7U2	156-1640-00			IC,DIGITAL:ECL,RECEIVER;TRIPLE LINE:IOH116, DIP16.3,TUBE	80009	156-1640-00
A4	671-0912-04			CIRCUIT BD ASSY:POWER SUPPLY	80009	671-0912-04
				*ATTACHED PARTS*		
	211-0534-00			SCR,ASSEM WSHR:6-32 X 0.312,PNH,STL,CD PL,POZ EXT LK WSHR (QUANTITY 9)	TK0435	ORDER BY DESCR
	214-4304-00			HEAT SINK,XSTR:CUSTOM ALUM,FOR T0-220 (QUANTITY 3: Q224/Q234,Q427/Q432,U350/U356)	5Y400	214-4304-00
	214-4305-00			HEAT SINK,XSTR:CUSTOM ALUM,FOR T0-220 (QUANTITY 1 AT CR834/CR844/CR934/CR944)	5Y400	214-4305-00
				*END ATTACHED PARTS*		
A4C111	290-0782-00			CAP,FXD,ALUM:4.7UF,20%,35V,ESR=42.33 OHM (120HZ,20C),RADIAL	55680	UVX1V4R7MDA
A4C115	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C116	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C119	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A4C125	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A4C136	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C144	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C147	283-0339-00			CAP,FXD,CER:MLC,0.22UF,10%,50V,X7R,0.30 X 0.30,0.20 LS,RADIAL	04222	SR305C224KAA
A4C153	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C158	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A4C160	283-0051-00			CAP,FXD,CER DI:0.0033UF,5%,100V SQUARE	04222	SR211A332JAA
A4C170	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A4C212	283-0103-00			CAP,FXD,CER DI:180PF,5%,500V DISC	24165	40C638
A4C215	283-0051-00			CAP,FXD,CER DI:0.0033UF,5%,100V SQUARE	04222	SR211A332JAA
A4C217	283-0103-00			CAP,FXD,CER DI:180PF,5%,500V DISC	24165	40C638
A4C220	290-0942-00			CAP,FXD,ELCTLT:100UF,+100-10%,25V,ALUMINUM	62643	CEUFM1E101
A4C222	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A4C231	290-0778-00			CAP,FXD,ALUM:1UF,20%,50V,5 X 11 MM,NONPOLAR,RADIAL	62643	CEBPM1H010M(Q)

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4C349	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C350	283-0024-00			CAP,FXD,CER:MLC,0.1UF,20%,50V,X7R,0.200 X 0.200,RADIAL	04222	SR215C104MAA
A4C352	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A4C355	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C357	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A4C414	290-0778-00			CAP,FXD,ALUM:1UF,20%,50V,5 X 11 MM,NONPOLAR,RADIAL	62643	CEBPM1H010M(Q)
A4C429	285-1329-00			CAP,FXD,PLASTIC:METALIZED FILM,680PF,10%,1600V POLYPROPYLENE,,70X.43, RADIAL,T/A	TK1913	FKP1 680/1600/10
A4C452	290-0942-00			CAP,FXD,ELCTL:100UF,+100-10%,25V,ALUMINUM	62643	CEUFM1E101
A4C454	290-0942-00			CAP,FXD,ELCTL:100UF,+100-10%,25V,ALUMINUM	62643	CEUFM1E101
A4C455	290-0942-00			CAP,FXD,ELCTL:100UF,+100-10%,25V,ALUMINUM	62643	CEUFM1E101
A4C458	290-0942-00			CAP,FXD,ELCTL:100UF,+100-10%,25V,ALUMINUM	62643	CEUFM1E101
A4C506	283-0211-00			CAP,FXD,CER DI:0.1UF,10%,200V SQUARE	04222	SR302C104KAA
A4C512	290-1215-00			CAP,FXD,ELCTL:680UF,20%,200V SNAP IN MT	62643	CEAUF2D681M40
A4C522	285-1421-00			CAP,FXD,PLASTIC:1.0UF,10%,400V	TK1913	MKS4 1.0/400/10
A4C541	283-0078-00			CAP,FXD,CER DI:0.001UF,20%,500V DISC	59660	0801 547 X5F0 102M
A4C564	290-0773-00			CAP,FXD,ALUM:1000UF,+50-20%,10V,1.00X0.414,AXIAL,BLK	2N936	516D108M010NP6A
A4C594	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C623	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 265 MB 510
A4C624	285-1196-00			CAP,FXD,PPR DI:0.01UF,20%,250V	TK0515	PME 265 MB 510
A4C711	290-1215-00			CAP,FXD,ELCTL:680UF,20%,200V SNAP IN MT	62643	CEAUF2D681M40
A4C758	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C782	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C793	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C846	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C848	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C851	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C853	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C856	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C858	290-0800-00			CAP,FXD,ELCTL:250UF,+100-10%,20V AL	62643	RXC25B251W12X24 C7
A4C866	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C881	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A4C923	285-1252-00			CAP,FXD,PLASTIC:0.15UF,10%,250VAC	D5243	F1772-415-2000
A4C926	285-1252-00			CAP,FXD,PLASTIC:0.15UF,10%,250VAC	D5243	F1772-415-2000
A4CR122	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR123	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR227	152-0581-00			DIODE,RECT:SCHTKY,20V,1A,.450VF,25A IFSM,1N5817	04713	1N5817
A4CR233	152-0581-00			DIODE,RECT:SCHTKY,20V,1A,.450VF,25A IFSM,1N5817	04713	1N5817
A4CR337	152-0839-00			DIODE,RECT:FAST RCVRY,600V,8A,50NS,MUR860,TO-220	04713	MUR850
A4CR345	152-0601-00			DIODE,RECT:ULTRA FAST,150V,25NS,35A IFSM,MUR120	04713	MUR115
A4CR362	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US,GP10G/1N5060	0LUA3	1N5060
A4CR363	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US,GP10G/1N5060	0LUA3	1N5060
A4CR366	152-0198-00			DIODE,RECT:200V,3A,125A IFSM,1VF AT 3A,1N5624	14936	1N5624
A4CR367	152-0198-00			DIODE,RECT:200V,3A,125A IFSM,1VF AT 3A,1N5624	14936	1N5624
A4CR427	152-0581-00			DIODE,RECT:SCHTKY,20V,1A,.450VF,25A IFSM,1N5817	04713	1N5817
A4CR432	152-0581-00			DIODE,RECT:SCHTKY,20V,1A,.450VF,25A IFSM,1N5817	04713	1N5817
A4CR464	152-0198-00			DIODE,RECT:200V,3A,125A IFSM,1VF AT 3A,1N5624	14936	1N5624

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4CR532	152-0897-00			DIODE,RECT:FAST RCVRY,1000V,1.5A,300NS,SOFT RCVRY,BYV96E,T&R	0LUA3	BYV96E
A4CR533	152-0897-00			DIODE,RECT:FAST RCVRY,1000V,1.5A,300NS,SOFT RCVRY,BYV96E,T&R	0LUA3	BYV96E
A4CR651	152-0601-00			DIODE,RECT:ULTRA FAST,150V,25NS,35A IFSM,MUR120	04713	MUR115
A4CR653	152-0601-00			DIODE,RECT:ULTRA FAST,150V,25NS,35A IFSM,MUR120	04713	MUR115
A4CR655	152-0601-00			DIODE,RECT:ULTRA FAST,150V,25NS,35A IFSM,MUR120	04713	MUR115
A4CR657	152-0601-00			DIODE,RECT:ULTRA FAST,150V,25NS,35A IFSM,MUR120	04713	MUR115
A4CR658	152-0582-00			DIODE,RECT:SCHTKY,20V,3A, .475VF,80A IFSM,1N5820	04713	1N5820
A4CR691	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR692	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR693	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR694	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR755	152-0582-00			DIODE,RECT:SCHTKY,20V,3A, .475VF,80A IFSM,1N5820	04713	1N5820
A4CR794	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR795	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR821	152-1165-00			DIODE,RECT:ULTRA FAST,600V,4A,50NS,MUR460,T&R	04713	MUR460RL
A4CR823	152-1165-00			DIODE,RECT:ULTRA FAST,600V,4A,50NS,MUR460,T&R	04713	MUR460RL
A4CR825	152-1165-00			DIODE,RECT:ULTRA FAST,600V,4A,50NS,MUR460,T&R	04713	MUR460RL
A4CR828	152-1165-00			DIODE,RECT:ULTRA FAST,600V,4A,50NS,MUR460,T&R	04713	MUR460RL
A4CR834	152-0884-00			DIODE,RECT:SCHOTTKY,35V,16A,150A IFSM,630MV AT 16A,MBR1635,TO-220AC W/2 PINS	04713	MBR1635
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2"ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4CR844	152-0884-00			DIODE,RECT:SCHOTTKY,35V,16A,150A IFSM,630MV AT 16A,MBR1635,TO-220AC W/2 PINS	04713	MBR1635
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2"ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4CR890	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A4CR934	152-0661-00			DIODE,RECT:FAST RCVRY,600V,3A,200NS,T&R	04713	MR856
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2"ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4CR944	152-0884-00			DIODE,RECT:SCHOTTKY,35V,16A,150A IFSM,630MV AT 16A,MBR1635,TO-220AC W/2 PINS	04713	MBR1635
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2"ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4DS509	150-0035-00			LAMP,GLOW:NEON,90V,0.3MA,AID-T,WIRE LD,NE-2B TYPE	OJ9R2	NE-2B(13)R-T
A4E921	119-0181-00			ARSR,ELEC SURGE:230V, +/-15%, GAS DISCHARGE	0C8T6	BBS-230V +/-15% TAPE/REEL



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4E924	119-0181-00			ARSR,ELEC SURGE:230V, +/-15%, GAS DISCHARGE	0C8T6	BBS-230V +/-15% TAPE/REEL
A4F530	159-0021-00			FUSE,CARTRIDGE:3AG,2A,250V,FAST BLOW	71400	AGC-2
	344-0329-00			*MOUNTING PARTS* CLIP,ELECTRICAL:PCB,FEMALE,STR,ACCOM 5 X 20MM FUSE,5.9MM H X 3.2MM TAIL,5MM PTH SP,1.3MM DIA PT (QUANTITY 2)	61857	H-0011-2
				*END MOUNTING PARTS*		
A4F805	159-0173-00			FUSE,CARTRIDGE:3AG,4A,250V,5 SEC (FOR 90-132VAC OPERATION)	75915	312 004
A4F805	159-0023-00			FUSE,CARTRIDGE:3AG,2A,250V,SLOW BLOW (FOR 180-250VAC OPERATION)	71400	MDX2
	200-2264-00			*MOUNTING PARTS*		
	204-0906-00			CAP,FUSEHOLDER:3AG FUSES	61935	FEK 031 1666
				BODY,FUSEHOLDER:3AG & 5 X 20MM FUSES CKT BD MT	61935	TYPE FAU 031.3577
				*END MOUNTING PARTS*		
A4FL605	119-3035-00			POWER SUPPLY:ELECTROLUMINESCENT PANEL,5V DC INPUT,100VAC @ 400HZOUTPUT	80009	119-3035-00
A4J155	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4J180	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A4J292	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A4J340	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4J439	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A4J965	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A4J985	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A4L552	108-1262-00			INDUCTOR,FXD:POWER,100UH,10%,I<0.75A,RDC<0.23 OHM,Q>15,SRF>5.4MHZ,BOBBIN CORE,TSL0807-101K,RA	TK2058	TSL0807-101KR75
A4L555	108-1262-00			INDUCTOR,FXD:POWER,100UH,10%,I<0.75A,RDC<0.23 OHM,Q>15,SRF>5.4MHZ,BOBBIN CORE,TSL0807-101K,RA	TK2058	TSL0807-101KR75
A4L662	108-1209-00			INDUCTOR,FXD:CUSTOM,POWER,80UH,IDC<3 A,RDC<0.03 OHM,TOROID CORE,30T W/19 AWG	0JR03	108-1209-00
A4L747	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN,1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ,VERT MOUNT	TK1441	85-1086-1
A4L756	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN,1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ,VERT MOUNT	TK1441	85-1086-1
A4L825	108-1209-00			INDUCTOR,FXD:CUSTOM,POWER,80UH,IDC<3 A,RDC<0.03 OHM,TOROID CORE,30T W/19 AWG	0JR03	108-1209-00
A4L947	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN,1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ,VERT MOUNT	TK1441	85-1086-1
A4L955	108-1289-00			INDUCTOR,FXD:POWER,BOBBIN,1UH,IDC=30 A,RW=0.0012 OHM,FREQ=100KHZ,VERT MOUNT	TK1441	85-1086-1
A4P340	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A4P439	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A4Q214	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLI FIER,2N3904,TO-92 EBC	04713	2N3904

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4Q215	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A4Q222	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A4Q229	151-1282-00			XSTR,PWR:MOS,N-CH,500V,9.0A,0.4 OHM,MTG9N50E /IRFP450FI/STH15NA50FI,TO-218 FULLY ISOLATED	04713	MTG9N50E
	211-0097-00			*MOUNTING PARTS*		
	342-0927-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO-3P/TO-247,THM GRAFOIL G4	93907 13103	ORDER BY DESCR G4
				*END MOUNTING PARTS*		
A4Q234	151-1282-00			XSTR,PWR:MOS,N-CH,500V,9.0A,0.4 OHM,MTG9N50E /IRFP450FI/STH15NA50FI,TO-218 FULLY ISOLATED	04713	MTG9N50E
	211-0097-00			*MOUNTING PARTS*		
	342-0927-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO-3P/TO-247,THM GRAFOIL G4	93907 13103	ORDER BY DESCR G4
				*END MOUNTING PARTS*		
A4Q316	151-0323-00			TRANSISTOR,PWR:BIPOLAR,NPN,80V,4.0A,2.0MHZ,AMPLIFIER,2N5192,TO-126	04713	2N5192
A4Q317	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A4Q415	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A4Q417	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A4Q427	151-1282-00			XSTR,PWR:MOS,N-CH,500V,9.0A,0.4 OHM,MTG9N50E /IRFP450FI/STH15NA50FI,TO-218 FULLY ISOLATED	04713	MTG9N50E
	211-0097-00			*MOUNTING PARTS*		
	342-0927-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO-3P/TO-247,THM GRAFOIL G4	93907 13103	ORDER BY DESCR G4
				*END MOUNTING PARTS*		
A4Q432	151-1282-00			XSTR,PWR:MOS,N-CH,500V,9.0A,0.4 OHM,MTG9N50E /IRFP450FI/STH15NA50FI,TO-218 FULLY ISOLATED	04713	MTG9N50E
	211-0097-00			*MOUNTING PARTS*		
	342-0927-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ PAD,CNDCT,XSTR:GRAPHITE FOIL,TO-218/TO-3P/TO-247,THM GRAFOIL G4	93907 13103	ORDER BY DESCR G4
				*END MOUNTING PARTS*		
A4R112	315-0123-00			RES,FXD,FILM:12K OHM,5%,0.25W MI	50139	CB1235
A4R113	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A4R114	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A4R120	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R121	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W MI	50139	CB2725
A4R124	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R125	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R126	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W MI	50139	CB2725
A4R127	315-0471-00			RES,FXD,FILM:470 OHM,5%,0.25W MI	50139	CB4715
A4R128	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R129	315-0243-00			RES,FXD,FILM:24K OHM,5%,0.25W MI	50139	CB2435
A4R136	315-0272-00			RES,FXD,FILM:2.7K OHM,5%,0.25W MI	50139	CB2725
A4R138	315-0432-00			RES,FXD,FILM:4.3K OHM,5%,0.25W MI	50139	CB4325
A4R143	322-3486-00			RES,FXD,FILM:180 OHM,1%,0.2W,TC=TO	57668	RB20 FXE 182E
A4R144	322-3486-00			RES,FXD,FILM:180 OHM,1%,0.2W,TC=TO	57668	RB20 FXE 182E

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4R145	322-3162-00			RES,FXD:METAL FILM,475 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX4750
A4R151	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A4R152	322-3222-00			RES,FXD:METAL FILM,2K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX2001
A4R153	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-7500F-R36
A4R155	311-1225-00			RES,VAR,NONWW:TRMR,1K OHM,0.5W CERMET	02111	63M-102T602
A4R156	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K50
A4R158	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R160	322-3139-00			RES,FXD,FILM:274 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX2740
A4R164	308-0546-00			RES,FXD,WW:125 OHM,0.1%,3W,TC=20PPM	54294	LA461D-125OHM +-0.1PERCENT
A4R172	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R173	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R210	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A4R211	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R212	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R213	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R215	315-0622-00			RES,FXD,FILM:6.2K OHM,5%,0.25W MI	50139	CB6225
A4R216	315-0562-00			RES,FXD,FILM:5.6K OHM,5%,0.25W MI	50139	CB5625
A4R219	315-0473-00			RES,FXD,FILM:47K OHM,5%,0.25W MI	50139	CB4735
A4R227	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4R233	315-0270-00			RES,FXD,FILM:27 OHM,5%,0.25W MI	50139	CB2705
A4R237	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R310	315-0242-00			RES,FXD,FILM:2.4K OHM,5%,0.25W MI	50139	CB2425
A4R311	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A4R312	315-0623-00			RES,FXD,FILM:62K OHM,5%,0.25W MI	50139	CB6235
A4R313	315-0683-00			RES,FXD,FILM:68K OHM,5%,0.25W MI	50139	CB6835
A4R314	315-0332-00			RES,FXD,FILM:3.3K OHM,5%,0.25W MI	50139	CB3325
A4R315	315-0103-00			RES,FXD,FILM:10K OHM,5%,0.25W MI	50139	CB1035
A4R316	315-0751-00			RES,FXD,FILM:750 OHM,5%,0.25W MI	50139	CB7515
A4R362	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4R363	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A4R410	315-0823-00			RES,FXD,FILM:82K OHM,5%,0.25W MI	50139	CB8235
A4R411	315-0472-00			RES,FXD,FILM:4.7K OHM,5%,0.25W MI	50139	CB4725
A4R412	303-0204-00			RES,FXD,CMPSN:200K OHM,5%,1W	50139	GB2045
A4R413	321-0466-00			RES,FXD,FILM:698K OHM,1%,0.125W,TC=T0 MI	07716	CEAD69802F
A4R414	315-0105-00			RES,FXD,FILM:1M OHM,5%,0.25W MI	50139	CB1055
A4R418	315-0104-00			RES,FXD,FILM:100K OHM,5%,0.25W MI	50139	CB1045
A4R421	308-0755-00			RES,FXD,WW:0.75 OHM,5%,2W	75042	SPH-R7500J
A4R427	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R432	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4R509	315-0106-00			RES,FXD,FILM:10M OHM,5%,0.25W MI	50139	CB1065
A4R529	303-0154-00			RES,FXD,CMPSN:150K OHM,5%,1W	24546	FP1 150 K OHM 5 PERCENT
A4R540	308-0231-00			RES,FXD,WW:220 OHM,5%,3W AXIAL LEADS	05347	MS3 220 OHM 5 PERCENT
A4R562	308-0757-00			RES,FXD,WW:0.025 OHM,3%,5W	00213	ADVISE
A4R664	315-0330-00			RES,FXD,FILM:33 OHM,5%,0.25W MI	50139	CB3305
A4R680	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 2K49
A4R682	322-3268-00			RES,FXD,FILM:6.04K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 6K04
A4R691	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 2K49

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4R692	322-3246-00			RES,FXD,FILM:3.57K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 3K57
A4R705	315-0106-00			RES,FXD,FILM:10M OHM,5%,0.25W MI	50139	CB1065
A4R721	301-0274-00			RES,FXD,FILM:270K OHM,5%,0.5W MI	19701	5053CX270K0J
A4R724	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W MI	50139	CB1825
A4R726	315-0182-00			RES,FXD,FILM:1.8K OHM,5%,0.25W MI	50139	CB1825
A4R758	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4R767	308-0953-00			RES,FXD,WW:0.005 OHM,1%,5W	91637	LVR-5 .005 1%-BULK
A4R780	322-3145-00			RES,FXD,FILM:316 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 316E
A4R781	322-3145-00			RES,FXD,FILM:316 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 316E
A4R782	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R783	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R784	322-3175-00			RES,FXD,FILM:649 OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20 FXE 649E
A4R790	322-3175-00			RES,FXD,FILM:649 OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20 FXE 649E
A4R792	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R793	322-3163-00			RES,FXD,FILM:487 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-4870F-R36
A4R794	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R866	315-0221-00			RES,FXD,FILM:220 OHM,5%,0.25W,MI	50139	CB2215
A4R867	308-0953-00			RES,FXD,WW:0.005 OHM,1%,5W	91637	LVR-5 .005 1%-BULK
A4R880	322-3158-00			RES,FXD,FILM:432 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX4320
A4R881	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R882	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A4R890	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	56845	CCF50-4751F-R36
A4R922	315-0100-00			RES,FXD,FILM:10 OHM,5%,0.25W MI	50139	CB1005
A4RT924	307-0746-00			RES,THERMAL:5 OHM,10%,7A/DEG C	15454	SG200-S STRAIGHT LEAD
A4RT925	307-0746-00			RES,THERMAL:5 OHM,10%,7A/DEG C	15454	SG200-S STRAIGHT LEAD
A4S423	260-0907-03			SWITCH ASSY:THERMOSTATIC,WIRED,22 AWG UL RECOGNIZED	TK2292	430
	211-0097-00			*MOUNTING PARTS* SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ (QUANTITY 2) *END MOUNTING PARTS*	93907	ORDER BY DESCR
A4S825	260-1980-01			SWITCH,SLIDE:DPDT,10A,125V,MKD 115V/230V	82389	EPS2-PC1
A4S905	260-2443-00			SWITCH,PWR:DPDT,PUSH PUSH ALT ACT,PC PINS,6A 250VAC/1A 100VDC,36A AC SURGE,RIGHT ANG MNT,WI	31918	NE18-00-EE-N-47-01A (130238)
	366-1160-00			*ATTACHED PARTS* PUSH BUTTON:CHARCOAL,0.523 X 0.253 X 0.43 *END ATTACHED PARTS*	TK2562	366-1160-00
A4T242	120-1655-00			TRANSFORMER,PWR:GATE DR,1:1,1.5MH,50KHZ	OJR03	Z-1655
A4T344	120-1561-00			TRANSFORMER,RF:POT CORE	02113	ORDER BY DESCR(F5142-A)
A4T640	120-1856-00			TRANSFORMER,PWR:SWITCHING, PRI 150 V, SEC +/- 5V 20A, 2V 2A, +/- 15V 1A, 240W, UL REG, 50 KHZ	OJR03	128-8079-EF
A4T725	120-1449-00			TRANSFORMER,RF:COMMON MODE,2.7MH,2A	02113	P104

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4TP362	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4TP363	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4TP364	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4TP365	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4TP366	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4TP775	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A4U116	156-3827-00			IC,LINER:BIPOLAR,SW-REGULATOR CONTROLLER,PWM, CURRENT MODE,PUSH-PULL TOTEM POLE OUTPUTS,UC	01295	UC3846N
	136-0729-00			SOCKET,DIP:PCB,FEMALE,STR,2 X 8,16 POS,0.1 X 0.3 CTR,0.175 H X 0.130 TAIL,BECU,TIN	98291	DIPS16PIT
				*MOUNTING PARTS*		
A4U125	156-2462-00			IC,MISC:CMOS,MISC,QUAD POWER MOSFET GATE DRIVER,D469ADJ/TC4469CPD,DIP14.3	17856	D469ADJ
	136-0728-00			SKT,PL-IN ELEK:PCB,14 POS,2 X 7,0.1 X 0.3 CTR,0.210 H X 0.140 TAIL,TIN	98291	DIPS14PIT
				*END MOUNTING PARTS*		
A4U127	156-1225-01			IC,LINER:BIPOLAR,COMPARATOR,LM393N,DIP08.3	01295	LM393P
A4U132	156-0366-02			IC,DIGITAL:CMOS,FLIP FLOP,DUAL D-TYPE,PRESET,CLEAR,4013B,DIP14.3	04713	MC14013BCP
A4U141	156-0885-00			IC, OPTOCOUPLER:7.5KV ISOL, VCEO 70V, I COLL 100MA, HFE 400, 6 PIN DIP	04713	SOC 123A
A4U143	156-0885-00			IC, OPTOCOUPLER:7.5KV ISOL, VCEO 70V, I COLL 100MA, HFE 400, 6 PIN DIP	04713	SOC 123A
A4U147	156-0853-00			IC,LINER:BIPOLAR,OP-AMP,DUAL,SINGLE SUPPLY,LM358N,DIP08.3	01295	LM358P
A4U160	156-1631-00			IC,LINER:BIPOLAR,VOLTAGE REGULATOR,SHUNT,ADJUSTABLE,100MA,TL431CLP,TO-92	01295	TL431CLP
A4U350	156-2558-00			IC,LINER:BIPOLAR,VOLTAGE REGULATOR,POSITIVE,12V,1.5A,2%,MC7812ACT,TO-220	01295	TL780-12CKC
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2*ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4U356	156-2559-00			IC,LINER:BIPOLAR,VOLTAGE REGULATOR,NEGATIVE,-12V,1.5A,2%,MC7912ACT,TO-220	04713	MC7912ACT
				*MOUNTING PARTS*		
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2*ODX0.116	13103	7721-7PPS
	211-0097-00			SCREW,MACHINE:4-40 X 0.312,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A4U589	156-1226-00			IC,LINER:BIPOLAR,COMPARATOR,DUAL,OPEN COLLECTOR,80NS,LM319N,DIP14.3	1CH66	LM319N
A4U689	156-1226-00			IC,LINER:BIPOLAR,COMPARATOR,DUAL,OPEN COLLECTOR,80NS,LM319N,DIP14.3	1CH66	LM319N
A4U789	156-1226-00			IC,LINER:BIPOLAR,COMPARATOR,DUAL,OPEN COLLECTOR,80NS,LM319N,DIP14.3	1CH66	LM319N

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A4VR310	152-0520-00			DIODE,ZENER:12V,5%,1W,1N4742A,DO-41,T&R	04713	1N4742ARL
A4VR318	152-0647-00			DIODE,ZENER:6.8V,5%,0.4W,1N957B,DO-7 OR DO-35,T&R	04713	1N957B
A4VR419	152-0304-00			DIODE,ZENER:20V,5%,0.4W,1N968B,DO-7 OR DO-35,T&R	04713	1N968BRL
A4VR684	152-0175-00			DIODE,ZENER:5.6V,5%,0.4W,1N752A,DO-7 OR DO-35,T&R	51993	1N752A
A4VR695	152-0175-00			DIODE,ZENER:5.6V,5%,0.4W,1N752A,DO-7 OR DO-35,T&R	51993	1N752A
A4VR880	152-0175-00			DIODE,ZENER:5.6V,5%,0.4W,1N752A,DO-7 OR DO-35,T&R	51993	1N752A
A5	671-0911-05			CIRCUIT BD ASSY:CONTROLLER	80009	671-0911-05
A5C1	283-0629-01			CAP,FXD,MICA DI:62PF,1%,500V,TAPE & AMMO PACK	09023	CDA10ED620F03
A5C2	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C3	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C4	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C5	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C6	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C7	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C8	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C9	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C10	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C11	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C12	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C13	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C14	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C15	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C16	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C17	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C18	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C19	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C20	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C21	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C22	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C23	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C24	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C25	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C26	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C27	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C28	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C29	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C30	281-0773-00			CAP,FXD,CER:MLC,0.01UF,10%,100V,SAFETY,0.100 X 0.170,AXIAL,MI	04222	SA101C103KAA
A5C31	285-1100-00			CAP,FXD,PLASTIC:FILM&FOIL,0.022UF,5%,200V,(POLYESTER OR POLYPROPYLENE),0.21 X 0.485,AXIAL,MI	19396	223J02PT485
A5C32	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C33	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C34	283-0615-01			CAP,FXD,MICA DI:33PF,5%,500V,TAPE & AMMO PACK	09023	CDA15ED330J03
A5C35	283-0615-01			CAP,FXD,MICA DI:33PF,5%,500V,TAPE & AMMO PACK	09023	CDA15ED330J03
A5C36	283-0788-01			CAP,FXD,MICA DI:267PF,1%,500V,TAPE & AMMO PACK	09023	CDA15FD(267)F03
A5C37	283-0788-01			CAP,FXD,MICA DI:267PF,1%,500V,TAPE & AMMO PACK	09023	CDA15FD(267)F03
A5C38	283-0788-01			CAP,FXD,MICA DI:267PF,1%,500V,TAPE & AMMO PACK	09023	CDA15FD(267)F03
A5C39	283-0788-01			CAP,FXD,MICA DI:267PF,1%,500V,TAPE & AMMO PACK	09023	CDA15FD(267)F03
A5C40	285-1100-00			CAP,FXD,PLASTIC:FILM&FOIL,0.022UF,5%,200V,(POLYESTER OR POLYPROPYLENE),0.21 X 0.485,AXIAL,MI	19396	223J02PT485
A5C41	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C42	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C43	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C44	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5C45	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C46	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C47	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C48	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C49	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C50	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C51	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C52	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C53	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C54	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C55	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C56	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C57	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C58	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C59	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C60	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C61	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C62	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C63	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C64	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C65	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C66	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C67	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C68	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C69	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C70	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C71	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C72	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C73	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C74	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C75	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C76	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C77	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C78	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C81	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C82	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C83	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C84	290-0973-01			CAP,FXD,ALUM:100UF,20%,25VDC,8X11.5MM,0.2 LS,RADIAL,T&A	62643	SME35VB101M8X11 FT
A5C85	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C86	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C87	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C88	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5C90	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A5CR1	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR2	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR3	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR4	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR5	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR6	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR7	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR8	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR9	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR10	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR11	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5CR12	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR13	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR14	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR15	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR16	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR17	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR18	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR19	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR20	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR21	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR22	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR23	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR24	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR25	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR26	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR27	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR28	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5CR29	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A5J1	131-4530-00			CONN,HDR:PCB,MALE,STR,1 X 3,0.1 CTR,0.230 MLG X 0.120 TAIL,30 GOLD,BD RETENTION	00779	104344-1
A5J2	131-4530-00			CONN,HDR:PCB,MALE,STR,1 X 3,0.1 CTR,0.230 MLG X 0.120 TAIL,30 GOLD,BD RETENTION	00779	104344-1
A5J3	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J4	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J5	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J6	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J7	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J8	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A5J9	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A5J10	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J11	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J12	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A5J13	131-3362-00			CONN,HDR:PCB,MALE,STR,2 X 13,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	2526-6002UB
A5J14	131-4530-00			CONN,HDR:PCB,MALE,STR,1 X 3,0.1 CTR,0.230 MLG X 0.120 TAIL,30 GOLD,BD RETENTION	00779	104344-1
A5J15	131-4530-00			CONN,HDR:PCB,MALE,STR,1 X 3,0.1 CTR,0.230 MLG X 0.120 TAIL,30 GOLD,BD RETENTION	00779	104344-1
A5J16	131-3362-00			CONN,HDR:PCB,MALE,STR,2 X 13,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	2526-6002UB
A5LS1	119-2101-00			XDCR,AUDIO:6V NOM,40 MA,IMP 90 OHM,OUTPUT 85 DB MIN @ 10 CM,FREQ 2K-2.5K,MACHINE INSERTABLE	63791	SMX-06
A5P1	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A5P2	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5P14	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A5P15	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A5Q1	151-0199-05			TRANSISTOR,SIG:BIPOLAR,PNP,12V,80MA,SWITCHING,MP S3640,TO-92 EBC,T&A	04713	MPS3640RLRA
A5Q2	151-0190-09			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC,T&A	04713	2N3904RLRA
A5R1	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A5R2	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K50
A5R3	322-3173-00			RES,FXD,FILM:619 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-6190F-R36
A5R4	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R5	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R6	307-0636-00			RES NTWK,FXD,FI:8,330 OHM,2%,0.125 W	11236	761-3-R330OHM
A5R8	322-3360-02			RES,FXD,FILM:54.9K OHM,0.5%,0.2W,TC=T2	57668	CRB20 DYE 54K9
A5R9	322-3360-02			RES,FXD,FILM:54.9K OHM,0.5%,0.2W,TC=T2	57668	CRB20 DYE 54K9
A5R10	307-0636-00			RES NTWK,FXD,FI:8,330 OHM,2%,0.125 W	11236	761-3-R330OHM
A5R11	307-0636-00			RES NTWK,FXD,FI:8,330 OHM,2%,0.125 W	11236	761-3-R330OHM
A5R12	307-0636-00			RES NTWK,FXD,FI:8,330 OHM,2%,0.125 W	11236	761-3-R330OHM
A5R13	307-0636-00			RES NTWK,FXD,FI:8,330 OHM,2%,0.125 W	11236	761-3-R330OHM
A5R14	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R16	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R18	322-3310-00			RES,FXD,FILM:16.5K OHM,1%,0.2W,TC=T0(150PPM),SMALL BODY,T&R	57668	CRB20 FXE 16K5
A5R20	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A5R21	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A5R22	322-3481-00			RES,FXD,FILM:1M OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1M00
A5R23	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A5R24	322-3138-00			RES,FXD,FILM:267 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 267E
A5R25	322-3138-00			RES,FXD,FILM:267 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 267E
A5R26	322-3138-00			RES,FXD,FILM:267 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 267E
A5R27	322-3138-00			RES,FXD,FILM:267 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 267E
A5R28	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R29	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A5R30	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A5R31	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A5R32	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A5R33	307-0648-00			RES NTWK,FXD,FI:8,100 OHM,2%,0.125 W	11236	761-3-R100
A5R34	307-0648-00			RES NTWK,FXD,FI:8,100 OHM,2%,0.125 W	11236	761-3-R100
A5R35	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R36	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5R37	307-0650-00			RES NTWK,FXD,FI:9,2.7K OHM,5%,0.150W,BULK	11236	750-101-R2.7K
A5S1	260-1721-00			SWITCH,ROCKER:SPST,8 POS DIP,125MA,30VDC,PROCESS SEALED	00779	5-435166-3
A5TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP5	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP6	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP7	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP8	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP9	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5TP10	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A5U1	156-0983-03			IC,PROCESSOR:NMOS,MICROPROCESSOR,8-BIT,Z80B,DI P40.6	56708	Z0840006PSC
	136-0757-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 20,40 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS40PIT
				*END MOUNTING PARTS*		
A5U2	160-9261-00			IC,DIGITAL:CMOS,PROM,1024 X 8,7C281-45,DIP24	TK0198	160926100
A5U3	156-2991-00			IC,MEMORY:CMOS,NVRAM,8K X 8,200NS,SRAM,INTEGRAL BATTERY,1225,DIP28.6	0B0A9	DS1225Y-200
	136-0755-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS28PIT
				*END MOUNTING PARTS*		
A5U4	156-0724-02			IC,DIGITAL:LSTTL,GATES,74LS05,DIP14.3	01295	SN74LS05N
A5U5	156-1026-02			IC,DIGITAL:LSTTL,DEMUX,74LS154,DIP24.6,TUBE	07263	DM74LS154N
A5U6	156-2628-00			IC,PROCESSOR:NMOS,PERIPHERAL,COUNTER TIMER,Z80-CTC,DIP28	56708	Z0843006PSC
	136-0755-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS28PIT
				*END MOUNTING PARTS*		
A5U7	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
	136-0752-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	98291	DIPS20PIT
				*END MOUNTING PARTS*		
A5U9	156-1026-02			IC,DIGITAL:LSTTL,DEMUX,74LS154,DIP24.6,TUBE	07263	DM74LS154N
A5U10	156-3050-00			IC,MISC:CMOS,PWR SUPPLY SUPERVISOR,MPU RESET GENERATOR,5V SUPPLY SENSING,MPU WATCHDOG TI	0B0A9	DS1232
A5U11	160-5900-05			IC,DIGITAL:EPROM,16C8,PRGM 27C65	TK0198	160590005
	136-0755-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS28PIT
				*END MOUNTING PARTS*		
A5U12	156-0385-02			IC,DIGITAL:LSTTL,GATES,74LS04,DIP14.3,TUBE	01295	SN74LS04N
A5U13	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U14	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5U19	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL, FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U20	156-1215-01			IC,DIGITAL:CMOS,MUX/ENCODER,74C923,DIP20.3,TUBE	07263	MM74C923N
A5U21	156-1215-01			IC,DIGITAL:CMOS,MUX/ENCODER,74C923,DIP20.3,TUBE	07263	MM74C923N
A5U22	156-2392-00			IC,DIGITAL:HCMOS,GATE,HEX INVERTER,SCHMITT TRIG,74HC14,DIP14.3,TUBE	04713	MC74HC14AN
A5U23	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U24	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U25	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U26	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U27	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U28	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL, FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U29	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL, FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U30	156-3509-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 8-BIT UP/DOWN BINARY, 3-STATE,74F1779,DIP16.3,TUBE	1CH66	N74F1779N
A5U31	160-5899-00			IC,DIGITAL:STTL,PLD,PAL,16R8,25MHZ,180MA,16R8A,DIP20.3,TUBE	TK0198	160589900
				*MOUNTING PARTS*		
	136-0752-00			SOCKET,DIP:PCB,FEMALE,STR,2 X 10,0.3 CTR,0.210 H X 0.128 TAIL,TIN,PHOS BRONZE	98291	DIPS20PIT
				*END MOUNTING PARTS*		
A5U32	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A5U33	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A5U34	160-5902-02			IC,MEMORY:2048 X 8 REGISTERED PROM,63RS1681A	TK0198	160590202
				*MOUNTING PARTS*		
	136-0925-00			SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A5U35	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U36	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U37	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U38	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U39	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U40	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U43	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U44	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE, FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U45	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A5U46	156-0388-03			IC,DIGITAL:LSTTL,FLIP FLOP,74LS74,DIP14.3,TUBE	01295	SN74LS74AN
A5U47	156-0784-02			IC,DIGITAL:LSTTL,COUNTER,74LS163,DIP16.3,TUBE	01295	SN74LS163AN

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5U48	156-0784-02			IC,DIGITAL:LSTTL,COUNTER,74LS163,DIP16.3,TUBE	01295	SN74LS163AN
A5U49	156-0784-02			IC,DIGITAL:LSTTL,COUNTER,74LS163,DIP16.3,TUBE	01295	SN74LS163AN
A5U50	160-5901-03			MICROCKT,DGTL:CMOS,EPROM,64K X 8,250NS,27C512,DIP28.6	TK0198	160590103
	136-0755-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM *END MOUNTING PARTS*	98291	DIPS28PIT
A5U51	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U52	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U53	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U54	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U55	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U56	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U57	156-2028-00			IC,DIGITAL:ASTTL,ARITHMETIC FUNCTIONS,8-BIT MAGNITUDE COMPARATOR,LATCHED P&Q,74AS866,DIP28.	01295	SN74AS866AN
A5U58	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U59	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U61	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U62	156-0530-02			IC,DIGITAL:LSTTL,MUX/ENCODER,74LS157,DIP16.3,TUBE	01295	SN74LS157N
A5U63	156-0530-02			IC,DIGITAL:LSTTL,MUX/ENCODER,74LS157,DIP16.3,TUBE	01295	SN74LS157N
A5U64	156-0530-02			IC,DIGITAL:LSTTL,MUX/ENCODER,74LS157,DIP16.3,TUBE	01295	SN74LS157N
A5U65	156-0844-02			IC,DIGITAL:LSTTL,COUNTER,74LS161,DIP16.3,TUBE	01295	SN74LS161AN
A5U66	156-0844-02			IC,DIGITAL:LSTTL,COUNTER,74LS161,DIP16.3,TUBE	01295	SN74LS161AN
A5U67	156-0479-02			IC,DIGITAL:LSTTL,GATE,74LS32,DIP14.3,TUBE	01295	SN74LS32N
A5U68	156-3253-00			IC,MEMORY:CMOS,SRAM,2K X 8,55NS,DIP24.3	65786	CY7C128A-55PC
A5U69	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A5U70	156-2612-00			IC,DIGITAL:ASTTL,FLIP FLOP,OCTAL D-TYPE,CLEAR,FLOW THRU,3-STATE,74AS574,DIP20.3	01295	SN74AS574N
A5U72	156-0480-02			IC,DIGITAL:LSTTL,GATES,74LS08,DIP14.3,TUBE	01295	SN74LS08N
A5U75	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U76	156-0402-00			IC,MISC:BIPOLAR,TIMER,LM555CN,DIP08.3	27014	LM555CN
A5U77	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U78	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U79	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U80	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U81	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U82	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U83	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A5U84	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U85	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U86	156-4278-00			IC,PROCESSER:CMOS,PROCESSOR,ASYNCHRONOUS RECEIVER/TRANSCIEVER W/FIFO,16550,DIP40	27014	PC16550DN
	136-0757-00			*MOUNTING PARTS* SOCKET,DIP:PCB,FEMALE,STR,2 X 20,40 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS40PIT
				*END MOUNTING PARTS*		
A5U88	156-0879-01			IC,MISC:TTL,INTERFACE,1488,DIP14.3,TUBE	01295	SN75188N
A5U89	156-0878-01			IC,MISC:TTL,INTERFACE,1489,DIP14.3,TUBE	01295	SN75189N
A5U91	156-1722-00			IC,DIGITAL:FTTL,GATE,HEX INVERTER,74F04,DIP14.3,TUBE	04713	MC74F04N
A5U92	156-0479-02			IC,DIGITAL:LSTTL,GATE,74LS32,DIP14.3,TUBE	01295	SN74LS32N
A5U93	160-7330-02			IC,DIGITAL:STTL,PLD,PAL,22V10,25NS,18MHZ,180MA,22V10 ,DIP24.3	TK0198	160733002
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A5U94	156-0479-02			IC,DIGITAL:LSTTL,GATE,74LS32,DIP14.3,TUBE	01295	SN74LS32N
A5U95	156-1611-00			IC,DIGITAL:FTTL,FLIP FLOP,DUAL D-TYPE,SET,CLEAR,74F74,DIP14.3,TUBE	04713	MC74F74N
A5U96	156-2232-00			IC,DIGITAL:ASTTL,FLIP FLOP,DUAL 4-BIT D-TYPE,SET,3-STATE,74AS874,DIP24.3,TUBE	01295	SN74AS874NT
A5U97	160-7331-01			IC,DIGITAL:STTL,PLD,PAL,22V10,25NS,28.5MHZ,180MA,22V 10A,DIP24.3,TUBE	TK0198	160733101
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A5U99	156-0438-00			IC,DIGITAL:LSTTL,BUFFER,OCTAL,FLOW THRU,3-STATE,74LS541,DIP20.3,TUBE	01295	SN74LS541N/J
A5U100	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A5U101	156-0388-03			IC,DIGITAL:LSTTL,FLIP FLOP,74LS74,DIP14.3,TUBE	01295	SN74LS74AN
A5U102	156-0844-02			IC,DIGITAL:LSTTL,COUNTER,74LS161,DIP16.3,TUBE	01295	SN74LS161AN
A5U103	156-1313-00			IC,DIGITAL:LSTTL,REGISTER,8-BIT PISO SHIFT,74LS166,DIP16.3,TUBE	01295	SN74LS166AN
A5Y1	119-1828-00			OSC, XTAL CLOCK:6.0 MHZ, +/- 0.01%, TTL, 4 PIN 14 PIN DIP COMPATIBLE	75378	MXO55GA-2C-6.0M
A5Y2	158-0271-00			XTAL UNIT,QTZ:3.6864MHZ, 50PPM,SERIES,ESR 120 OHMS,HC-18/U OR HC-49UPKG	5W664	NDK-037
	346-0032-00			*MOUNTING PARTS* STRAP,RETAINING:0.075 DIA X 4.0 L,MLD RBR	98159	2829-75-4
				*END MOUNTING PARTS*		
A6	671-1671-04			CIRCUIT BD ASSY:DIGITAL OUT	80009	671-1671-04
A6C218	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C219	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C220	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C223	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C224	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C225	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C226	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A6C227	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C228	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C229	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C230	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C231	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C232	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C235	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C239	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A6C240	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A6C241	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A6DL1	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A6DL2	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A6J43	131-3362-00			CONN,HDR:PCB,MALE,STR,2 X 13,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	2526-6002UB
A6J44	131-3362-00			CONN,HDR:PCB,MALE,STR,2 X 13,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	2526-6002UB
A6J45	131-3362-00			CONN,HDR:PCB,MALE,STR,2 X 13,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	2526-6002UB
A6J46	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A6J47	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A6J48	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A6J49	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A6J50	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A6R276	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A6R277	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A6R278	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A6R332	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R366	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R374	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R375	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R376	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R377	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R378	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R379	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R380	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R381	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R382	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R383	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R384	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R385	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R386	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A6R387	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R388	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R390	307-0841-00			RES NTWK,FXD,FI:(4)10 OHM,10%,0.3W,BULK	73138	ADVISE
A6R391	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R392	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R393	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R394	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R395	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R396	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A6R397	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A6R398	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A6R399	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R400	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R401	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R402	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R403	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R404	322-3154-00			RES,FXD:METAL FILM,392 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	RB20FX392E
A6R405	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R406	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R407	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R408	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R409	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R410	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R411	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R412	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R413	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A6R414	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R415	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6R416	307-1579-00			RES NTWK,FXD,FI:(5)390 OHM,+/-2%,#1 PIN COMMON,0.3W,0.590 L X 0.250 H,SINGLE IN-LINE,CONFORMAL C	91637	MSP06A-01-391G
A6U53	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U54	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U55	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U56	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U57	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U58	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U59	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U60	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U61	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U62	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U63	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U64	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U65	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U66	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U67	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A6U69	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A6U75	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A6U76	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A7	671-1672-03			CIRCUIT BD ASSY:PEDESTAL	80009	671-1672-03
A7C9	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C10	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A7C11	283-0633-00			CAP,FXD,MICA DI:77PF,1%,100V	09023	CD15ED770F03
A7C12	283-0663-00			CAP,FXD,MICA DI:16.8PF,+0.5PF,500V	09023	CD15CD(16.8)D03
A7C13	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C14	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C15	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C22	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A7C23	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C170	290-0943-00			CAP,FXD,ALUM:47UF,+50-20%,25V,6 X 11MM,RADIAL	62643	CEUSM1E470-Q
A7C171	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A7C172	283-0633-00			CAP,FXD,MICA DI:77PF,1%,100V	09023	CD15ED770F03
A7C173	283-0663-00			CAP,FXD,MICA DI:16.8PF,+0.5PF,500V	09023	CD15CD(16.8)D03
A7C174	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C175	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C176	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C183	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C184	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C193	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C194	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A7C195	283-0633-00			CAP,FXD,MICA DI:77PF,1%,100V	09023	CD15ED770F03
A7C196	283-0663-00			CAP,FXD,MICA DI:16.8PF,+0.5PF,500V	09023	CD15CD(16.8)D03
A7C197	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C198	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C199	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C206	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C207	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C208	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C209	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C210	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C211	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C213	283-0642-00			CAP,FXD,MICA DI:33PF,2%,500V,0.370 X 0.340,RADIAL	09023	CD10ED330G03
A7C214	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C215	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C216	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C217	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C218	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C219	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C220	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C221	283-0642-00			CAP,FXD,MICA DI:33PF,2%,500V,0.370 X 0.340,RADIAL	09023	CD10ED330G03
A7C222	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C223	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C224	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C225	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C226	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C227	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C228	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C229	290-0974-00			CAP,FXD,ALUM:10UF,20%,50V,ESR=16.58 OHM (120HZ,20C),RADIAL	55680	UVX1H100MDA
A7C230	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C231	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C232	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A7C233	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A7J1	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A7J2	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 20)	22526	48283-018
A7J3	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A7L10	108-0056-00			INDUCTOR,FXD:CUSTOM,SIGNAL,1.06UH,10%,IDC<1.2 A,Q>50@7.9MHZ,ON FORM307-0005-00,24T W/32 AWG,A	OJR03	108-0056-00
A7L33	108-0056-00			INDUCTOR,FXD:CUSTOM,SIGNAL,1.06UH,10%,IDC<1.2 A,Q>50@7.9MHZ,ON FORM307-0005-00,24T W/32 AWG,A	OJR03	108-0056-00
A7L43	108-0056-00			INDUCTOR,FXD:CUSTOM,SIGNAL,1.06UH,10%,IDC<1.2 A,Q>50@7.9MHZ,ON FORM307-0005-00,24T W/32 AWG,A	OJR03	108-0056-00
A7P1	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0,0	27264	22-17-3022
A7P2	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0,0	27264	22-17-3022
A7P3	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0,0	27264	22-17-3022
A7P4	131-5154-00			CONN,BOX:PCB,FEMALE,STR,1 X 2,0.1 CTR,0.140 TAIL,0.15 X 0.1 PCB,BOTTOM ENTRY,20 GOLD,0,0	27264	22-17-3022
A7R1	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	56845	CCF50-4751F-R36
A7R2	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-5111F-R36
A7R4	322-3114-00			RES,FXD,FILM:150 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20-FX-150E-AXIAL
A7R5	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX2210
A7R6	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-7500F-R36
A7R7	322-3214-00			RES,FXD,FILM:1.65K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB 20 FXE 1K65
A7R9	322-3126-01			RES,FXD,FILM:200 OHM,0.5%,0.2W,TC=TO SMALL BODY TAPED & REELED	57668	CRB 20 FXE 200 OHM
A7R10	311-1944-00			RES,VAR,NONWW:TRMR,1K OHM,10%,0.5W LIN CERMET	02111	64W102T611
A7R18	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R19	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R199	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	56845	CCF50-4751F-R36
A7R200	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-5111F-R36
A7R202	322-3114-00			RES,FXD,FILM:150 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20-FX-150E-AXIAL
A7R203	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX2210
A7R204	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-7500F-R36
A7R205	322-3214-00			RES,FXD,FILM:1.65K OHM,1%,0.2W,TC=TO MI,SMALL BODY	57668	CRB 20 FXE 1K65
A7R207	322-3126-01			RES,FXD,FILM:200 OHM,0.5%,0.2W,TC=TO SMALL BODY TAPED & REELED	57668	CRB 20 FXE 200 OHM
A7R208	311-1944-00			RES,VAR,NONWW:TRMR,1K OHM,10%,0.5W LIN CERMET	02111	64W102T611
A7R216	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R217	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R218	322-3258-00			RES,FXD:METAL FILM,4.75K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	56845	CCF50-4751F-R36
A7R219	322-3261-00			RES,FXD,FILM:5.11K OHM,1%,0.2W,TC=TO MI,SMALL BODY	91637	CCF50-5111F-R36

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A7R221	322-3114-00			RES,FXD,FILM:150 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20-FX-150E-AXIAL
A7R222	322-3130-00			RES,FXD,FILM:221 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX2210
A7R223	322-3181-00			RES,FXD,FILM:750 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-7500F-R36
A7R224	322-3214-00			RES,FXD,FILM:1.65K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB 20 FXE 1K65
A7R226	322-3126-01			RES,FXD,FILM:200 OHM,0.5%,0.2W,TC=T0 SMALL BODY TAPED & REELED	57668	CRB 20 FXE 200 OHM
A7R227	311-1944-00			RES,VAR,NONWW:TRMR,1K OHM,10%,0.5W LIN CERMET	02111	64W102T611
A7R235	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R236	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A7R237	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K24
A7R238	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K24
A7R239	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K24
A7R240	322-3231-00			RES,FXD,FILM:2.49K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 2K49
A7R241	322-3300-02			RES,FXD,FILM:13K OHM,0.5%,0.2W,TC=T2	57668	CRB20T68EFX1302
A7R242	322-3453-00			RES,FXD,FILM:511K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	91637	CCF50-5113F-R36
A7R243	322-3239-00			RES,FXD,FILM:3.01K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX3011
A7R244	322-3330-00			RES,FXD,FILM:26.7K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 26K7
A7R245	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A7R246	322-3047-00			RES,FXD,FILM:30.1 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20FXE30E1
A7R247	322-3117-00			RES,FXD,FILM:162 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB 20 FXE 162E
A7R248	322-3117-00			RES,FXD,FILM:162 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB 20 FXE 162E
A7R249	322-3047-00			RES,FXD,FILM:30.1 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20FXE30E1
A7R251	322-3117-00			RES,FXD,FILM:162 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB 20 FXE 162E
A7R252	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A7R253	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K24
A7R254	322-3202-00			RES,FXD,FILM:1.24K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K24
A7R255	322-3199-00			RES,FXD,FILM:1.15K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1K15
A7R257	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A7R258	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A7R259	311-1036-00			RES,VAR,NONWW:TRMR,200 OHM,0.5W CERMET	32997	3299W-R27-201
A7TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7TP5	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7TP6	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A7U2	156-0385-02			IC,DIGITAL:LSTTL,GATES,74LS04,DIP14.3,TUBE	01295	SN74LS04N
A7U3	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A7U4	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A7U5	156-3432-00			IC, LINEAR: BIPOLAR, OP-AMP, CURRENT FEEDBACK, 200MHZ, CLC400AJP, DIP08.3 *MOUNTING PARTS*	62839	CLC400AJP
	136-0727-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 4, 0.3 CTR, 0.175 H X 0.130 TAIL, TIN, BECU *END MOUNTING PARTS*	98291	DIPS08PIT
A7U37	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U38	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U39	156-3432-00			IC, LINEAR: BIPOLAR, OP-AMP, CURRENT FEEDBACK, 200MHZ, CLC400AJP, DIP08.3 *MOUNTING PARTS*	62839	CLC400AJP
	136-0727-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 4, 0.3 CTR, 0.175 H X 0.130 TAIL, TIN, BECU *END MOUNTING PARTS*	98291	DIPS08PIT
A7U41	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U42	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U43	156-3432-00			IC, LINEAR: BIPOLAR, OP-AMP, CURRENT FEEDBACK, 200MHZ, CLC400AJP, DIP08.3 *MOUNTING PARTS*	62839	CLC400AJP
	136-0727-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 4, 0.3 CTR, 0.175 H X 0.130 TAIL, TIN, BECU *END MOUNTING PARTS*	98291	DIPS08PIT
A7U44	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U45	156-1255-00			IC, CONVERTER: BIPOLAR, D/A, 8 BIT, 85NS, CURRENT OUT, MULTIPLYING, DAC08HP, DIP16.3	04713	DAC08HP
A7U46	156-1850-00			IC, MISC: CMOS, ANALOG SWITCH, QUAD, DG211, DIP16.3	17856	DG211CJ
A7U47	156-1699-00			IC, LINEAR: BIFET, OP-AMP, DUAL, LOW OFFSET, LOW DRIFT, LF412CN, DIP08.3	01295	TL288CP
A7U48	156-1664-00			IC, DIGITAL: ALSTTL, FLIP FLOP, OCTAL D-TYPE, FLOW THRU, 3-STATE, 74ALS574, DIP20.3, TUBE	01295	SN74ALS574BN
A7U50	156-2860-00			IC, CONVERTER: CMOS, D/A, 8 BIT, 25MHZ, CURRENT OUT, VIDEO COMPATIBLE, VDAC1842N, DIP20.3 *MOUNTING PARTS*	52467	VDAC1842N
	136-0752-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE *END MOUNTING PARTS*	98291	DIPS20PIT
A7U51	156-2860-00			IC, CONVERTER: CMOS, D/A, 8 BIT, 25MHZ, CURRENT OUT, VIDEO COMPATIBLE, VDAC1842N, DIP20.3 *MOUNTING PARTS*	52467	VDAC1842N
	136-0752-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE *END MOUNTING PARTS*	98291	DIPS20PIT
A7U52	156-2860-00			IC, CONVERTER: CMOS, D/A, 8 BIT, 25MHZ, CURRENT OUT, VIDEO COMPATIBLE, VDAC1842N, DIP20.3 *MOUNTING PARTS*	52467	VDAC1842N
	136-0752-00			SOCKET, DIP: PCB, FEMALE, STR, 2 X 10, 0.3 CTR, 0.210 H X 0.128 TAIL, TIN, PHOS BRONZE *END MOUNTING PARTS*	98291	DIPS20PIT
A7U53	160-7459-01			IC, DIGITAL: CMOS, PLD, EEPD, 22V10, 25NS, 33.3MHZ, 90MA, 2 2V10-25, DIP24.3 *MOUNTING PARTS*	TK0198	160745901

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
	136-0925-00			SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015 *END MOUNTING PARTS*	00779	2-641932-3
A7U54	156-1748-01			IC,DIGITAL:ALSTTL,TRANSCEIVER,OCTAL,HIGH DRIVE,3-STATE,74ALS245-1,DIP20.3,TUBE	01295	SN74ALS245A-1N
A7U55	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A7U56	156-1255-00			IC,CONVERTER:BIPOLAR,D/A,8 BIT,85NS,CURRENT OUT,MULTIPLYING,DAC08HP,DIP16.3	04713	DAC08HP
A7U57	156-1699-00			IC,LINEAR:BIFET,OP-AMP,DUAL,LOW OFFSET,LOW DRIFT,LF412CN,DIP08.3	01295	TL288CP
A7U58	156-0991-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR,POSITIVE,5.0V,100MA,5%,MC78L05ACP,TO-92	01295	UA78L05ACLP
A7W250	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L WWIRE LEADS	57668	TPW 02-000
A8	671-1345-02			CIRCUIT BD SUBASSY:CLOCK INPUT	80009	671-1345-02
A8C1	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C11	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C12	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C13	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C14	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C15	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C16	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C17	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C18	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C19	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C20	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C21	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C22	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C23	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C26	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C27	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C28	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C29	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C30	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C31	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C32	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C33	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C34	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C35	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C36	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C37	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C38	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C39	290-0804-00			CAP,FXD,ELCTL:10UF,+50-20%,25V ALUMINUM	62643	CEUSM1E100
A8C40	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C41	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C42	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C43	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C44	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C45	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C46	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C47	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C48	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C49	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8C50	283-0766-00			CAP,FXD,MICA DI:47 PF,1%,500V	09023	CD15ED470D03
A8C51	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C52	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C53	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C54	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C55	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A8C56	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C57	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C58	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C59	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C60	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C61	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C63	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C64	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C65	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C66	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C70	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C71	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C72	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C73	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C74	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C76	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C77	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C79	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C80	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C81	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C83	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C84	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C85	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C86	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C87	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C88	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C89	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C90	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C91	283-0594-00			CAP,FXD,MICA DI:0.001UF,1%,100V	09023	CD15FA102F03
A8C92	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C93	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C94	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C95	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8C96	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A8CR1	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US,GP10G/1N5060, T&R	0LUA3	1N5060
A8CR2	152-0066-00			DIODE,RECT:400V,1A,IFSM=30A,1.2VF,2US,GP10G/1N5060, T&R	0LUA3	1N5060
A8CR3	152-0665-00			DIODE,SIG:VVC,28V,C3 = 32PF,C3/C25 = 6.5,KV3901,DO-35	04713	SMV1344
A8CR4	152-0665-00			DIODE,SIG:VVC,28V,C3 = 32PF,C3/C25 = 6.5,KV3901,DO-35	04713	SMV1344
A8CR5	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A8CR6	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF, 5082-2810,HP "15"	21847	A2X1582
A8CR7	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A8DL1	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A8DL2	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8DL3	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A8DS1	150-1017-00			LT EMITTING DIO:GREEN,550NM,55MA MAX	50434	HLMP3910
A8J4	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A8J7	131-5453-00			CONN,RF JACK:BNC-TWIN,MALE/FEMALE,RTANG,PCB/REAR PNL,0.174 MLG X 0.130 TAIL,0.5 DIA D1/FLAT	14949	CBBJR39A
A8J8	131-5453-00			CONN,RF JACK:BNC-TWIN,MALE/FEMALE,RTANG,PCB/REAR PNL,0.174 MLG X 0.130 TAIL,0.5 DIA D1/FLAT	14949	CBBJR39A
A8J9	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 4)	22526	48283-018
A8J10	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 4)	22526	48283-018
A8J11	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A8J12	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A8J13	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A8J14	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A8J15	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A8J16	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 3)	22526	48283-018
A8L1	108-0215-00			INDUCTOR,FXD:CUSTOM,POWER,1.1UH,10%,IDC<510 MA,Q>35@7.9MHZ,ON FORM 276-0020-00,31T W/38 AWG	0JR03	108-0215-00
A8L2	108-0215-00			INDUCTOR,FXD:CUSTOM,POWER,1.1UH,10%,IDC<510 MA,Q>35@7.9MHZ,ON FORM 276-0020-00,31T W/38 AWG	0JR03	108-0215-00
A8L3	108-0858-00			INDUCTOR,FXD:CUSTOM,POWER,3.2UH,10%,IDC<5.8 A,RDC<0.013 OHM,12T W/22 AWG,AXIAL	0JR03	108-0858-00
A8L4	108-0215-00			INDUCTOR,FXD:CUSTOM,POWER,1.1UH,10%,IDC<510 MA,Q>35@7.9MHZ,ON FORM 276-0020-00,31T W/38 AWG	0JR03	108-0215-00
A8L5	108-0327-00			INDUCTOR,FXD:CUSTOM,SIGNAL,48NH,Q>78@50MHZ,ON FORM 276-0153-00,AXIAL	0JR03	108-0327-00
A8P1	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A8P2	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A8P3	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A8Q1	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A8R6	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A8R7	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A8R8	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8R9	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R10	322-3137-00			RES,FXD,FILM:261 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 261E
A8R11	322-3137-00			RES,FXD,FILM:261 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 261E
A8R12	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R13	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R14	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R15	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R16	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R17	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A8R18	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R19	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A8R20	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R21	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R22	322-3086-00			RES,FXD,FILM:76.8 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-76R8F-R36
A8R23	322-3105-00			RES,FXD,FILM:121 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 121E
A8R24	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R25	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R26	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R27	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R28	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R29	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A8R30	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A8R31	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A8R32	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A8R33	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A8R34	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R35	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R36	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R37	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R39	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-G200R0D-R 36
A8R40	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-G200R0D-R 36



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8R41	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R42	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-G200R0D-R36
A8R43	322-3126-00			RES,FXD,FILM:200 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	91637	CCF50-G200R0D-R36
A8R44	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R45	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R46	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R47	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R48	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R49	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R50	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R53	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R54	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R55	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R56	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R57	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R58	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R59	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R60	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R61	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R62	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R63	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R64	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R65	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R66	322-3481-00			RES,FXD,FILM:1M OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 1M00
A8R67	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R68	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R69	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R70	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A8R71	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8R72	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A8R73	322-3058-00			RES,FXD,FILM:39.2 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20 FXE 39E2
A8R74	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R75	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R76	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R77	322-3137-00			RES,FXD,FILM:261 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 261E
A8R78	322-3137-00			RES,FXD,FILM:261 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 261E
A8R80	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R81	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R83	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A8R84	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R85	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R88	322-3165-00			RES,FXD,FILM:511 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 511E
A8R89	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R90	322-3289-00			RES,FXD:METAL FILM,10K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1002
A8R91	322-3260-00			RES,FXD,FILM:4.99K OHM,1%,0.2W,TC=T0 TAPED & REELED,SMALL BODY	57668	CRB20T68EFX4991
A8R92	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A8R93	322-3259-00			RES,FXD,FILM:4.87K OHM,1%,0.2W,TC=T0 MI,SMALL BODY	09969	CCF50-4871F-R36
A8R94	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A8R95	322-3001-00			RES,FXD,FILM:10 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX10R0
A8R96	322-3281-00			RES,FXD:METAL FILM,8.25K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 8K25
A8R97	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R98	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A8R99	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K50
A8R100	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R101	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R102	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R103	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R104	322-3164-00			RES,FXD,FILM:499 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20T68EFX4990
A8R105	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A8R106	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A8TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP5	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP6	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP7	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP8	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP9	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP10	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP11	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP12	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8TP13	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A8U1	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A8U2	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A8U3	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A8U4	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A8U5	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A8U6	160-8053-01			IC,DIGITAL:STTL,PLD,PAL,22V10,35NS,18MHZ,180MA,22V10 ,DIP24.3	TK0198	160805301
				*MOUNTING PARTS*		
	136-0925-00			SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A8U7	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER,OCTAL,3-STATE,74ALS245,DIP20.3,TUBE	01295	SN74ALS245AN
A8U8	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A8U9	156-1748-02			IC,DIGITAL:ALSTTL,TRANSCEIVER,OCTAL,3-STATE,74ALS245,DIP20.3,TUBE	01295	SN74ALS245AN
A8U10	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A8U11	156-2115-00			IC,DIGITAL:ECL,DECODER,DUAL 1-OF-4,W/ COMMON INPUT,ACTIVE LOW,10H171,DIP16.3,TUBE	04713	MC10H171P
A8U12	156-1451-00			IC,LINEAR:BIPOLAR,VOLTAGE REGULATOR,NEGATIVE, ADJUSTABLE,1.5A,4%,LM337T,TO-220	01295	LM337KC
				*MOUNTING PARTS*		
	211-0008-00			SCREW,MACHINE:4-40 X 0.25,PNH,STL CD PL,POZ	93907	ORDER BY DESCR
	210-1178-00			WASHER,SHLDR:TRANSISTOR,TO-220,0.2"ODX0.116	13103	7721-7PPS

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
	342-0563-00			INSULATOR,PLATE:TRANSISTOR,FIBERGLASS REINFORCED SILICON RUBBER	18565	69-11-8805-1674
				*END MOUNTING PARTS*		
A8U13	156-2142-00			IC,DIGITAL:ECL,COUNTER,4-BIT BINARY,10H016,DIP16.3,TUBE	04713	MC10H016P
A8U14	156-2142-00			IC,DIGITAL:ECL,COUNTER,4-BIT BINARY,10H016,DIP16.3,TUBE	04713	MC10H016P
A8U15	156-1642-01			IC,DIGITAL:ECL,GATE,10H105,DIP16.3,TUBE	04713	MC10H105P
A8U16	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A8U17	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A8U18	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A8U19	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A8U20	156-1642-01			IC,DIGITAL:ECL,GATE,10H105,DIP16.3,TUBE	04713	MC10H105P
A8U21	156-0853-02			IC,LINEAR:BIPOLAR,OP-AMP,LM358N,DIP08.3	01295	LM358P
A8U22	156-1795-00			IC,DIGITAL:ECL,MUX,DUAL 4-TO-1,ENABLE,10H174,DIP16.3,TUBE	04713	MC10H174P
A8U23	156-2115-00			IC,DIGITAL:ECL,DECODER,DUAL 1-OF-4,W/ COMMON INPUT,ACTIVE LOW,10H171,DIP16.3,TUBE	04713	MC10H171P
A8U24	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD ECL-TO-TTL,10H125,DIP16.3,TUBE	04713	MC10H125P
A8U25	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A8U26	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A8W8	174-2190-00			CA ASSY,SP,ELEC:40,28 AWG,3.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT	80009	174-2190-00
A8W69A	174-2586-00			CA ASSY SP:RIBBON,CPR,(2)4,26 AWG,24.6 L,(2)1X4,0.1 CTR BOTH ENDS,BLK CONN 24.6 L,WHITE CO	060D9	174-2586-00
A8W69B	174-2586-00			CA ASSY SP:RIBBON,CPR,(2)4,26 AWG,24.6 L,(2)1X4,0.1 CTR BOTH ENDS,BLK CONN 24.6 L,WHITE CO	060D9	174-2586-00
A9	119-3827-00			DISPLAY,ELEC:VACUUM FLORESCENT	05464	3601-87-032
A10	671-2264-00			CIRCUIT BD ASSY:HV DRIVE	80009	671-2264-00
				*ATTACHED PARTS*		
XXXXXX	129-0236-00			SPACER,POST:0.375 L SPACING,4-40 INT (0.25 MIN DEPTH) & EXT THD,0.125 L,AL,0.187 HEX (QUANTITY 2)	TK0588	129-0236-00
XXXXXX	134-0233-00			PLUG,HOLE COV:0.734 TO COVER 0.562 HOLE,SNAP-IN PLUG FOR USE IN 0.031 TO 0.140 THICK PANEL,SMO (QUANTITY 2)	13764	62PP056BG14
				*END ATTACHED PARTS*		
A10C1	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A10C2	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A10C3	283-0780-00			CAP,FXD,MICA DI:125PF,1%,500V	09023	CD15FD(125)F03
A10C5	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A10C6	283-0780-00			CAP,FXD,MICA DI:125PF,1%,500V	09023	CD15FD(125)F03
A10C8	283-0059-00			CAP,FXD,CER DI:1UF,+80-20%,50V SQUARE	04222	SR305C105MAA
A10C9	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A10CR1	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF, 5082-2810,HP "15"	21847	A2X1582
A10CR2	152-0725-00			DIODE,SIG:SCHOTTKY,20V,0.41V VF AT 1.0MA,1.2PF, 5082-2810,HP "15"	21847	A2X1582

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A10CR3	152-0725-00			DIODE,SIG:Schottky,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A10CR4	152-0725-00			DIODE,SIG:Schottky,20V,0.41V VF AT 1.0MA,1.2PF,5082-2810,HP "15"	21847	A2X1582
A10J1	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A10J2	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 5)	22526	47359-001
A10J3	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 2)	22526	47359-001
A10J4	131-0787-00			TERMINAL,PIN:PCB/PRESSFIT,MALE,STR,0.025 SQ,0.448 MLG X 0.137 TAIL,0.600 L,PHOS BRZ,50 GOLD (QUANTITY 2)	22526	47359-001
A10L1	108-0520-00			INDUCTOR,FXD:CUSTOM,POWER,2.2UH,IMAX<330@7.9MHZ,ON FORM 315-0220-01,46T W/40 AWG,AXIAL	0JR03	108-0520-00
A10L2	108-0520-00			INDUCTOR,FXD:CUSTOM,POWER,2.2UH,IMAX<330@7.9MHZ,ON FORM 315-0220-01,46T W/40 AWG,AXIAL	0JR03	108-0520-00
A10Q1	151-0223-00			TRANSISTOR,SIG:BIPOLAR,NPN,15V,500MA,SWITCHING,MPS2369A,TO-92 EBC	04713	MPS2369A
A10Q2	151-0220-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,400MHZ,AMPLIFIER,2N3906(SEL),TO-92 EBC	01295	SKA5122
A10Q3	151-0223-00			TRANSISTOR,SIG:BIPOLAR,NPN,15V,500MA,SWITCHING,MPS2369A,TO-92 EBC	04713	MPS2369A
A10Q4	151-0220-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,400MHZ,AMPLIFIER,2N3906(SEL),TO-92 EBC	01295	SKA5122
A10R2	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A10R3	307-0057-00			RES,FXD,CMPSN:5.1 OHM,5%,0.5W MI	50139	EB51G5
A10R4	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A10R6	307-0057-00			RES,FXD,CMPSN:5.1 OHM,5%,0.5W MI	50139	EB51G5
A10R7	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K50
A10R8	322-3210-00			RES,FXD:METAL FILM,1.5K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20 FXE 1K50
A10R9	315-0511-00			RES,FXD,FILM:510 OHM,5%,0.25W MI	50139	CB5115
A10R10	315-0432-00			RES,FXD,FILM:4.3K OHM,5%,0.25W MI	50139	CB4325
A10U1	156-1704-00			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE,74F374,DIP20.3,TUBE	01295	SN74F374N
A17	671-2028-09			CIRCUIT BD ASSY:RAM LINE EXTENDER (OPTION 07 ONLY)	80009	671-2028-09
A17BT550	146-0058-00			BATTERY,STORAGE:1.2V,NICAD,500MAH,AA CELL (QUANTITY 3) *MOUNTING PARTS*	61058	P50AAH
	210-0405-00			NUT,PLAIN,HEX:2-56 X 0.188,BRS CD PL (QUANTITY 2)	73743	12157-50
	211-0001-00			SCREW,MACHINE:2-56 X 0.25,PNH,STL CD PL,POZ (QUANTITY 2)	93907	ORDER BY DESCR
	352-0961-00			HOLDER,BATTERY:AA,3 CELL,PC MOUNT *END MOUNTING PARTS*	65249	BH3AA-PC
A17C100	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C101	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C102	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C103	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C104	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA





## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17C215	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C216	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C217	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C218	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C219	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C220	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C221	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C222	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C223	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C224	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C225	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C230	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C231	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C232	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C233	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C234	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C235	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C236	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C237	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C238	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C239	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C240	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C241	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C242	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C243	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C244	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C245	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C246	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C247	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C248	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C249	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C250	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C251	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C252	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C253	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C254	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C255	290-0973-00			CAP,FXD,ALUM:100UF,20%,25VDC	55680	UVX1V101MPA
A17C260	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C261	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C262	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17C263	281-0775-01			CAP,FXD,CER:MCL,0.1UF,20%,50V,Z5U,0.170 X 0.100,AXIAL	04222	SA105E104MAA
A17CR550	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A17CR551	152-0141-02			DIODE,SIG:ULTRA FAST,40V,150MA,4NS,2PF,1N4152,DO-35	01295	1N4152R
A17CR552	152-0581-04			DIODE,RECT:SCHTKY,20V,1A,,450VF,25A IFSM,1N5817,T&R	04713	1N5817RL (TAPE & REEL PACKAGE)
A17CR553	152-0581-04			DIODE,RECT:SCHTKY,20V,1A,,450VF,25A IFSM,1N5817,T&R	04713	1N5817RL (TAPE & REEL PACKAGE)
A17DL500	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A17DL501	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A17DL510	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A17DL511	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17J1	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A17J2	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A17J3	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A17J4	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A17J500	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A17J501	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A17J510	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A17J511	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 8)	22526	48283-018
A17P500	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-O
A17P501	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-O
A17P510	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-O
A17P511	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-O
A17Q400	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A17Q401	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A17Q550	151-0188-00			TRANSISTOR,SIG:BIPOLAR,PNP,40V,200MA,250MHZ,AMPLIFIER,2N3906,TO-92 EBC	04713	2N3906
A17Q551	151-0190-00			TRANSISTOR,SIG:BIPOLAR,NPN,40V,200MA,300MHZ,AMPLIFIER,2N3904,TO-92 EBC	04713	2N3904
A17Q552	151-0405-00			TRANSISTOR,PWR:BIPOLAR,NPN,60V,4.0A,1.0MHZ,AMPLIFIER,DARLINGTON,MJE800,TO-126	04713	MJE800
	211-0244-00			*MOUNTING PARTS* SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ, MACHINE	01536	821-02775
				*END MOUNTING PARTS*		
A17R100	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R101	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R102	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R103	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R104	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R105	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R106	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R107	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17R108	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R109	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R121	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R122	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R123	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R131	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R132	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R133	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R140	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R141	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R200	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R201	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R202	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R203	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R204	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R205	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R206	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R207	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R208	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R209	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R221	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R222	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R223	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R231	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R232	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R233	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R240	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R241	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R300	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R301	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R302	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R303	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R304	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R305	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17R306	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R307	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R308	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R309	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R320	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 51E1
A17R321	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R322	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R323	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R330	322-3069-00			RES,FXD,FILM:51.1 OHM,1%,0.2W,TC=T0 MI,SMALL BODY	57668	CRB20 FXE 51E1
A17R331	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R332	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R333	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R340	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R341	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R400	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R401	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R402	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R403	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R404	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R405	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R406	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R407	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R409	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R410	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R500	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R501	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R502	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R504	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R515	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R516	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R517	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R518	315-0101-00			RES,FXD,FILM:100 OHM,5%,0.25W,MI	50139	CB1015
A17R520	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R521	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R522	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R523	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R530	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17R531	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R532	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R533	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R534	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R535	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R540	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R541	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R542	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R543	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R544	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A17R550	315-0102-00			RES,FXD,FILM:1K OHM,5%,0.25W MI	50139	CB1025
A17R551	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R552	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R553	315-0302-00			RES,FXD,FILM:3K OHM,5%,0.25W MI	50139	CB3025
A17R554	301-0121-00			RES,FXD,FILM:120 OHM,5%,0.5W MI	19701	5053CX120K0
A17R556	322-3414-00			RES,FXD:METAL FILM,200K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB 20 FXE 200 K OHM
A17R557	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A17R558	322-3385-00			RES,FXD:METAL FILM,100K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T29EFX1003
A17R559	322-3135-00			RES,FXD,FILM:249 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 249E
A17R600	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R602	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R604	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R606	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R608	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R610	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R700	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R701	315-0512-00			RES,FXD,FILM:5.1K OHM,5%,0.25W MI	50139	CB5125
A17R702	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R704	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R706	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R707	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101
A17R708	307-0499-00			RES,FXD,FILM:9,100K OHM,5%,0.125W,TC=200 PPM/DEG C,BULK	11236	750-101-R100K OR OHMOR770-101

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17TP100	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17TP101	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17TP102	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17TP103	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17TP104	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17TP105	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A17U100	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U101	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U102	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U103	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U104	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U105	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U106	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U107	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U109	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U110	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U111	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U112	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U113	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U114	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U115	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U116	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U117	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U118	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U119	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U120	156-3775-01			IC,DIGITAL:ECL,REGISTER,40-BIT MULTI-TAP VIDEO SHIFT REGISTER,250MHZ,STICH BONDED,PS042401	45912	PSO42401
				*MOUNTING PARTS*		
	136-1034-00			SKT,PL-IN ELEK:11 X 11,68 PGA,0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK,SEMIC:IC,PGA 11X11/MQUAD,1.1" X 1.1" X 0.25" H,PIN FIN,ALUMINUM,BLACK ANODIZE,658-25AB	0TNX8	658-25AB
	214-4749-00			HEAT SINK,SEMIC:IC,PGA,11X11 FRAME & SPRING,FOR PIN FIN HEAT SINKS,8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U130	156-3775-01			IC,DIGITAL:ECL,REGISTER,40-BIT MULTI-TAP VIDEO SHIFT REGISTER,250MHZ,STICH BONDED,PS042401	45912	PSO42401
				*MOUNTING PARTS*		
	136-1034-00			SKT,PL-IN ELEK:11 X 11,68 PGA,0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK,SEMIC:IC,PGA 11X11/MQUAD,1.1" X 1.1" X 0.25" H,PIN FIN,ALUMINUM,BLACK ANODIZE,658-25AB	0TNX8	658-25AB
	214-4749-00			HEAT SINK,SEMIC:IC,PGA,11X11 FRAME & SPRING,FOR PIN FIN HEAT SINKS,8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U140	156-1704-01			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE,74F374,DIP20.3,TUBE,SELECTED VENDOR	1CH66	N74F374N
A17U141	156-1704-01			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE,74F374,DIP20.3,TUBE,SELECTED VENDOR	1CH66	N74F374N
A17U200	156-3571-00			IC,MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17U201	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U202	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U203	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U204	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U205	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U206	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U207	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U209	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U210	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U211	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U212	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U213	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U214	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U215	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U216	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U217	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U218	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U219	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U220	156-3775-01			IC, DIGITAL:ECL, REGISTER, 40-BIT MULTI-TAP VIDEO SHIFT REGISTER, 250MHZ, STICH BONDED, PS042401	45912	PSO42401
				*MOUNTING PARTS*		
	136-1034-00			SKT, PL-IN ELEK:11 X 11, 68 PGA, 0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK, SEMIC:IC, PGA 11X11/MQUAD, 1.1" X 1.1" X 0.25" H, PIN FIN, ALUMINUM, BLACK ANODIZE, 658-25AB	OTNX8	658-25AB
	214-4749-00			HEAT SINK, SEMIC:IC, PGA, 11X11 FRAME & SPRING, FOR PIN FIN HEAT SINKS, 8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U230	156-3775-01			IC, DIGITAL:ECL, REGISTER, 40-BIT MULTI-TAP VIDEO SHIFT REGISTER, 250MHZ, STICH BONDED, PS042401	45912	PSO42401
				*MOUNTING PARTS*		
	136-1034-00			SKT, PL-IN ELEK:11 X 11, 68 PGA, 0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK, SEMIC:IC, PGA 11X11/MQUAD, 1.1" X 1.1" X 0.25" H, PIN FIN, ALUMINUM, BLACK ANODIZE, 658-25AB	OTNX8	658-25AB
	214-4749-00			HEAT SINK, SEMIC:IC, PGA, 11X11 FRAME & SPRING, FOR PIN FIN HEAT SINKS, 8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U240	156-1704-01			IC, DIGITAL:FTTL, FLIP FLOP, OCTAL D-TYPE, 3-STATE, 74F374, DIP20.3, TUBE, SELECTED VENDOR	1CH66	N74F374N
A17U241	156-1704-01			IC, DIGITAL:FTTL, FLIP FLOP, OCTAL D-TYPE, 3-STATE, 74F374, DIP20.3, TUBE, SELECTED VENDOR	1CH66	N74F374N
A17U300	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U301	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U302	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U303	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U304	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U305	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U306	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U307	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U309	156-3571-00			IC, MEMORY:CMOS,SRAM,32K X 8,70NS,DIP28.6	TK1146	M5M5256AP-70LL
A17U310	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U311	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U312	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U313	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U314	156-1111-02			IC, DIGITAL:LS TTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17U315	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U316	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U317	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U318	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U319	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U320	156-3775-01			IC,DIGITAL:ECL,REGISTER,40-BIT MULTI-TAP VIDEO SHIFT REGISTER,250MHZ,STICH BONDED,PS042401	45912	PSO42401
	136-1034-00			*MOUNTING PARTS* SKT,PL-IN ELEK:11 X 11,68 PGA,0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK,SEMIC:IC,PGA 11X11/MQUAD,1.1" X 1.1" X 0.25" H,PIN FIN,ALUMINUM,BLACK ANODIZE,658-25AB	0TNX8	658-25AB
	214-4749-00			HEAT SINK,SEMIC:IC,PGA,11X11 FRAME & SPRING,FOR PIN FIN HEAT SINKS,8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U330	156-3775-01			IC,DIGITAL:ECL,REGISTER,40-BIT MULTI-TAP VIDEO SHIFT REGISTER,250MHZ,STICH BONDED,PS042401	45912	PSO42401
	136-1034-00			*MOUNTING PARTS* SKT,PL-IN ELEK:11 X 11,68 PGA,0.125 TAIL	63058	PGA 68H003B1-1132R
	214-4748-00			HEAT SINK,SEMIC:IC,PGA 11X11/MQUAD,1.1" X 1.1" X 0.25" H,PIN FIN,ALUMINUM,BLACK ANODIZE,658-25AB	0TNX8	658-25AB
	214-4749-00			HEAT SINK,SEMIC:IC,PGA,11X11 FRAME & SPRING,FOR PIN FIN HEAT SINKS,8311-PF11	13103	8311-PF11
				*END MOUNTING PARTS*		
A17U340	156-1704-01			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE,74F374,DIP20.3,TUBE,SELECTED VENDOR	1CH66	N74F374N
A17U341	156-1704-01			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE,74F374,DIP20.3,TUBE,SELECTED VENDOR	1CH66	N74F374N
A17U400	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A17U401	156-0982-03			IC,DIGITAL:LSTTL,FLIP FLOP,74LS374,DIP20.3,TUBE	01295	SN74LS374N
A17U402	156-0956-02			IC,DIGITAL:LSTTL,BUFFER/DRIVER,74LS244,DIP20.3,TUBE	01295	SN74LS244N
A17U403	156-0956-02			IC,DIGITAL:LSTTL,BUFFER/DRIVER,74LS244,DIP20.3,TUBE	01295	SN74LS244N
A17U404	160-7031-01			IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160703101
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A17U405	160-7032-01			IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160703201
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A17U406	160-7033-03			IC,DIGITAL:STTL,PLD,PAL,22V10,35NS,18MHZ,180,22V10,DI P24.3,TUBE	TK0198	160703303
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A17U407	160-7034-01			IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160703401
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17U408	160-7035-01			*END MOUNTING PARTS* IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160703501
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
A17U409	156-1920-00			*END MOUNTING PARTS* IC,DIGITAL:HCTCMOS,BUFFER,OCTAL,3-STATE,74HCT244, DIP20.3,TUBE	04713	MC74HCT244AN
A17U410	156-1920-00			IC,DIGITAL:HCTCMOS,BUFFER,OCTAL,3-STATE,74HCT244, DIP20.3,TUBE	04713	MC74HCT244AN
A17U411	156-1724-00			IC,DIGITAL:FTTL,GATE,QUAD 2-INPUT OR,74F32,DIP14.3,TUBE	01295	SN74F32N
A17U412	156-1724-00			IC,DIGITAL:FTTL,GATE,QUAD 2-INPUT OR,74F32,DIP14.3,TUBE	01295	SN74F32N
A17U413	156-1704-01			IC,DIGITAL:FTTL,FLIP FLOP,OCTAL D-TYPE,3-STATE, 74F374,DIP20.3,TUBE,SELECTED VENDOR	1CH66	N74F374N
A17U414	156-1724-00			IC,DIGITAL:FTTL,GATE,QUAD 2-INPUT OR,74F32,DIP14.3,TUBE	01295	SN74F32N
A17U500	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A17U501	160-8054-01			IC,DIGITAL:PROGRAMMED,CY10E301	80009	160-8054-01
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
A17U502	156-2289-00			*END MOUNTING PARTS* IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A17U503	156-1889-00			IC,DIGITAL:ECL,COUNTER,UNIVERSAL HEXADECIMAL,10H136,DIP16.3,TUBE	04713	MC10H136P
A17U504	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD ECL-TO-TTL,10H125,DIP16.3,TUBE	04713	MC10H125P
A17U505	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A17U506	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A17U507	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A17U508	156-1639-00			IC,DIGITAL:ECL,FLIP FLOP,DUAL D-TYPE,10H131,DIP16.3,TUBE	04713	MC10H131P
A17U509	156-1889-00			IC,DIGITAL:ECL,COUNTER,UNIVERSAL HEXADECIMAL,10H136,DIP16.3,TUBE	04713	MC10H136P
A17U550	156-2489-00			IC,CONVERTER:CMOS,A/D,8-BIT,32US,SAR,DIFFERENTIAL IN,SERIAL OUT,ADC0831CCN,DIP08.3	27014	ADC0831CCN
A17U551	156-1173-00			IC,LINEAR:BIPOLAR,VOLTAGE REFERENCE,POSITIVE, 2.5V,1.0%,40PPM,SERIES,MC1403U,DIP08.3	04713	MC1403U
A17U600	156-0982-03			IC,DIGITAL:LSTTL,FLIP FLOP,74LS374,DIP20.3,TUBE	01295	SN74LS374N
A17U601	156-0982-03			IC,DIGITAL:LSTTL,FLIP FLOP,74LS374,DIP20.3,TUBE	01295	SN74LS374N
A17U602	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A17U603	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A17U604	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A17U605	156-1935-00			IC,DIGITAL:FTTL,COUNTER,SYNCH 4-BIT BINARY,74F163,DIP16.3,TUBE	01295	SN74AS163N/J
A17U606	156-1111-02			IC,DIGITAL:LSTTL,TRANSCIEVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A17U607	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U608	156-1111-02			IC, DIGITAL: LSTTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U609	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U610	156-1111-02			IC, DIGITAL: LSTTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U611	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U612	156-1724-00			IC, DIGITAL: FTTL, GATE, QUAD 2-INPUT OR, 74F32, DIP14.3, TUBE	01295	SN74F32N
A17U613	156-2436-00			IC, DIGITAL: HCTCMOS, GATE, QUAD 2-INPUT OR, 74HCT32, DIP14.3, TUBE	01295	SN74HCT32N
A17U614	156-2436-00			IC, DIGITAL: HCTCMOS, GATE, QUAD 2-INPUT OR, 74HCT32, DIP14.3, TUBE	01295	SN74HCT32N
A17U617	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U619	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U621	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U700	156-1935-00			IC, DIGITAL: FTTL, COUNTER, SYNCH 4-BIT BINARY, 74F163, DIP16.3, TUBE	01295	SN74AS163NJ
A17U701	156-1935-00			IC, DIGITAL: FTTL, COUNTER, SYNCH 4-BIT BINARY, 74F163, DIP16.3, TUBE	01295	SN74AS163NJ
A17U702	156-1935-00			IC, DIGITAL: FTTL, COUNTER, SYNCH 4-BIT BINARY, 74F163, DIP16.3, TUBE	01295	SN74AS163NJ
A17U703	156-1935-00			IC, DIGITAL: FTTL, COUNTER, SYNCH 4-BIT BINARY, 74F163, DIP16.3, TUBE	01295	SN74AS163NJ
A17U704	156-1111-02			IC, DIGITAL: LSTTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U705	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U706	156-1111-02			IC, DIGITAL: LSTTL, TRANSCEIVER, 74LS245, DIP20.3, TUBE	01295	SN74LS245N
A17U707	156-3571-00			IC, MEMORY: CMOS, SRAM, 32K X 8, 70NS, DIP28.6	TK1146	M5M5256AP-70LL
A17U903	156-1639-00			IC, DIGITAL: ECL, FLIP FLOP, DUAL D-TYPE, 10H131, DIP16.3, TUBE	04713	MC10H131P
A31	671-2609-01			CIRCUIT BD ASSY: ZONEPLATE (OPTION 21 ONLY)	80009	671-2609-01
A31C1	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C2	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C3	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C4	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C6	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C7	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C8	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C9	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C10	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C11	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C12	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C13	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C14	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C15	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C16	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C17	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C18	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C19	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C20	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C21	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C99	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C100	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C101	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA
A31C115	281-0775-01			CAP, FXD, CER: MCL, 0.1UF, 20%, 50V, Z5U, 0.170 X 0.100, AXIAL	04222	SA105E104MAA



Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A31DL3	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A31DL4	119-1380-00			DELAY LINE,ELEC:10NS W/5 TAPS,100 OHM,DCR 1 OHM,SIP07	01961	PE 20662
A31J1	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A31J2	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A31J3	131-3323-00			CONN,HDR:PCB,MALE,STR,2 X 20,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	22526	66506-025
A31J4	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A31J5	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A31J6	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A31J7	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 2)	22526	48283-018
A31J8	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A31J9	131-0608-00			CONN,TERMINAL:PRESSFIT/PCB,MALE,STR,0.025 SQ,0.248 MLG X 0.137 TAIL,50 GOLD,PHZ BRZ,W/FERRULE (QUANTITY 5)	22526	48283-018
A31J10	131-3364-00			CONN,HDR:PCB,MALE,STR,2 X 17,0.1 CTR,0.365 H X 0.112 TAIL,SHRD/4 SIDES,CTR PLZ,30 GOLD	53387	N2534-6002UB
A31P4	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A31P5	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A31P8	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A31P9	131-0993-02			CONN,BOX:SHUNT,FEMALE,STR,1 X 2,0.1 CTR,0.385 H,30 GOLD,RED,JUMPER	00779	1-850100-0
A31R1	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A31R2	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A31R3	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A31R4	322-3085-00			RES,FXD,FILM:75 OHM,1%,0.2W,TC=100 PPM,T&R,SMALL BODY	57668	CRB20T68EFX75R0
A31R5	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R6	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R7	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R8	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R9	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R10	307-0546-00			RES NTWK,FXD,FI:5,75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A31R11	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R12	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R13	322-3050-00			RES,FXD,FILM:32.4 OHM,1%,0.2W,TC=T0,MI,SMALL BODY	57668	CRB20 FXE 32E4
A31R14	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R15	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A31R16	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A31R17	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A31R18	322-3097-00			RES,FXD,FILM:100 OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1000
A31R20	307-0546-00			RES NTWK,FXD,FI:5.75OHM,5%,0.15 W,TC=200 PPM/DEG C,BULK	11236	750-61-R75 OR 770-61-R75
A31R62	322-3193-00			RES,FXD:METAL FILM,1K OHM,1%,0.2W,TC=100 PPM,AXIAL,T&R,SMALL BODY	57668	CRB20T68EFX1001
A31TP1	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A31TP2	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A31TP3	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A31TP4	214-4085-00			TERM,TEST POINT:0.070 ID,0.220 H,0.063 DIA PCB,0.015 X 0.032 BRASS,W/ RED NYLON COLLAR	26364	TP104-01-02
A31U1	156-6019-00			IC,ASIC:CMOS,CUSTOM,Z80 ZONE PLATE,ADG237,VF4711,PLCC84	66302	VY04711-1
	136-0965-00			*MOUNTING PARTS* SOCKET,PLCC:PCB,84,0.05 CTR,0.360 H X 0.125 TAIL,TIN,0.055-0.075 SHOULDER HEIGHT *END MOUNTING PARTS*	00779	821573-1
A31U2	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A31U3	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A31U4	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A31U5	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A31U6	156-2289-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD TTL-TO-ECL,10H124,DIP16.3,TUBE	04713	MC10H124P
A31U7	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A31U8	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A31U9	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A31U10	156-1712-00			IC,DIGITAL:ECL,FLIP FLOP,HEX D-TYPE,10H176,DIP16.3,TUBE	04713	MC10H176P
A31U11	156-2116-00			IC,DIGITAL:ECL,MUX,QUAD 2-TO-1,LATCH,10H173,DIP16.3,TUBE	04713	MC10H173P
A31U12	156-2116-00			IC,DIGITAL:ECL,MUX,QUAD 2-TO-1,LATCH,10H173,DIP16.3,TUBE	04713	MC10H173P
A31U13	156-2116-00			IC,DIGITAL:ECL,MUX,QUAD 2-TO-1,LATCH,10H173,DIP16.3,TUBE	04713	MC10H173P

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
A31U14	156-1611-00			IC,DIGITAL:FTTL,FLIP FLOP,DUAL D-TYPE,SET,CLEAR,74F74,DIP14.3,TUBE	04713	MC74F74N
A31U15	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A31U16	156-2290-00			IC,DIGITAL:ECL,TRANSLATOR,QUAD ECL-TO-TTL,10H125,DIP16.3,TUBE	04713	MC10H125P
A31U17	156-1889-00			IC,DIGITAL:ECL,COUNTER,UNIVERSAL HEXADECIMAL,10H136,DIP16.3,TUBE	04713	MC10H136P
A31U18	156-1640-00			IC,DIGITAL:ECL,RECEIVER,TRIPLE LINE,10H116,DIP16.3,TUBE	04713	MC10H116P
A31U19	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A31U20	156-2114-00			IC,DIGITAL:ECL,RECEIVER,QUAD LINE,10H115,DIP16.3,TUBE	04713	MC10H115P
A31U21	156-1111-02			IC,DIGITAL:LSTTL,TRANSCEIVER,74LS245,DIP20.3,TUBE	01295	SN74LS245N
A31U22	160-7169-02			IC,DIGITAL:CMOS,PLD,EEPLD,22V10,25NS,33.3MHZ,90MA,2 2V10-25,DIP24.3	TK0198	160716902
	136-0925-00			*MOUNTING PARTS* SOCKET,DIP:PCB,24 POS,2 X 12,0.1 X 0.3 CTR,0.196 H X 0.130 TAIL,BECU,TIN,ACCOM 0.008-0.015	00779	2-641932-3
				*END MOUNTING PARTS*		
A31U23	160-6224-02			IC,MEMORY:CMOS,EPROM,16K X 8	TK0198	160622402
	136-0755-00			SOCKET,DIP:PCB,FEMALE,STR,2 X 14,28 POS,0.1 X 0.6 CTR,0.175 H X 0.130 TAIL,BECU,TIN,ACCOM	98291	DIPS28PIT
				*END MOUNTING PARTS*		
A31U24	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER,OCTAL,3-STATE,74ALS244,DIP 20.3,TUBE	01295	SN74ALS244BN
A31U25	156-1754-01			IC,DIGITAL:ALSTTL,BUFFER,OCTAL,3-STATE,74ALS244,DIP 20.3,TUBE	01295	SN74ALS244BN
A31U27	156-1664-00			IC,DIGITAL:ALSTTL,FLIP FLOP,OCTAL D-TYPE,FLOW THRU,3-STATE,74ALS574,DIP20.3,TUBE	01295	SN74ALS574BN
A31W24	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W25	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W52	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W53	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W54	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W55	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W56	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W57	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W58	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W59	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W60	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000
A31W61	131-0566-00			BUS,CONDUCTOR:DUMMY RES,0.094 OD X 0.225 L W/WIRE LEADS	57668	TPW 02-000

## Replaceable Electrical Parts

Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
B100	119-3551-01			FAN TUBE AXIAL:24VDC,2.2W,3300RPM,32CFM,W/14.25 IN LEAD,W/13.0 IN SLEEVE,W/2 PIN CONNECTOR,80 X (CONNECTED AT A4J155)	2W944	8314
J3	174-2370-00			CABLE ASSY,RF:75 OHM,16.0 L,9-2,FRONT MT BNC X 0.025 SQ RCPT,0.1 CTR (H DRIVE CONNECTED AT A10J3)	TK1547	174-2370-00
J4	174-2369-00			CABLE ASSY,RF:75 OHM,16.0 L,9-1,FRONT MT BNC X 0.025 SQ RCPT,0.1 CTR (V DRIVE CONNECTED AT A10J4)	TK1547	174-2369-00
J9	174-2183-01			CA ASSY,SP,ELEC:37,28 AWG,3.0 L (REMOTE CONTROL CONNECTED AT A5J9)	TK1547	174-2183-01
	214-3903-01			*MOUNTING PARTS* SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2) *END MOUNTING PARTS*	0KB01	214-3903-01
J13	174-2452-02			CA ASSY,SP,ELEC:26,28 AWG,4.0 L,RIBBON,W/FERRITE CORE (RS232 CONNECTED AT A6J13) *MOUNTING PARTS*	TK1547	174-2452-02
	214-3903-01			SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2)	0KB01	214-3903-01
	210-0054-00			WASHER,LOCK:#4 SPLIT,0.025 THK STL CD PL (QUANTITY 2) *END MOUNTING PARTS*	86928	ORDER BY DESCR
J16	174-2295-01			CA ASSY,SP,ELEC:25,28 AWG,2.5 L (PARALLEL CONNECTED AT A5J16) *MOUNTING PARTS*	TK1547	174-2295-01
	214-3903-01			SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2) *END MOUNTING PARTS*	0KB01	214-3903-01
J23	174-1770-00			CABLE ASSY,RF:75 OHM COAX,6.5 L BNC TERMINAL CONN (CONNECTED AT A3J23)	060D9	174-1770-00
J43	174-2452-02			CA ASSY,SP,ELEC:26,28 AWG,4.0 L,RIBBON,W/FERRITE CORE (G/Y CONNECTED AT A6J43) *MOUNTING PARTS*	TK1547	174-2452-02
	214-3903-01			SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2)	0KB01	214-3903-01
	210-0054-00			WASHER,LOCK:#4 SPLIT,0.025 THK STL CD PL (QUANTITY 2) *END MOUNTING PARTS*	86928	ORDER BY DESCR
J44	174-2452-02			CA ASSY,SP,ELEC:26,28 AWG,4.0 L,RIBBON,W/FERRITE CORE (B/P CONNECTED AT A6J44) *MOUNTING PARTS*	TK1547	174-2452-02
	214-3903-01			SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2)	0KB01	214-3903-01
	210-0054-00			WASHER,LOCK:#4 SPLIT,0.025 THK STL CD PL (QUANTITY 2) *END MOUNTING PARTS*	86928	ORDER BY DESCR
J45	174-2452-02			CA ASSY,SP,ELEC:26,28 AWG,4.0 L,RIBBON,W/FERRITE CORE (R/P CONNECTED AT A6J45)	TK1547	174-2452-02

Component number	Tektronix part number	Serial / Assembly number Effective Discontinued	Name & description	Mfr. code	Mfr. part number
	214-3903-01		*MOUNTING PARTS* SCREW,JACK:4-40 X 0.312 EXT THD,4-40 INT THD,0.188 HEX,STEEL,CADPLATE (QUANTITY 2)	0KB01	214-3903-01
	210-0054-00		WASHER,LOCK:#4 SPLIT,0.025 THK STL CD PL (QUANTITY 2)	86928	ORDER BY DESCR
			*END MOUNTING PARTS*		
W1	174-2184-00		CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J1 TO A5J7)	TK1547	174-2184-00
W2	174-2184-00		CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J2 TO A5J6)	TK1547	174-2184-00
W3	174-2189-00		CA ASSY,SP,ELEC:34,28 AWG,12.0 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A5J3 TO A7J3)	TK1547	174-2189-00
W5	174-2674-00		CA ASSY,SP,ELEC:7,26 AWG,6.7 L,RIBBON (CONNECTED FROM A10J5 TO A17J2)	TK1547	174-2674-00
W8	174-2190-00		CA ASSY,SP,ELEC:40,28 AWG,3.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT (CONNECTED FROM A5J8 TO A8J4)	80009	174-2190-00
W10	174-2184-00		CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A5J10 TO A9J1)	TK1547	174-2184-00
W12	174-2184-00		CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A5J12 TO A17J1)	TK1547	174-2184-00
W14	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J14 TO A4J985)	TK1547	174-2187-00
W15	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J15 TO A17J4)	TK1547	174-2187-00
W16	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J16 TO A17J3)	TK1547	174-2187-00
W17	174-2190-00		CA ASSY,SP,ELEC:40,28 AWG,3.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT (CONNECTED FROM A2J17 TO A3J59)	80009	174-2190-00
W18	174-2190-00		CA ASSY,SP,ELEC:40,28 AWG,3.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT (CONNECTED FROM A2J18 TO A3J60)	80009	174-2190-00
W19	174-2184-00		CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J19 TO A31J10)	TK1547	174-2184-00
W20	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J20 TO A31J2)	TK1547	174-2187-00
W21	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J21 TO A31J3)	TK1547	174-2187-00
W22	174-2187-00		CA ASSY,SP,ELEC:40,28 AWG,4.5 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A2J22 TO A31J1)	TK1547	174-2187-00
W24	174-2189-00		CA ASSY,SP,ELEC:34,28 AWG,12.0 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A3J24 TO A4J965)	TK1547	174-2189-00
W61	174-0034-00		CA ASSY,SP,ELEC:28 AWG,3.0 L,RIBBON 2X17 X 2X17 0.1 CTR BOX (CONNECTED FROM A3J61 TO A6J46)	23633	ORDER BY DESCRIPTION

## Replaceable Electrical Parts

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Component number	Tektronix part number	Serial / Assembly number		Name & description	Mfr. code	Mfr. part number
		Effective	Discontinued			
W62	174-2190-00			CA ASSY,SP,ELEC:40,28 AWG,3.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT (CONNECTED FROM A3J62 TO A6J47)	80009	174-2190-00
W64	174-2325-00			CA ASSY,SP,ELEC:20,28 AWG,6.0 L,RIBBON,1 X 20,0.1 CTR (CONNECTED FROM A3J64 TO A7J2)	80009	174-2325-00
W69	174-2586-00			CA ASSY SP:RIBBON,CPR,(2)4,26 AWG,24.6 L,(2)1X4,0.1 CTR BOTH ENDS,BLK CONN 24.6 L,WHITE CO (CONNECTED FROM A3J69 & A3J71 TO A8J9 & A8J10)	060D9	174-2586-00
W180	174-2184-00			CA ASSY,SP,ELEC:34,28 AWG,4.5 L,RIBBON,2 X 17,0.1 CTR,RCPT X 2 X 17,0.1 CTR,RCPT (CONNECTED FROM A4J180 TO A5J11)	TK1547	174-2184-00
W292	174-2185-00			CA ASSY,SP,ELEC:40,28 AWG,7.0 L,RIBBON,2 X 20,0.1 CTR,RCPT X 2 X 20,0.1 CTR,RCPT (CONNECTED FROM A4J292 TO A17J2)	TK1547	174-2185-00





# DIAGRAMS/CIRCUIT BOARD ILLUSTRATIONS

## Symbols

Graphic symbols and class designation letters are based on ANSI Standard Y32.2-1975.

Logic symbology is based on ANSI Y32.14-1973 in terms of positive logic. Logic symbols depict the logic function performed and may differ from the manufacturer's data.

Both overline and parenthesis indicate a low asserting state.

Example:  $\overline{\text{ID,CONTROL}}$  or (ID CONTROL)

Abbreviations are based on ANSI Y1.1-1972.

Other ANSI standards that are used in the preparation of diagrams by Tektronix, Inc. are:

- Y14.15, 1966 — Drafting Practices.
- Y14.2, 1973 — Line Conventions and Lettering.
- Y10.5, 1968 — Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering.

American National Standard Institute  
1430 Broadway, New York, New York 10018

## Component Values

Electrical components shown on the diagrams are in the following units unless noted otherwise:

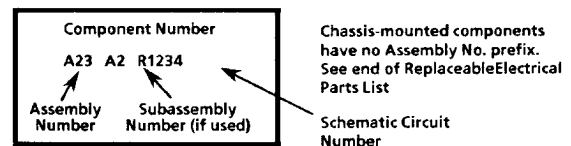
- Capacitors:
  - Values one or greater are in picofarads (pF).
  - Values less than one are in microfarads ( $\mu\text{F}$ ).
- Resistors = Ohms ( $\Omega$ ).

The following information and special symbols may appear in this manual.

## Assembly Numbers

Each assembly in the instrument is assigned an assembly number (e.g., A20). The assembly number appears on the diagram (in circuit board outline), circuit board illustration title, and lookup table for the schematic diagram.

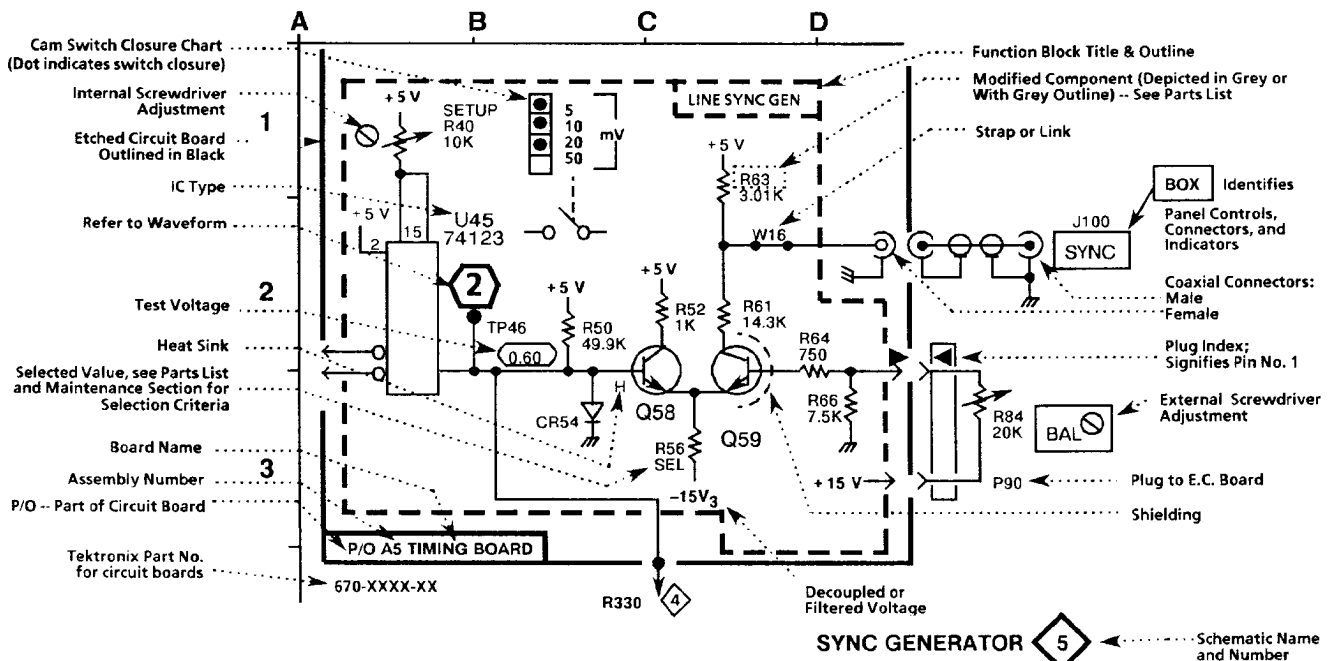
The Replaceable Electrical Parts List is arranged by assembly number in numerical sequence; the components are listed by component number. Example:



## Grid Coordinates

The schematic diagram and circuit board component location illustration have grids. A lookup table with the grid coordinates is provided for ease of locating the component. Only the components illustrated on the facing diagram are listed in the lookup table.

When more than one schematic diagram is used to illustrate the circuitry on a circuit board, the circuit board illustration may only appear opposite the first diagram; the lookup table will list the diagram number of other diagrams that the other circuitry appears on.



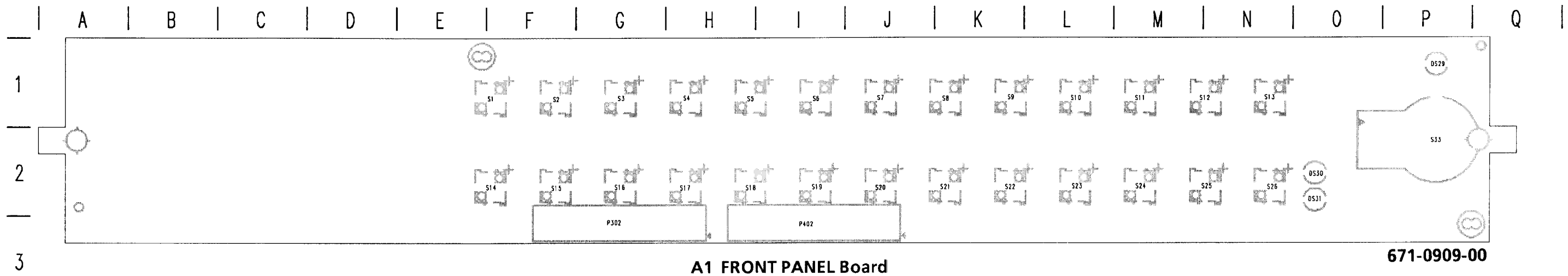




# **A1 FRONT PANEL**







671-0909-00

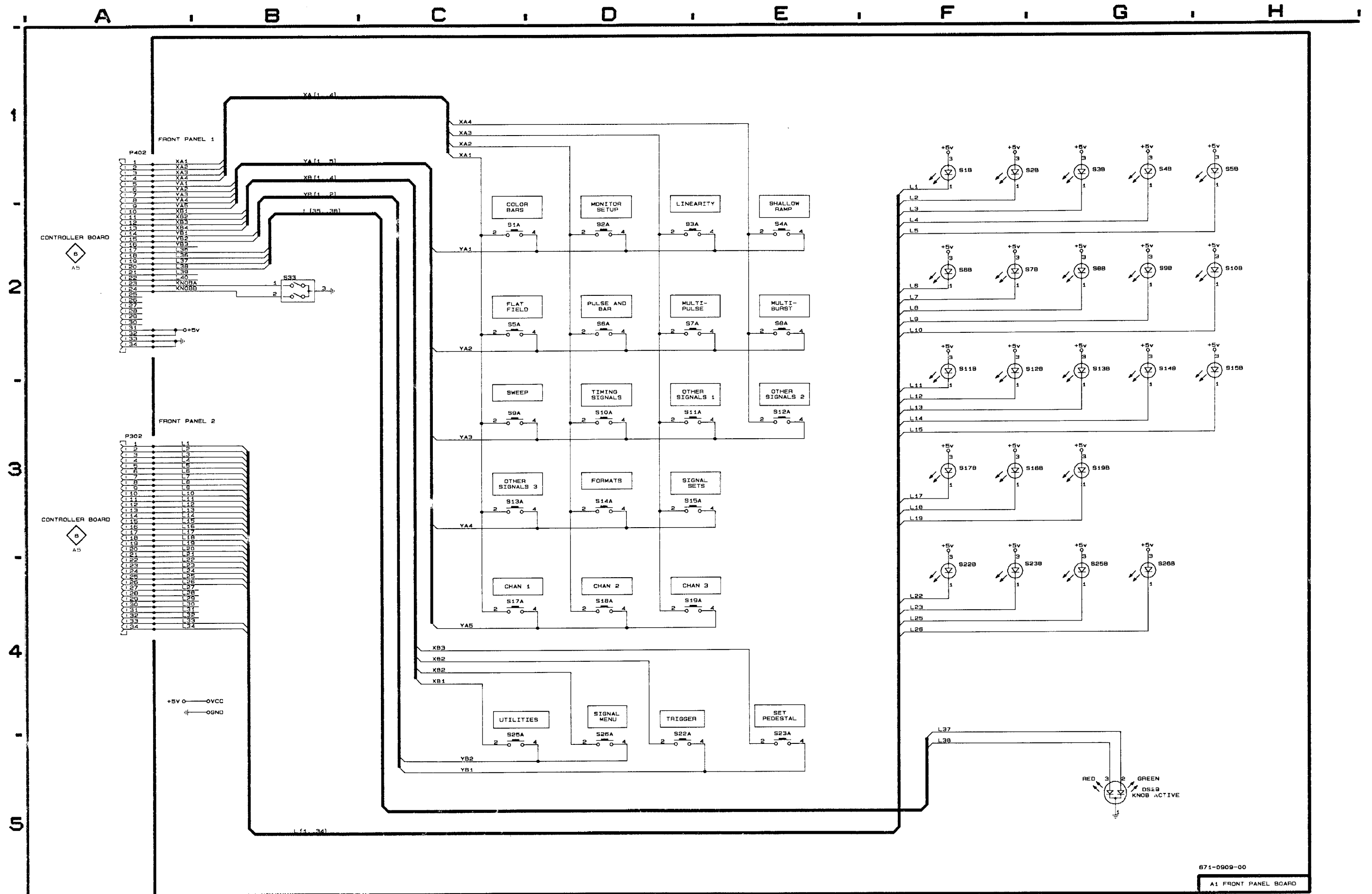
Static Sensitive Devices  
See Maintenance Section

**Schematic Diagram < 1 >  
Look-up Chart  
FRONT PANEL Board**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram.

**ASSEMBLY A1**

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
DS29	G5	P1	S11A	D3	M1
P302	A3	G3	S11B	F2	M1
P402	A1	I3	S12A	E3	M1
S1A	C2	F1	S12B	F2	M1
S1B	F1	F1	S13A	C3	N1
S2A	D2	F1	S13B	G2	N1
S2B	F1	F1	S14A	D3	F2
S3A	D2	G1	S14B	G2	F2
S3B	G1	G1	S15A	D3	F2
S4A	E2	H1	S15B	H2	F2
S4B	G1	H1	S17A	C4	H2
S5A	C2	H1	S17B	F3	H2
S5B	H1	H1	S18A	D4	H2
S6A	D2	I1	S18B	F3	H2
S6B	F2	I1	S19A	D4	I2
S7A	D2	J1	S19B	G3	I2
S7B	F2	J1	S22A	D5	K2
S8A	E2	K1	S22B	F4	K2
S8B	G2	K1	S23A	E5	L2
S9A	C3	K1	S23B	F4	L2
S9B	G2	K1	S25A	C5	M2
S10A	D3	L1	S25B	G4	M2
S10B	H2	L1	S26A	D5	N2
			S26B	G4	N2
			S33	B2	P2



871-0909-00  
A1 FRONT PANEL BOARD







# **A2 OSCILLATOR**

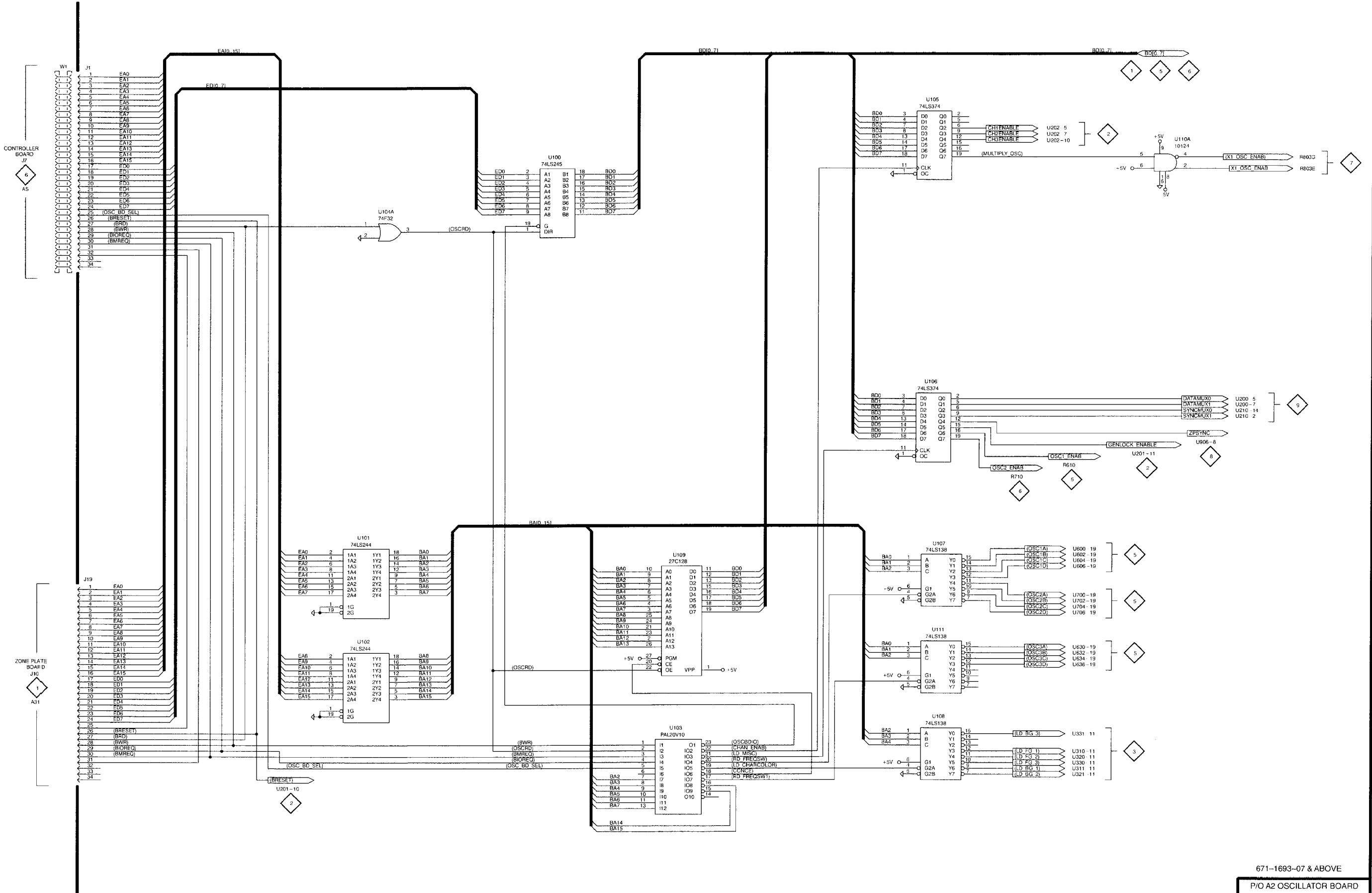






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## Schematic Diagram <2> Look-up Chart OSCILLATOR Board

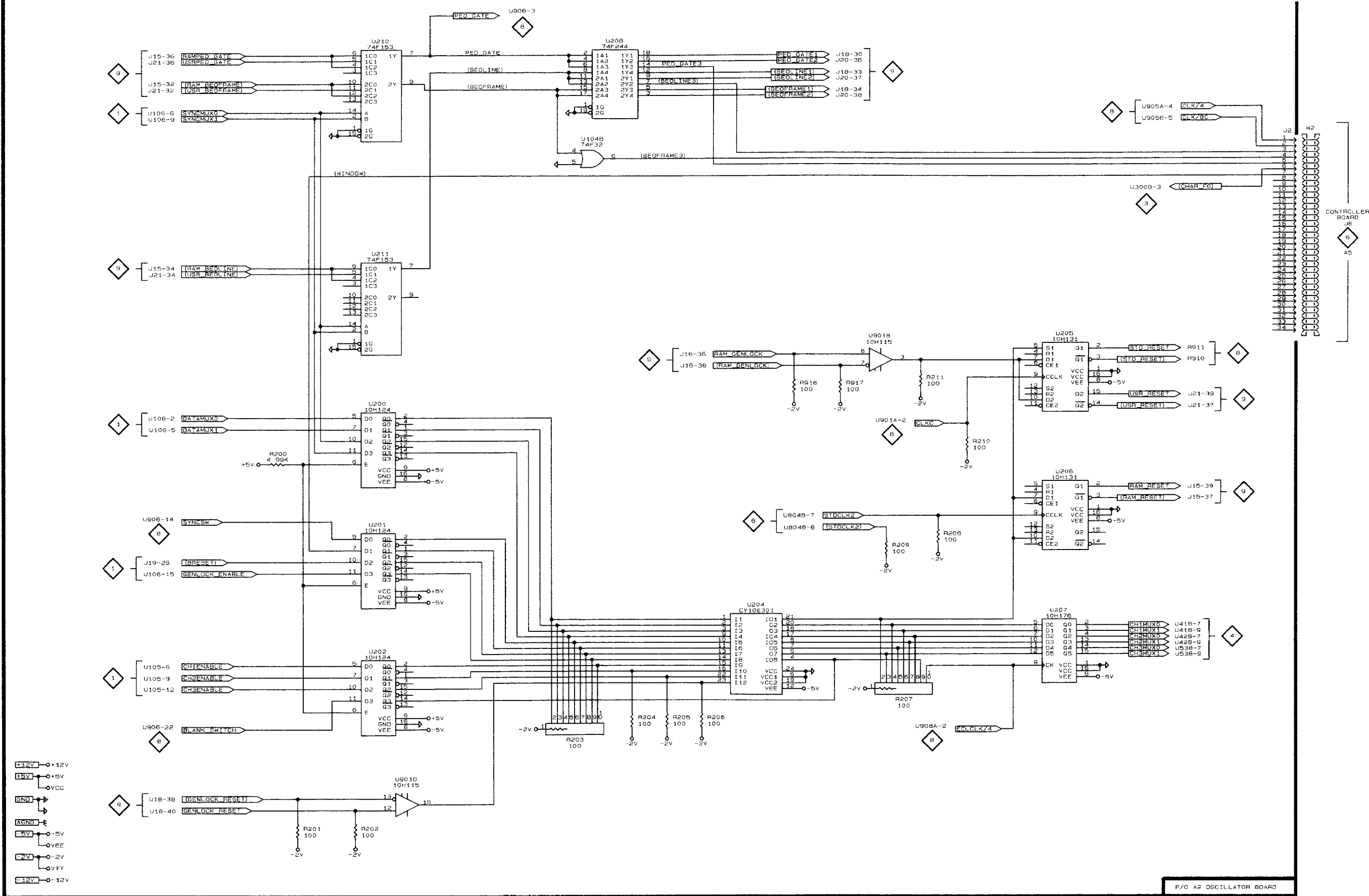
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** Partial A2 also shown on diagrams 1, 3, 4, 5, 6, 7, 8, 9, and 10.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J2	H1	A4
R200	B3	K10
R201	B5	K6
R202	C5	K6
R203	D5	L8
R204	D4	K9
R205	D4	L8
R206	E4	K8
R207	F4	L10
R208	F3	L10
R209	F4	L10
R210	F3	M9
R211	F3	M9
R916	E3	K5
R917	E3	K5
U104B	D1	B4
U200	C3	K8
U201	C3	J8
U202	C4	K10
U204	E4	K8
U205	G2	L8
U206	G3	L10
U207	G4	K10
U208	D1	J8
U210	C1	J10
U211	C2	J10
U901B	E2	L6
U901D	C5	L6
W2	H1	

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**Schematic Diagram <3> Look-up Chart  
OSCILLATOR Board**

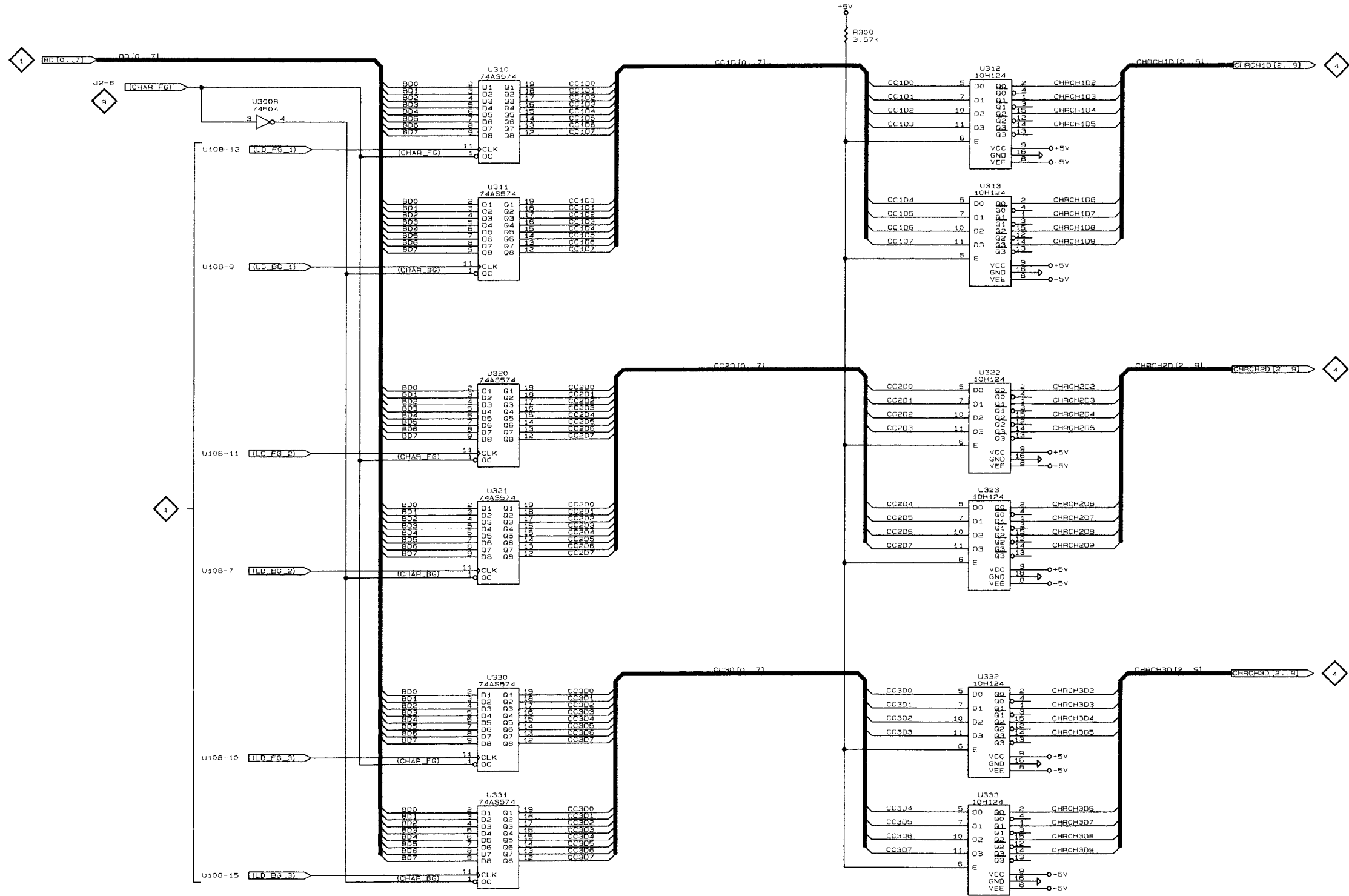
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** *Partial A2 also shown on diagrams 1, 2, 4, 5, 6, 7, 8, 9, and 10.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R300	E1	I9
U300B	B1	C4
U310	C1	F10
U311	C2	G10
U312	F1	F8
U313	F2	G8
U320	C3	G10
U321	C3	H10
U322	F3	G8
U323	F3	H8
U330	C4	H10
U331	C4	I10
U332	F4	H8
U333	F4	I8

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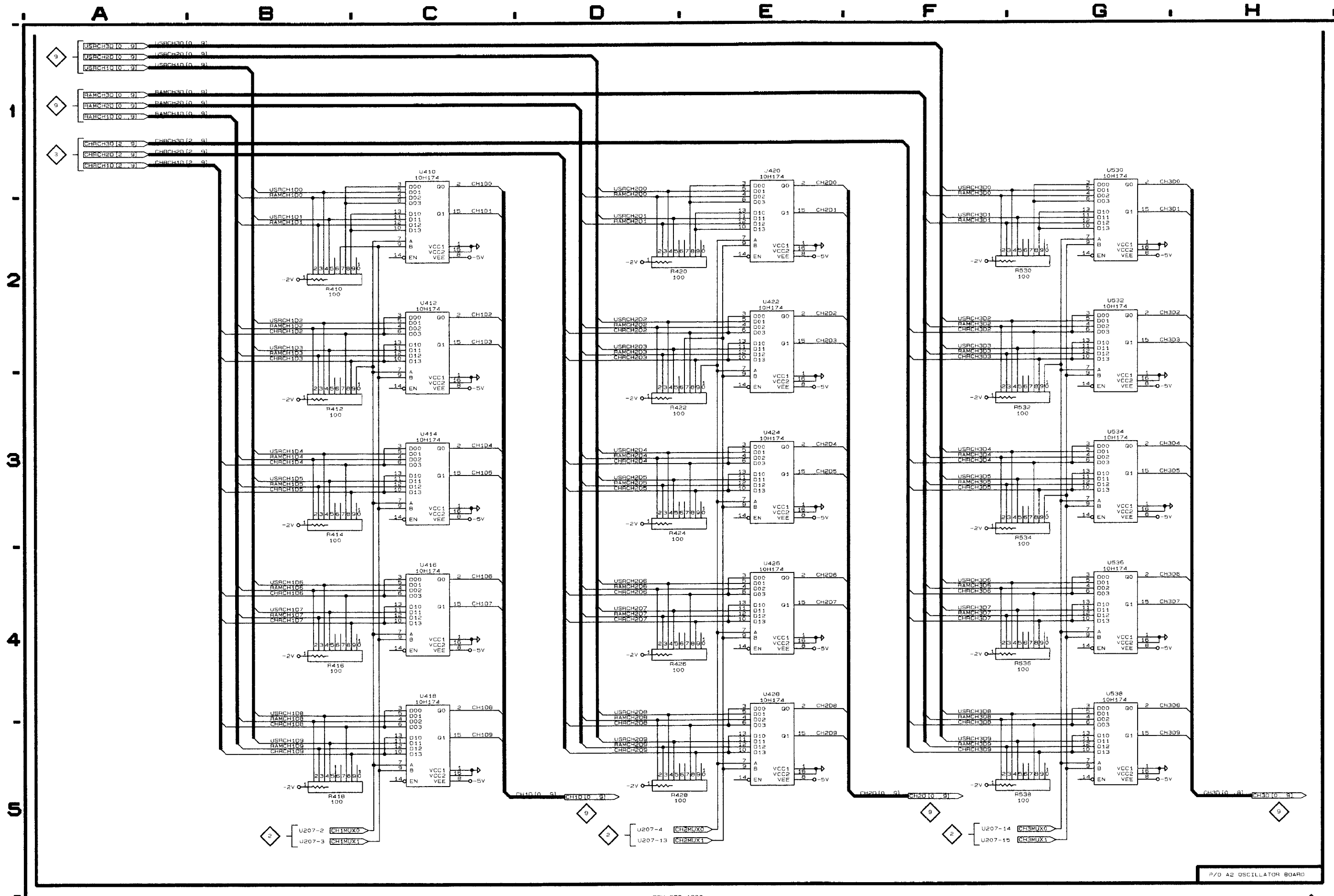


**Schematic Diagram <4> Look-up Chart  
OSCILLATOR Board**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** *Partial A2 also shown on diagrams 1, 2, 3, 5, 6, 7, 8, 9, and 10.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R410	B2	N7
R412	B3	N7
R414	B3	L7
R416	B4	L6
R418	B5	M6
R420	D2	N6
R422	D3	N6
R424	D3	M7
R426	D4	L9
R428	D5	M9
R530	F2	N9
R532	F3	N9
R534	F3	M8
R536	F4	N8
R538	F5	N8
U410	C1	O7
U412	C2	N7
U414	C3	M7
U416	C4	M6
U418	C4	M6
U420	E1	N6
U422	E2	O6
U424	E3	M7
U426	E4	M9
U428	E4	M9
U530	G1	N9
U532	G2	O9
U534	G3	M8
U536	G4	N8
U538	G4	O8



≠/O A2 OSCILLATOR BOARD

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**Schematic Diagram <5> Look-up Chart  
OSCILLATOR Board  
670-1693-07 & UP**

*The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram.*

**Assembly A2.** Partial Assembly A2 also shown on Diagram 1, 2, 3, 4, 6, 7, 8, 9, and 10 .

Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc
R600	B1	A9	S606	A4	D8	U600	B1	A8
R602	B2	C9	S607	A5	D8	U602	B3	B8
R604	B3	D9	S630	F1	A7	U604	B4	C8
R606	B4	D7	S631	F2	A7	U606	B5	C6
R630	F1	A7	S632	F2	B7	U630	G1	A6
R632	F2	B7				U632	G3	B6
			S633	F3	B7			
R634	F3	C7	S634	F3	C7	U634	G4	B6
R636	F4	C7	S635	F4	C7	U636	G5	C6
R700	D1	B9	S636	F4	D7	U700	E1	B8
R702	D2	C9	S637	F5	D7	U702	E3	C8
R704	D3	D9	S700	C1	A8	U704	E4	D8
R706	D4	D7				U706	E5	D6
			S701	C2	A8			
S600	A1	A8	S702	C2	B8			
S601	A2	A8	S703	C3	B8			
S602	A2	B8	S704	C3	C8			
S603	A3	C8	S705	C4	C8			
S604	A3	C8	S706	C4	D8			
S605	A4	C8	S707	C5	D8			

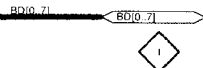
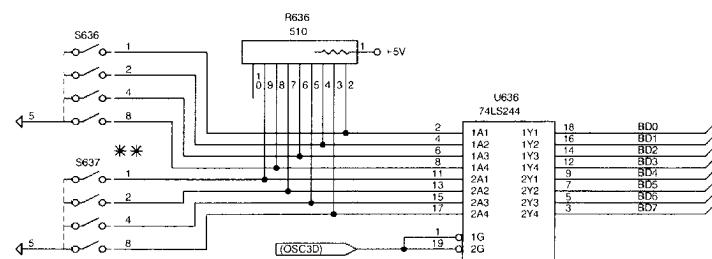
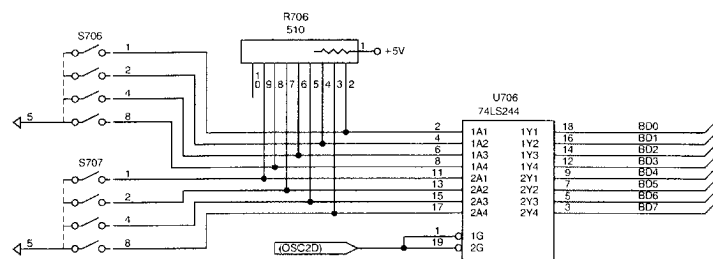
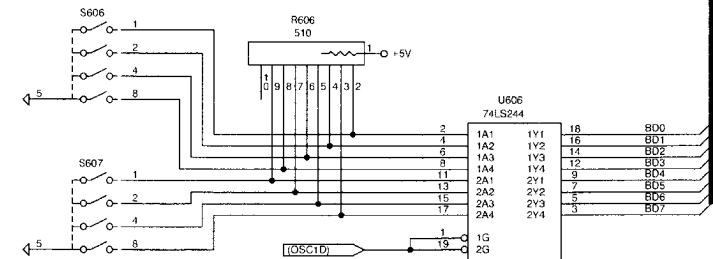
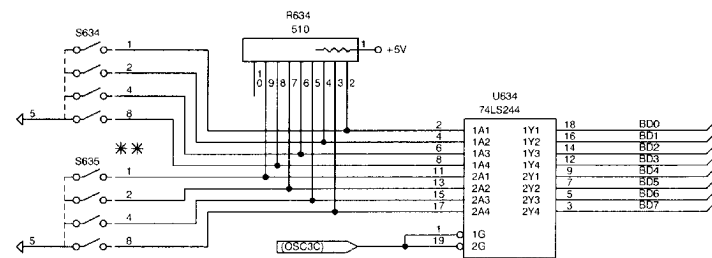
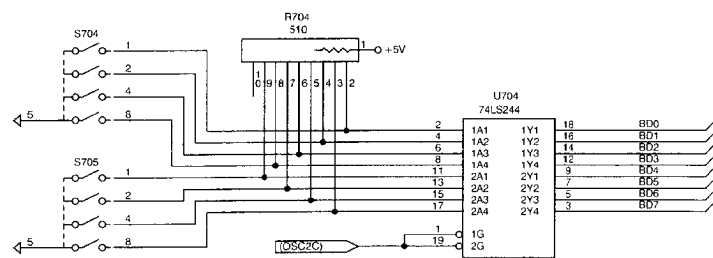
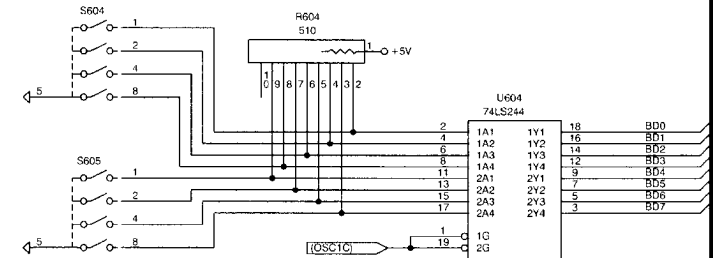
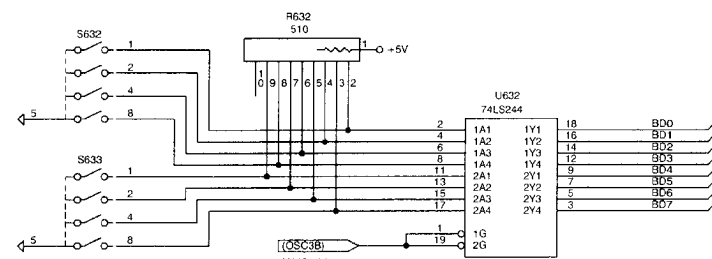
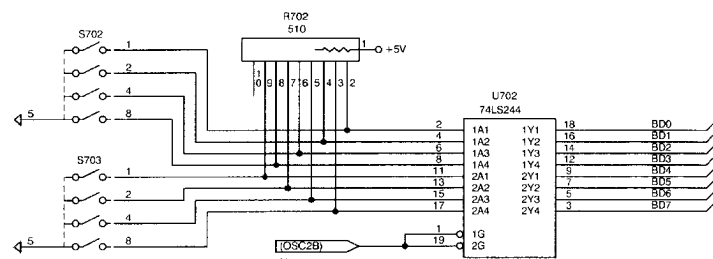
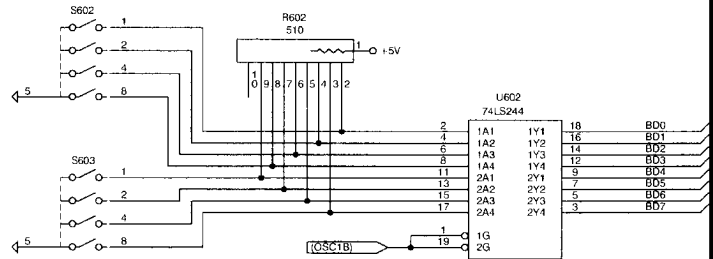
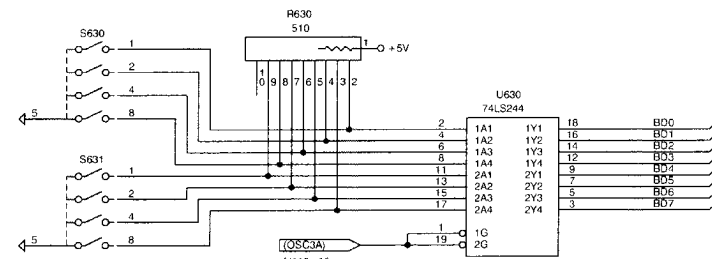
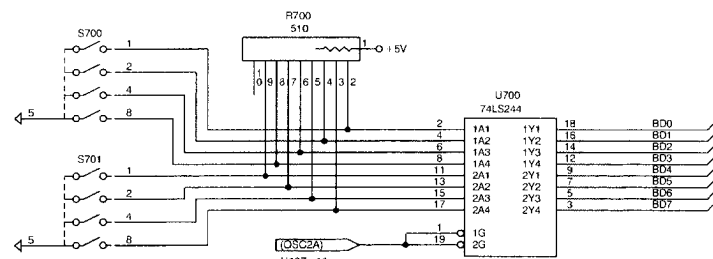
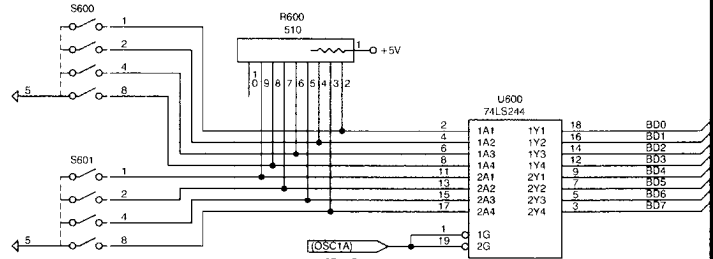
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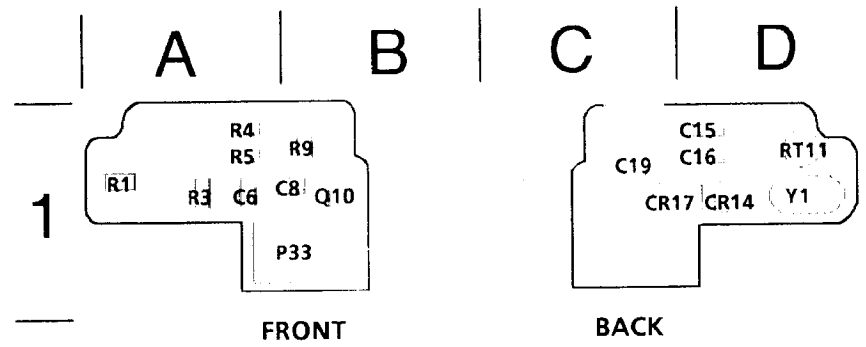
671-1693-07 & ABOVE

P/O A2 OSCILLATOR BOARD

**Schematic Diagram < 6 > Look-up Chart  
OSCILLATOR and OVEN Boards**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** Partial A2 also shown on diagrams 1, 2, 3, 4, 5, 7, 8, 9, and 10.



**A2A1 & A2A2 OVEN Boards**

Static Sensitive Devices  
See Maintenance Section

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C600	E3	F7	R712	E4	G7
C601	C3	F7	R713	E4	G7
C602	D2	G6	R714	D3	H6
C603	F2	G6	R715	D4	H6
C700	E5	H7	R716	E4	H7
C701	C5	H7	R717	E4	H7
C702	D4	H6	R718	G4	H7
C703	F4	H6	R719	H4	H6
DS600	G2	F7	R720	H4	H6
DS700	G4	H7	R721	H4	H6
			R722	G4	H6
J600	C2	G4	U610A	F2	G6
J601	G2	F6	U610B	F4	G6
J700	C4	I4	VR600	G2	F6
J701	G4	H6	VR700	G4	H6
L600	E2	F7			
L700	E4	H7			
P601	G2				
P701	G4				
Q600	D2	G			
Q601	E2	F7			
Q602	H2	G5			
Q700	D4	G7			
Q701	E4	H7			
Q702	H4	I5			
R610	D2	G7			
R611	D2	G7			
R612	E2	G7			
R613	E2	G7			
R614	D1	G6			
R615	D2	G6			
R616	E2	G6			
R617	E2	G7			
R618	G2	F7			
R619	H2	G6			
R620	H2	G6			
R621	H2	G7			
R622	G2	G6			
R710	D4	G7			
R711	D4	G7			
			C6	B2,B4	A1
			C8	B2,B4	B1
			C15	B2,B4	D1
			C16	A2,A4	D1
			C17	B2,B4	D1
			C19	A2,A4	C1
			CR14	A2,A4	D1
			P33	C2,C4	A1
			Q10	B2,B4	B1
			R1	A2,A4	A1
			R3	A2,A4	A1
			R4	B2,B4	A1
			R5	B2,B4	A1
			R9	B2,B4	B1
			RT11	A2,A4	D1
			Y1	B2,B4	D1

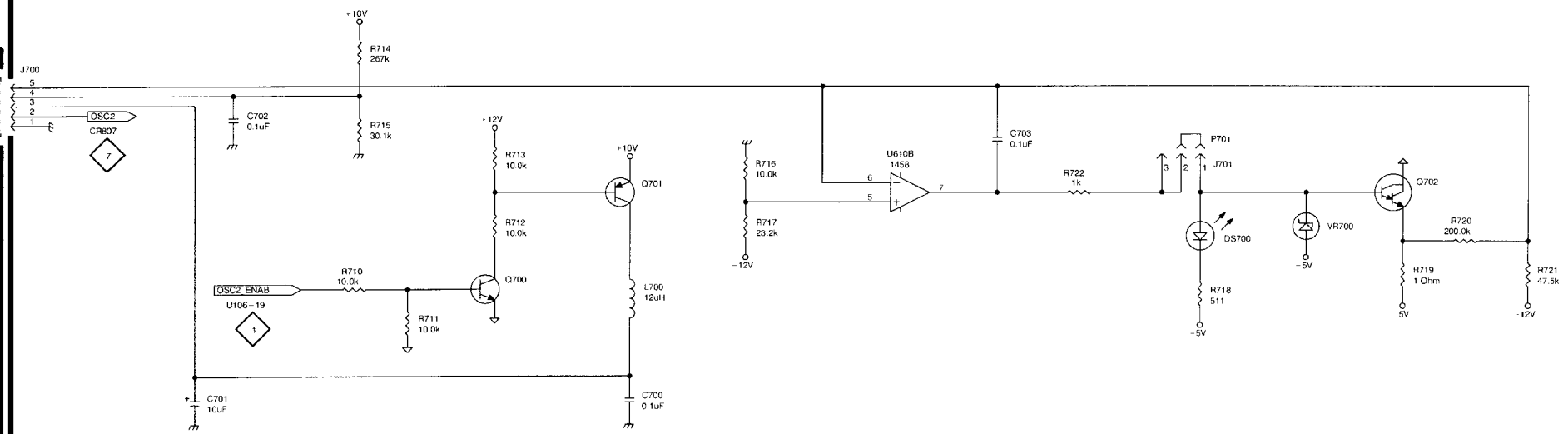
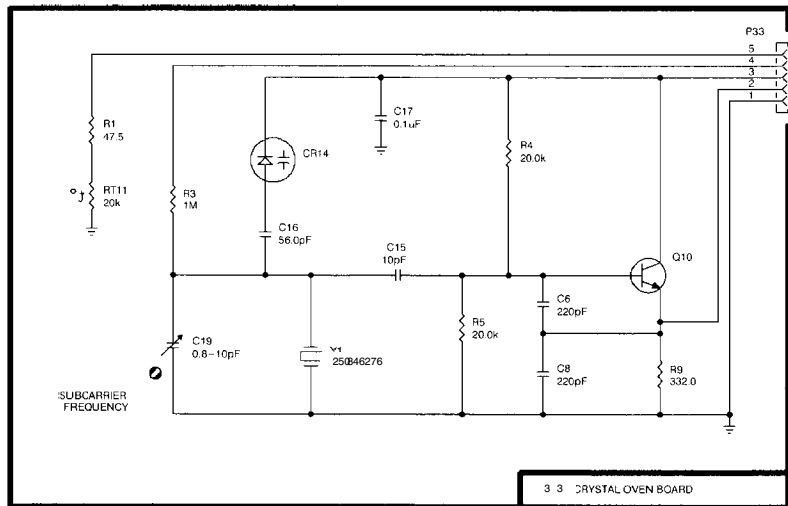
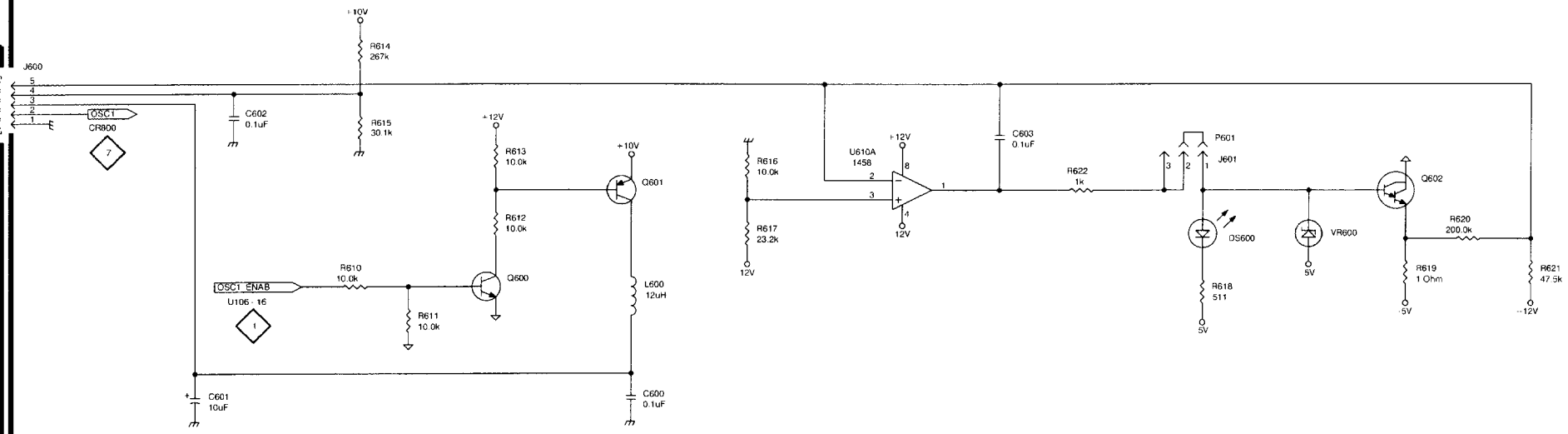
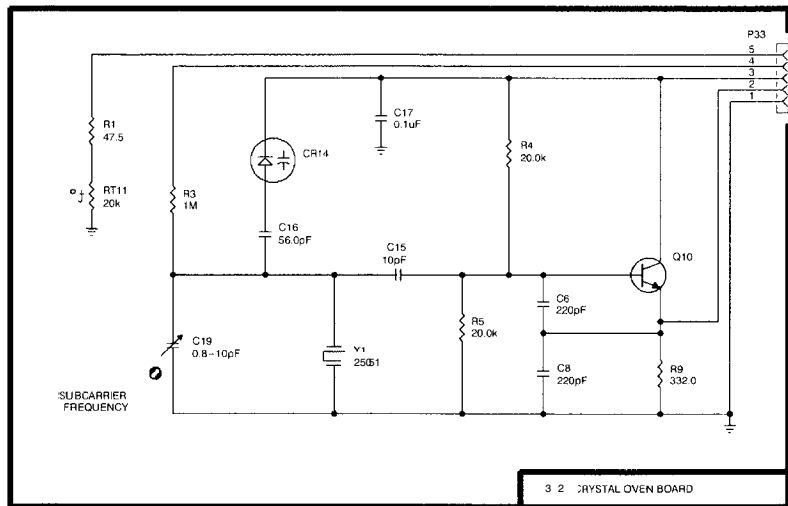
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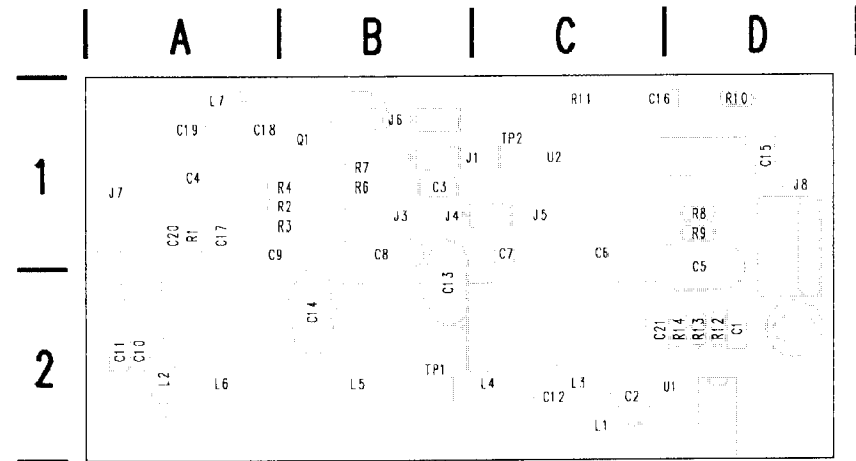
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671-1693-07 & ABOVE

P/O A2 OSCILLATOR BOARD





**A2A3 OSCILLATOR FILTER Board**

**Schematic Diagram <7> Look-up Chart  
OSCILLATOR and OSCILLATOR FILTER Boards  
671-1693-07 & up**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram.

**Assembly A2.** Partial Assembly A2 also shown on Diagram 1, 2, 3, 4, 5, 6, 8, 9, and 10.

Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc	Comp No	Diag Loc	Bd Loc
C800	B1	F3	R803D	D5	K1	C5	D3	D2	R1	B3	A1
C801	B1	F2	R803E	F5	K1	C6	D3	C1	R2	B3	B1
C802	C1	E3	R803F	B5	K1	C7	D3	C1	R3	B3	B1
C803	C1	E2	R803G	F5	K1				R4	B3	B1
C804	E1	F1	R803I	B5	K1	C8	C3	B1	R6	B3	B1
C805	C5	H3	R804	C5	J2	C9	C3	A1			
C806	D5	H3	R805	C5	J1	C10	A3	A2	R7	B3	B1
C807	B2	F3	R806	B2	B2	C11	A4	A2	R8	G3	D1
C808	B2	E4	R807	B2	E4	C12	E4	C2	R9	F3	D1
C812	E1	E1	R808	B2	E4	C13	D3	B2	R10	G4	D1
C819	B1	F2	R809	B2	E4				R11	G4	C1
						C14	C3	B2	R12	E3	D2
CR800	A1	F3	R810	B1	E3	C15	G3	D1	R13	E3	D2
CR801	A1	G3	R811	C2	E4	C16	F4	C1	R14	E3	D2
CR802	B1	F2	R812	D2	E3	C17	B3	A1			
CR803	B1	F2	R813	B1	F3	C18	A3	A1	TP1	E3	B2
CR804	D1	E2	R815	A5	J1	C19	A3	A1	TP2	E3	C1
CR805	D1	E2	R816	A5	J1	C20	A3	A1			
CR806	D1	E2				C21	E4	D2	U1	F3	D2
CR807	D1	E2	U800	C1	F2				U2A	G3	C1
			U801	E1	F1	J1	C3	B1	U2B	G4	C1
J800	D1	E1	U802A	D2	E3	J3	C3	B1	U2C	G4	C1
J922	A3	F1	U802B	D2	E3	J4	D3	C1			
J923	H3	J1	U802C	B2	E3	J5	D3	C1			
			U804A	D5	J1	J6	D3	B1			
L800	C1	E2	U804C	A5	J1	J7	A3	A1			
L801	D1	E2	U807A	F5	K1	J8	G3	D1			
L802	E1	F1	U807B	F5	K1						
L803	C5	I3	U807D	G5	K1	L1	E3	C2			
L804	D5	I3				L2	A4	A2			
L806	B1	F2				L3	D3	C2			
						L4	C3	C2			
P800	D1		<b>A2A3 OSCILLATOR FILTER RD</b>			L5	C3	B2			
						L6	C3	A2			
R800	A2	F3				L7	A3	A1			
R801	B1	F2	C1	F3	D2						
R803A	G5	K1	C2	E3	C2	P6	D3	B1			
R803B	G5	K1	C3	B3	B1						
R803C	D5	K1	C4	B3	A1	Q1	B3	B1			

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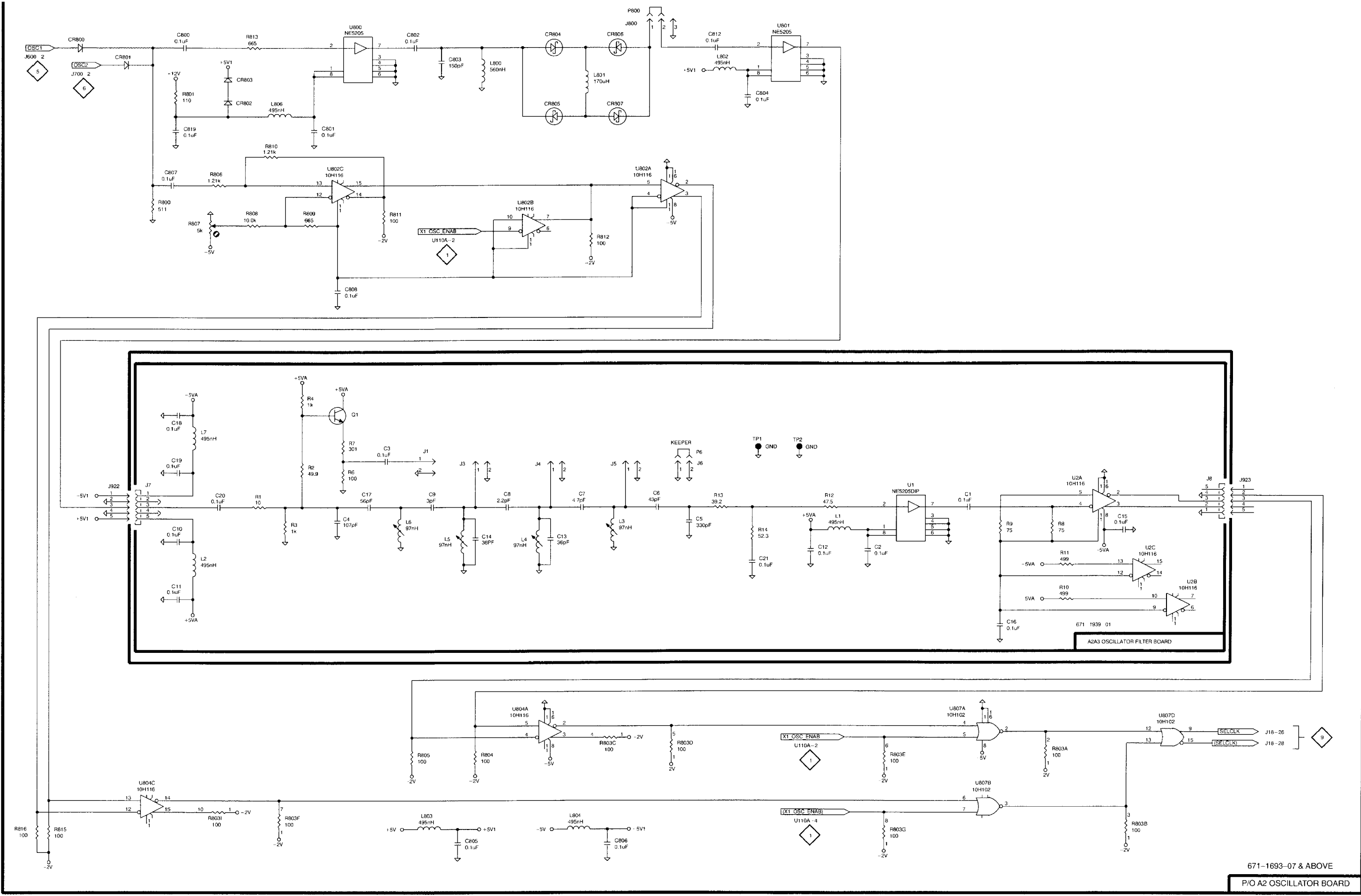
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671-1693-07 & ABOVE

P/O A2 OSCILLATOR BOARD

**Schematic Diagram <8> Look-Up Chart  
OSCILLATOR Board**

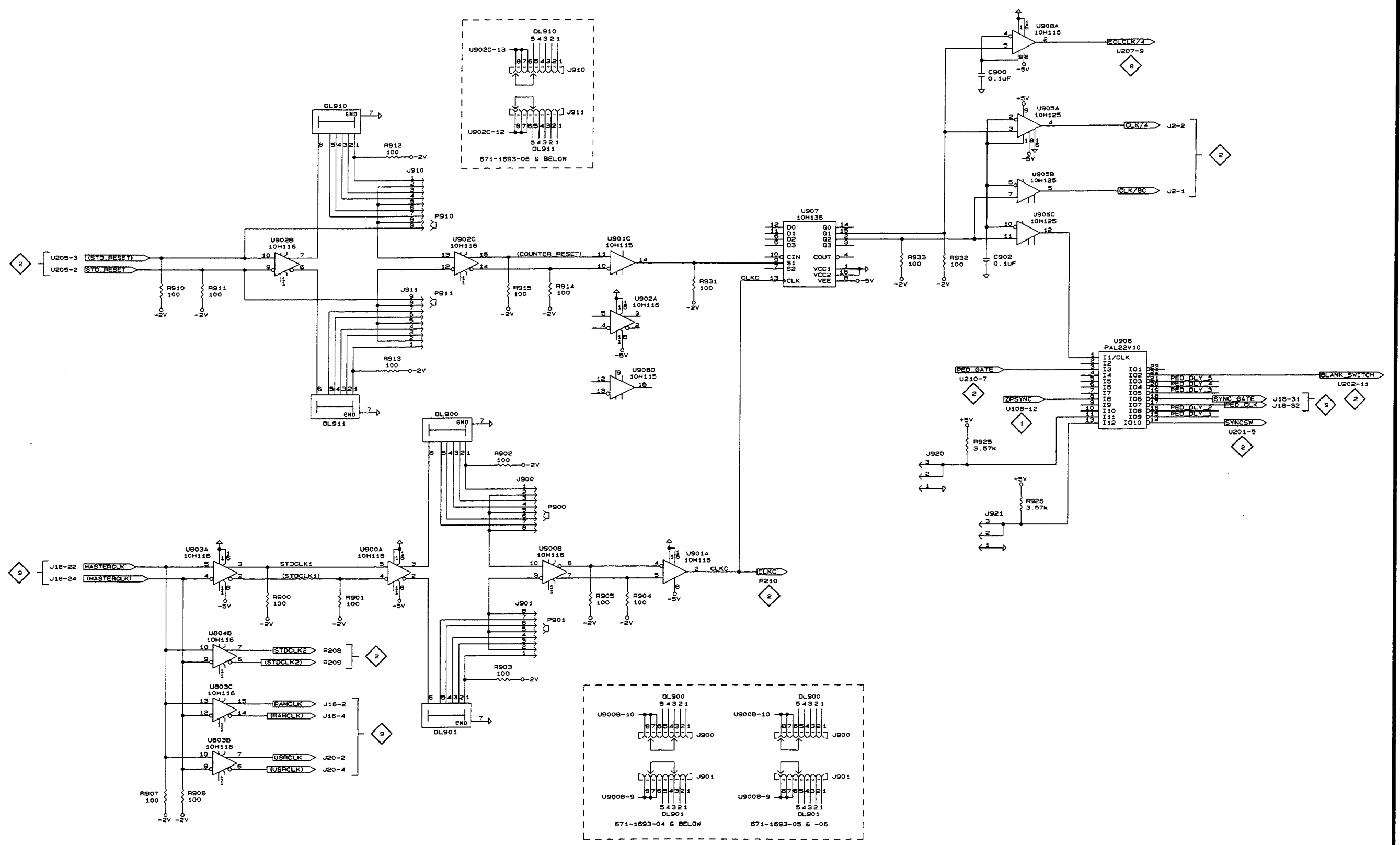
*The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram.*

**Assembly A2.** Partial Assembly A2 also shown on Diagram 1, 2, 3, 4, 5, 6, 7, 9, and 10.

Comp No	Diag Loc	Bd Loc
C900	F1	K4
C902	F2	K4
DL900	C3	J6
DL901	C4	K7
DL910	B1	J4
DL911	B3	K5
J900	D3	J6
J901	D4	J6
J910	C2	J5
J911	C2	J5
J920	F3	J3
J921	F3	K4
P900	D3	
P901	D4	
P910	C2	
P911	C2	
R900	B4	K7
R901	C4	K6
R902	C3	J6
R903	C4	J7
R904	D4	K6
R905	D4	K6
R907	B5	J2
R908	B5	J2
R910	B2	K4
R911	B2	K5
R912	C1	J4
R913	C3	J5
R914	D2	K7
R915	C2	K7
R925	F3	J4
R926	F3	K4
R931	D2	L4
R932	F2	K2
R933	F2	K3
U803A	B4	O1
U803B	B5	O1
U803C	B4	O1
U804B	B4	J1
U900A	C4	K6
U900B	D4	K6
U901A	D4	K6
U901C	D2	K6
U902A	D2	K4
U902B	B2	K4
U902C	C2	K4
U905A	F1	K3
U905B	F2	K3
U905C	F2	K3
U906	G3	J3
U907	E2	L3
U908A	F1	K3
U908D	D3	K3

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671-1693-06 & BELOW

671-1693-04 & BELOW

671-1693-05 & -06

671-1693-00 & ABOVE  
P/O A2 OSCILLATOR BOARD

**Schematic Diagram <9> Look-up Chart  
OSCILLATOR Board**

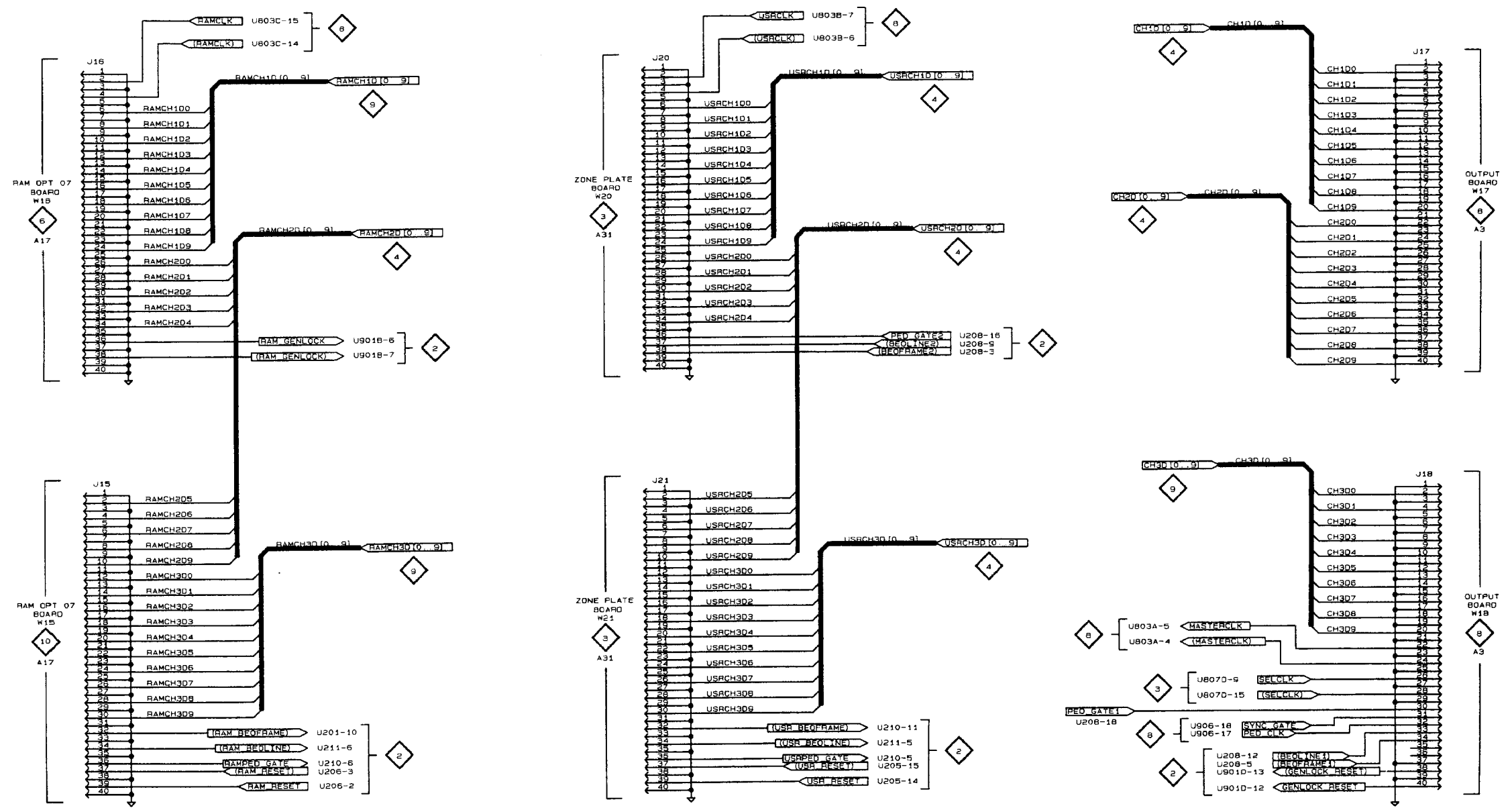
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** *Partial A2 also shown on diagrams 1, 2, 3, 4, 5, 6, 7, 8, and 10.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J15	B3	P9
J16	B1	P7
J17	G1	L1
J18	G3	N1
J20	D1	O7
J21	D3	O9

A B C D E F G H

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P/O A2 OSCILLATOR BOARD

### Schematic Diagram < 10 > Look-up Chart OSCILLATOR Board

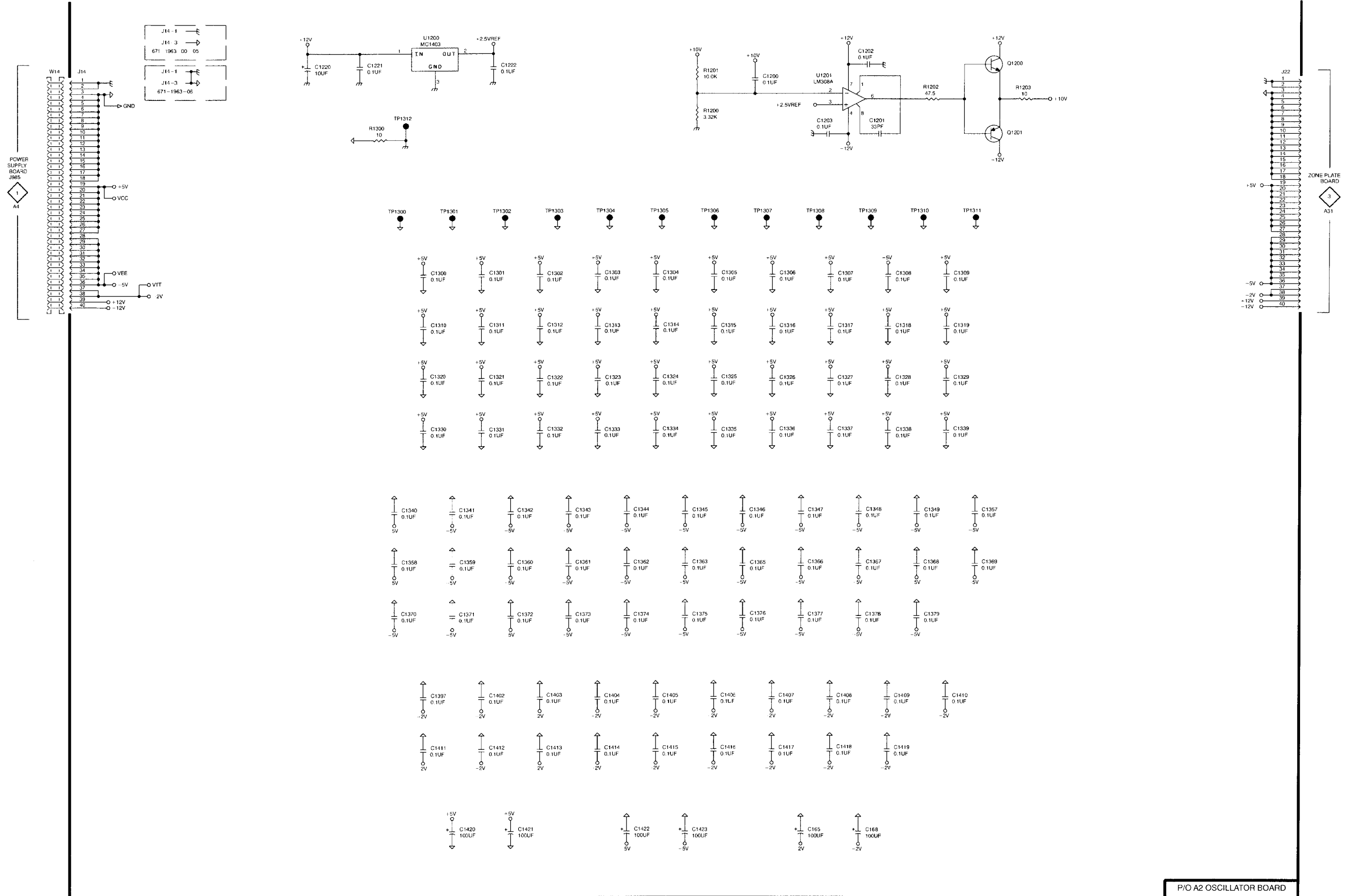
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A2** Partial A2 also shown on diagrams 1, 2, 3, 4, 5, 6, 7, 8, and 9.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C165	E5	O2	C1336	D3	D3	C1409	F4	N7
C168	E5	K7	C1337	D3	K4	C1410	F4	M7
C1200	E1	I7	C1338	D3	J2	C1411	C5	M7
C1201	F1	I6						
C1202	F1	I7	C1339	E3	K9	C1412	C5	J6
			C1340	C3	F9	C1413	D5	K7
C1203	E1	I7	C1341	C3	G9	C1414	D5	N6
C1220	B1	J6	C1342	C3	L10	C1415	D5	M6
C1221	B1	I6	C1343	D3	K10	C1416	E5	M6
C1222	C1	I7						
C1300	C2	B4	C1344	D3	J10	C1417	E5	K2
			C1345	D3	I9	C1418	E5	K4
C1301	C2	A8	C1346	E3	H9	C1419	F5	K2
C1302	C2	B8	C1347	E3	H9	C1420	C5	O3
C1303	D2	D8	C1348	E3	G9	C1421	C5	C5
C1304	D2	D6						
C1305	D2	A1	C1349	F3	K7	C1422	D5	O2
			C1357	F3	J4	C1423	D5	B5
C1306	E2	B1	C1358	C4	K5	C1450	E3	A6
C1307	E2	B1	C1359	C4	L4	C1451	E3	B6
C1308	E2	C1	C1360	C4	O2	C1452	F3	B6
C1309	F2	A2				C1453	F3	C6
C1310	F2	B2	C1361	D4	K4			
			C1362	D4	J2	J14	A1	P4
C1311	C2	C2	C1363	D4	M9	J22	H1	P2
C1312	C2	C2	C1365	E4	M8			
C1313	C2	B4	C1366	E4	N8	Q1200	F1	I7
C1314	D2	C4				Q1201	F1	I7
C1315	D2	B8	C1367	E4	L9			
			C1368	F4	M7	R1200	E1	I6
C1316	D2	C8	C1369	F4	M7	R1201	E1	I6
C1317	E2	D8	C1370	C4	O7	R1202	F1	I7
C1318	E2	D6	C1371	C4	K7	R1203	F1	I7
C1319	E2	F8				R1300	B1	J6
C1320	F2	F9	C1372	C4	M10			
			C1373	D4	J9	TP1300	C2	B1
C1321	F2	G8	C1374	D4	N10	TP1301	C2	D1
C1322	C3	G9	C1375	D4	O9	TP1302	C2	J1
C1323	C3	G8				TP1303	D2	O1
C1324	C3	H8	C1376	E4	N9	TP1304	D2	A5
C1325	D3	G9	C1377	E4	M10			
			C1378	E4	K9	TP1305	D2	F8
C1326	D3	H9	C1379	F4	N7	TP1306	E2	K5
C1327	D3	H8	C1397	C4	M10	TP1307	E2	O6
C1328	E3	I8				TP1308	E2	A9
C1329	E3	H9	C1402	C4	K10	TP1309	F2	F10
C1330	E3	I9	C1403	D4	L8	TP1310	F2	I10
			C1404	D4	M9	TP1311	F2	M10
C1331	F3	K8	C1405	D4	N8	TP1312	C1	I7
C1332	F3	J8	C1406	E4	M8			
C1333	C3	J9				U1200	C1	J7
C1334	C3	J8	C1407	E4	O7	U1201	E1	I6
C1335	C3	J9	C1408	E4	O6			
						W14	A1	

A B C D E F G H

1  
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P/O A2 OSCILLATOR BOARD







# A3 OUTPUT

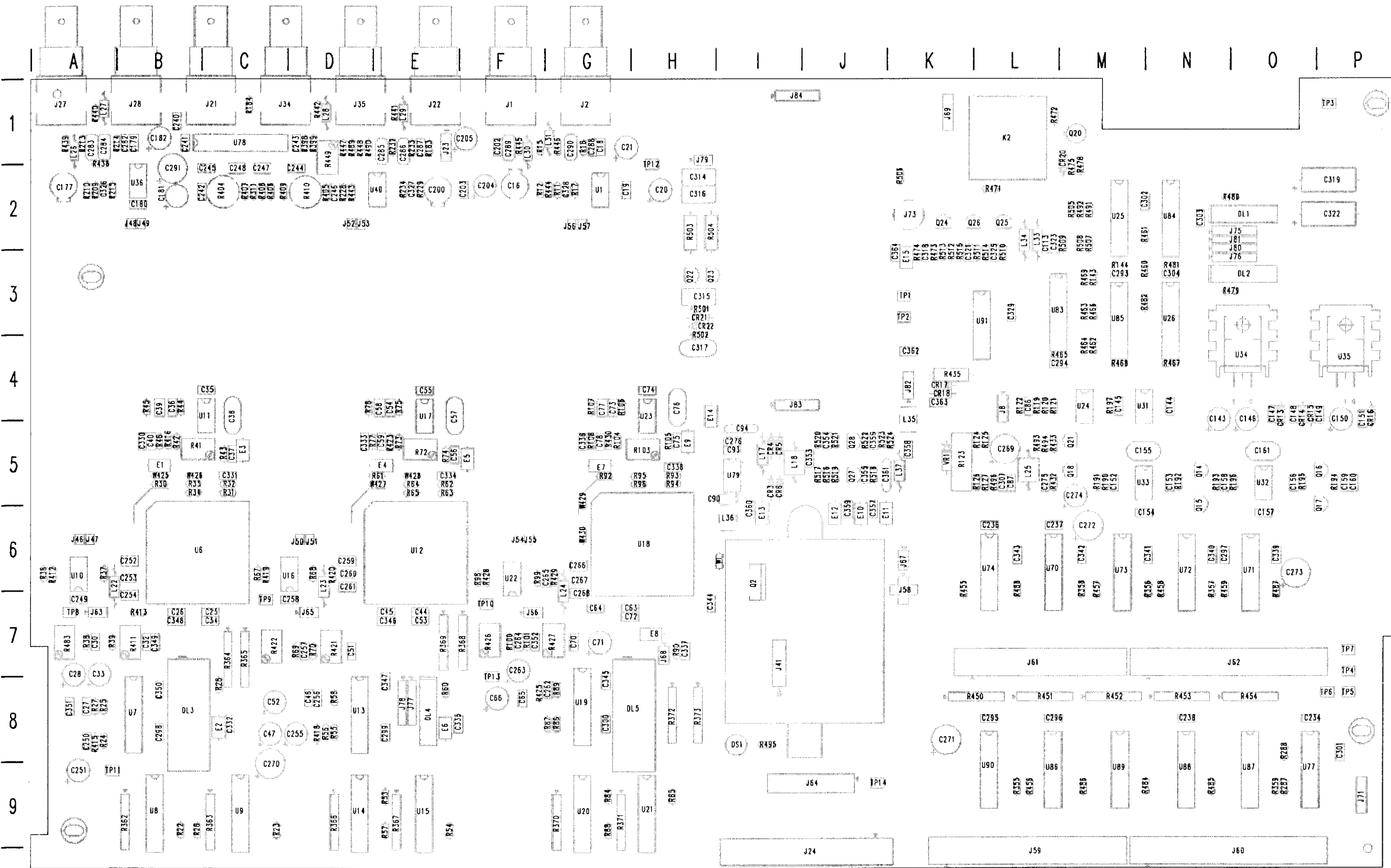




TSG 1001  
**OUTPUT BOARD**  
**671-1789-03 & UP**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board. **A3 ASSEMBLY**

CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC			CIRCUIT NUMBER SCHEM BOARD LOCATION LOCATION			CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC			CKT NO. SCHEM SCHEM BD LOC LOC											
C16	E5	6	F2	C200	F4	6	F2	C319	H5	5	P2	F12	F1	5	J6	Q2	E5	5	I6	R96	D2	3	H5	R416	C4	1	B5	R504	G2	7	H2	U71	G3	8	O6
C18	E4	6	G1	C202	F3	6	F1	C321	F4	5	K3	F13	F1	5	I5	Q14	G1	4	N5	R98	G2	3	F6	R418	E3	2	D8	R505	H3	5	M2	U72	G3	8	N6
C19	E5	6	G2	C203	F3	6	F2	C322	H5	5	P2	F14	B2	5	H5	Q15	G2	4	N5	R99	G2	3	F6	R419	H2	2	C6	R506	H3	5	K2	U73	G2	8	M6
C20	E5	6	H2	C204	F3	6	F2	C323	F4	5	L3	F15	F5	9	K3	Q16	G3	4	O5	R100	G4	3	F7	R420	F2	2	D6	R507	G4	5	M3	U74	G1	8	K6
C21	E4	6	G1	C205	F2	6	F1	C325	F4	5	L3	J1	H5	6	F1	Q17	G3	4	O6	R101	F4	3	F7	R421	G4	2	D7	R508	G4	5	M3	U77A	E2	8	O8
C25	D2	1	C7	C234	F3	8	O8	C326	F2	6	A2	J2	H4	6	G1	Q18	D4	5	M5	R103	C4	3	G5	R422	G4	2	C7	R509	G4	5	M3	U77B	F2	8	O8
C26	D2	1	B7	C236	G2	8	L6	C327	F3	6	E2	J8	D5	5	L4	Q20	C2	9	M1	R104	C4	3	G5	R423	E3	2	F5	R510	F4	5	L3	U78	D4	7	B1
C27	G2	1	A8	C237	G2	8	L6	C328	F5	5	G2	J21	G4	7	C1	Q21	D4	5	M5	R105	C4	3	H5	R425	E4	3	F8	R511	F4	5	L3	U79	C1	5	I5
C28	G2	1	A8	C238	D4	8	N8	C329	H5	5	L3	J22	G3	7	F1	Q22	F2	7	H3	R106	D5	3	G4	R426	G4	3	F7	R512	E4	5	K3	U83	C4	9	L3
C30	G5	1	A7	C240	B4	7	B1	C330	F3	1	B5	J23	F3	7	E2	Q23	F2	7	I3	R107	D5	3	G4	R427	G4	3	G7	R513	E4	5	K3	U84A	E3	9	N2
C32	G2	1	B7	C241	C4	7	B1	C331	F3	1	C5	J24	A3	4	I9	Q24	F4	5	K2	R108	F5	5	G5	R428	H2	3	F6	R514	F4	5	L3	U84B	F3	9	N2
C33	G1	1	A8	C242	C4	7	C2	C332	D3	1	O8	J27	H2	6	A1	Q25	F4	5	L2	R119	C5	5	L4	R429	F2	3	G6	R515	F4	5	K3	U85	E3	9	M3
C34	E2	1	C7	C243	C4	7	D1	C333	F3	2	D5	J28	H1	6	B1	Q26	F4	5	K2	R120	C5	5	L4	R430	C4	3	G5	R516	F1	5	J5	U86	C2	8	L8
C35	D4	1	C4	C244	D4	7	D2	C334	F3	2	F5	J34	H3	6	D1	Q27	F1	5	J5	R121	C5	5	L4	R432	D4	3	L5	R517	F1	5	J5	U87	C5	8	O8
C36	D5	1	B4	C245	D4	7	B2	C335	D2	2	F8	J35	H3	6	E1	Q28	G1	5	J5	R122	D5	5	L4	R433	D4	5	L5	R518	F1	5	J5	U88	C4	8	N8
C37	C5	1	C5	C246	F4	7	D2	C336	F3	3	G5	J41	H3	6	I8	R11	D5	6	G2	R123	E5	5	K5	R435	A1	5	K4	R519	E2	5	J5	U89	C2	8	M8
C38	D4	1	C5	C247	F4	7	C2	C337	D3	3	H7	J46	B1	6	A6	R12	F5	6	F2	R124	F5	5	L5	R438	E1	5	A2	R520	F2	5	J5	U90	C1	8	L8
C39	D5	1	B4	C248	F3	7	C2	C338	F3	3	H5	J47	B1	6	A6	R15	F5	6	F1	R125	F5	5	L5	R439	Q2	6	A1	R521	F1	5	J5	U91A	E4	5	K3
C40	E5	1	B5	C249	G2	1	A7	C339	D5	4	O6	J48	D1	6	A2	R16	F4	6	G1	R126	F4	5	L5	R440	G1	6	A1	R522	F1	5	J5	U91B	B2	9	K3
C44	D2	2	F7	C250	F3	1	A8	C340	D5	4	Z6	J49	D1	6	B2	R17	F5	6	G2	R127	F5	5	L5	R441	G3	6	E1	R523	G2	5	J5	VR1	E5	5	K5
C45	D2	2	F7	C251	F3	1	A9	C341	D5	4	N6	J50	B3	6	C6	R22	B1	1	B9	R143	C3	9	M3	R442	G3	6	D1	R519	E2	5	J5	W1	A1	5	I6
C46	G2	2	D8	C252	F2	1	B6	C342	F5	4	M6	J51	B3	6	D6	R23	B2	1	C9	R144	C3	9	M3	R443	E3	6	D2	R520	F2	5	J5	W425	E3	1	B5
C47	G2	2	C8	C253	F2	1	B6	C343	F5	4	L6	J52	D3	6	D2	R24	B3	1	A8	R183	F7	9	E1	R444	E4	6	G2	R521	F1	5	J5	W426	F3	1	B5
C51	G1	2	D7	C254	G2	1	B6	C344	F5	4	H7	J53	D3	6	D2	R25	B3	1	A8	R184	G4	7	C1	R445	G5	6	F1	R522	F1	5	J5	W427	F3	2	D5
C52	G1	2	C8	C255	F3	2	D8	C345	F5	4	G8	J54	B4	6	F6	R26	B3	1	B9	R190	F1	4	M5	R446	G4	6	G1	R523	G2	5	J5	W428	F3	2	D5
C53	E2	2	F7	C256	F3	2	D8	C346	D5	4	F7	J55	B4	6	F6	R27	C3	1	A8	R191	E2	4	M5	R447	A4	7	D1	R524	G1	5	K5	W429	F3	2	D5
C54	D4	2	F4	C257	G5	2	D7	C347	D5	4	F8	J56	D4	6	G2	R28	D3	1	C8	R192	F2	4	N5	R448	A3	7	D1	TP1	D1	4	K3				
C55	D5	2	F4	C258	Q1	2	C7	C348	D5	4	B7	J57	D4	6	G2	R30	E3	1	B5	R193	G2	4	N5	R449	A4	7	D1	TP2	C1	4	K3				
C56	D5	2	F5	C259	F2	2	D6	C349	F5	4	B7	J58	G4	5	K6	R31	E3	1	C5	R194	G3	4	P5	R450	C1	8	L8	TP3	D1	4	P1				
C57	D4	2	F5	C260	F1	2	D6	C350	F5	4	B8	J59	A1	8	L9	R32	F2	1	C5	R195	F3	4	O5	R451	Q2	8	L8	TP4	D2	4	P7				
C58	D5	2	F4	C261	G2	2	D7	C351	F5	4	A8	J60	A2	8	O9	R33	E2	1	B5	R196	E3	4	O5	R452	C3	8	M8	TP5	D4	4	P8				
C59	E5	3	F5	C262	F3	3	G8	C352	F5	4	F7	J61	H1	8	L7	R34	D2	1	B5	R197	E3	4	M4	R453	C4	8	N8	TP6	G1	4	P8				
C63	D2	3	G7	C263	F3	3	F7	C353	F1	5	J5	J62	H2	8	O7	R36	G2	1	A6	R209	D1	6	A2	R454	C5	8	O8	TP7	G3	4	P7				
C64	D3	3	G7	C264	G5	3	F7	C354	F2	5	J5	J63	A4	1	A7	R37	G2	1	A6	R210	F2	6	A2	R455	C1	8	K7	TP8	H2	1	A7				
C65	G2	3	F8	C265	G1	3	G6	C355	F1	5	J5	J64	A3	9	J9	R38	G4	1	A7	R213	F2	6	A1	R456	C2	8	L9	TP9	H1	2	C7				
C66	G2	3	F8	C266	F2	3	G6	C356	G1	5	J5	J65	A4	3	D7	R39	F4	1	A7	R214	F1	6	B1	R457	C2	8	M7	TP10	H1	3	F7				
C70	G1	3	G7	C267	F1	3	G6	C357	G1	5	J6	J66	A4	3	F7	R41	C5	1	B5	R215	F2	6	A2	R458	C4	8	N7	U1	E4	6	G2				
C71	G1	3	G7	C268	G2	3	G7	C358	F1	5	K5	J67	C5	5	K6	R42	C4	1	B5	R228	D3	6	D2	R459	C5	8	N7	U6	E2	1	B5				
C72	E2	3	G7	C269	D4	4	L5	C359	F1	5	J6	J68	A4	1	H7	R43	C5	1	C5	R229	F3	6	E2	R460	E4	9	N3	U7A	B3	1	B7				
C73	D4	3	G4	C270	D4	4	C9	C360	F1	5	I6	J69	A1	9	K1	R44	D5	1	B4	R232	F3	6	E1	R461	E4	9	N2	U7B	C3	1	B7				
C74	D5	3	H4	C271	E4	4	K8	C361	F1	5	K5	J71	H4	8	P9	R45	D5	1	B4	R233	F3	6	E1	R462	D3	9	M4	U7C	D3	1	B7				
C75	C5	3	H5	C272	E4	4	M6	C362	F1	5	K4	J73	G4	9	K2	R46	E5	1	B5	R234	F3	6	E2	R463	D4	9	M3	U8	C1	1	B9				
C76	H4	3	O7	C273	H4	4	O7	C363	A2	5	K4	J75	F3	9	O2	R53	B1	2	E9	R287	E3	8	O9	R464	D4	9	M4	U9	G2	1	A7				
C77	D5	3	G4	C274	C4	5	M6	C364	F5	9	K3	J76	F2	9	O3	R54	B2	2	E9	R288	E3	8	O8	R465	C4	9	M4	U10	D5	1	B4				
C78	E5	3	G5	C275	D4	5	L5	CR3	D2	5	I5	J77	C3	2	F7	R55	B3	2	D8	R311	F4	7	C2	R466	D3	9	M3	U11	F1	2	E5				
C86	D5	5	L4	C276	B2	5	I5	CR4	D1	5	I5	J78	C3	2	F7	R56	B3	2	D8	R355	C1	8	L9	R467	C3	9	N4	U12	F1	2	E5				
C87	F4	5	L5	C282	F1	6	B1	CR5	D1	5	I5	J79	G2	7	H1	R57	B3	2	E9	R356	F3	8	N7	R468	C3	9	M4	U13A	B3	2	D7				
C90	B1	5	H5	C283	F2	6	A1	CR6	D2	5	I5	J80	F3	9	O3	R58	C3	2	D8	R357	F3	8	N7	R469	D3	9	M3	U13B	C3	2	D7				
C93	C1	5	I5	C284	F1	6	A1	CR13	C2	4	O5	J81	F2	9	O2	R60	D3	2	E8	R358	F2	8	M7	R471	C1	9	L2	U13C	D3	2	D7				
C94	C2	5	I5	C285	F4	6	E1	CR14	C3	4	O5	J82	H1	5	K4	R61	E3	2	E5	R359	C5	8	O9	R472	C2	9	L1	U14	C1	2	D9				
C113	H4	5	L3	C286	F3	6	E1	CR15	D4	4	O5	J83	A3	5	I4	R62	E3	2	E5	R362	B1	1	B9	R473	F4	9	K3	U15	C1	2	D9				
C143	B1	4	N5	C287	F3	6	E1	CR16	C4	4	P5	J84	H3	5	I1	R63	D2	2	N5	R363	B2	1	C9	R474	F4	9	K3	U16	G1	2	D7				
C144	C1	4	N4	C288	F4	6	G1	CR17	A1	5	K4	K2	C1	9	L1	R64	D2	2	N5	R364	D1	1	C7	R475	B2	9	M2	U17	D5	2	D7				
C145	C1	4</																																	



**SCHEMATIC DIAGRAM <1>  
OUTPUT BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A3.** Partial Assembly A3 also shown on Schematics 2 through 9.

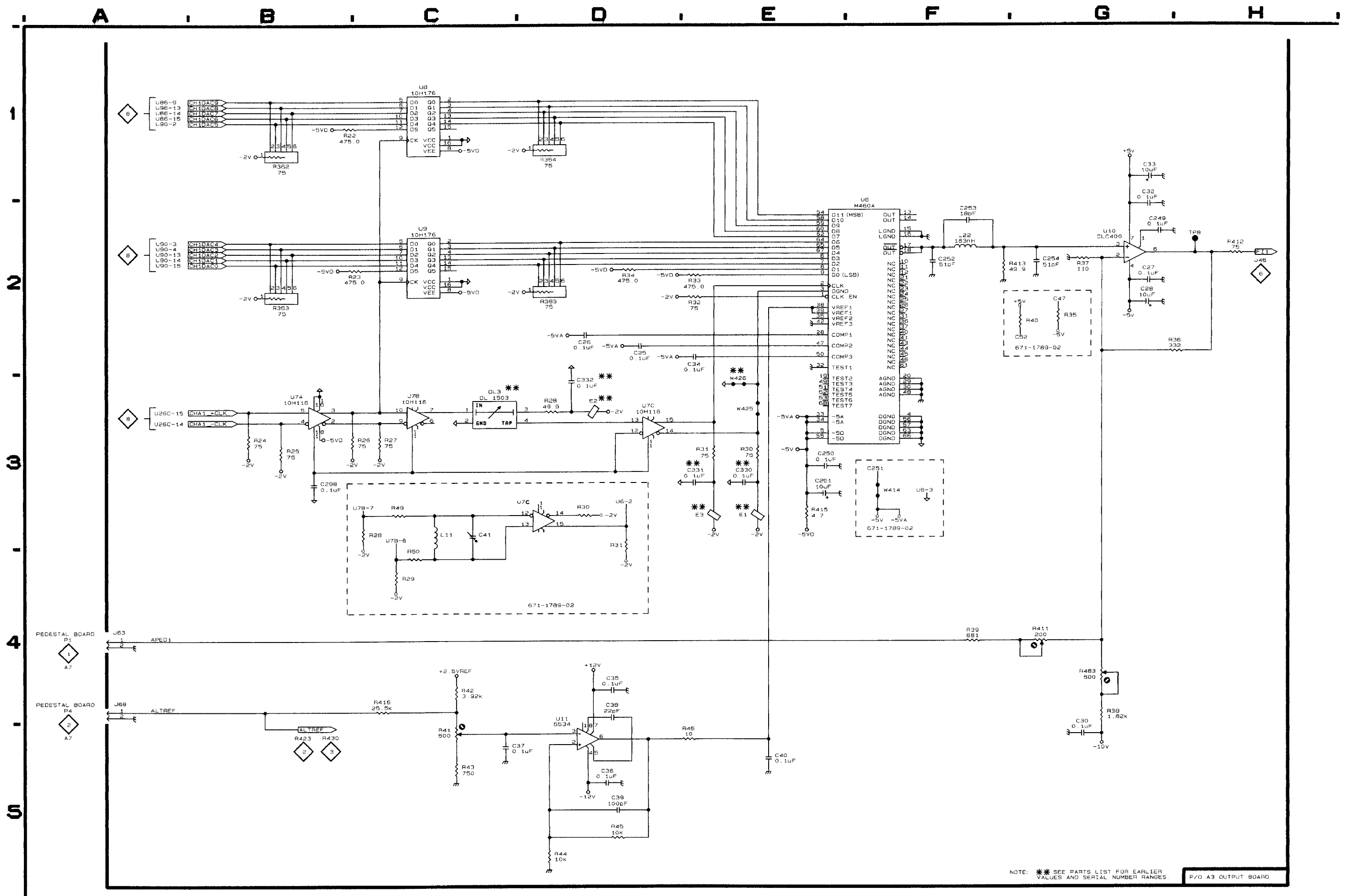
CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C25	D2	C7	R30 *	E3	B5
C26	D2	B7	R31 *	E3	C5
C27	G2	A8	R32	E2	C5
C28	G2	A8	R33	E2	B5
C30	G5	A7	R34	D2	B5
C32	G2	B7	R35 *	G2	A8
C33	G1	A8	R36	G2	A6
C34	E2	C7	R37	G2	A6
C35	D4	C4	R38	G4	A7
C36	D5	B4	R39	F4	A7
C37	C5	C5	R40 *	G2	B7
C38	D4	C5	R41	C5	B5
C39	D5	B4	R42	C4	B5
C40	E5	B5	R43	C5	C5
C41 *	C4	C8	R44	D5	B4
C249	G2	A7	R45	D5	B4
C250	E3	A8	R46	E5	B5
C251	E3	A9	R49 *	C3	B8
C252	F2	B6	R50 *	C4	B8
C253	F2	B6	R362	B1	B9
C254	G2	B6	R363	B2	C9
C298	B3	B8	R364	D1	C7
C330	E3	B5	R365	D2	C7
C331	E3	C5	R411	G4	B7
C332	D3	C8	R412	H2	A6
DL3	C3	B7	R413	F2	B7
E1	E3	B5	R415	E3	A8
E2	D3	C8	R416	C4	B5
E3	E3	C5	R483	G4	A7
J63	A4	A7	TP8	H2	A7
J68	A4	H7	U6	E2	B5
L11 *	C4	B8	U7A	B3	B7
L22	F2	B7	U7B	C3	B7
R22	B1	B9	U7C *	D3	B7
R23	B2	C9	U8	C1	B9
R24	B3	A8	U9	C2	C9
R25	B3	A8	U10	G2	A7
R26	B3	B9	U11	D5	B4
R27	C3	A8	W414 *	F3	B7
R28	D3	C8	W425	E3	B5
R29 *	C4	B8	W426	E3	B5

Static Sensitive Devices  
See Maintenance Section

**A3 OUTPUT Board**

**671-1789-03 & up**

\* See parts list for earlier serial number ranges



## SCHEMATIC DIAGRAM <2> OUTPUT BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A3.** *Partial Assembly A3 also shown on Schematics 1, and 3 through 9.*

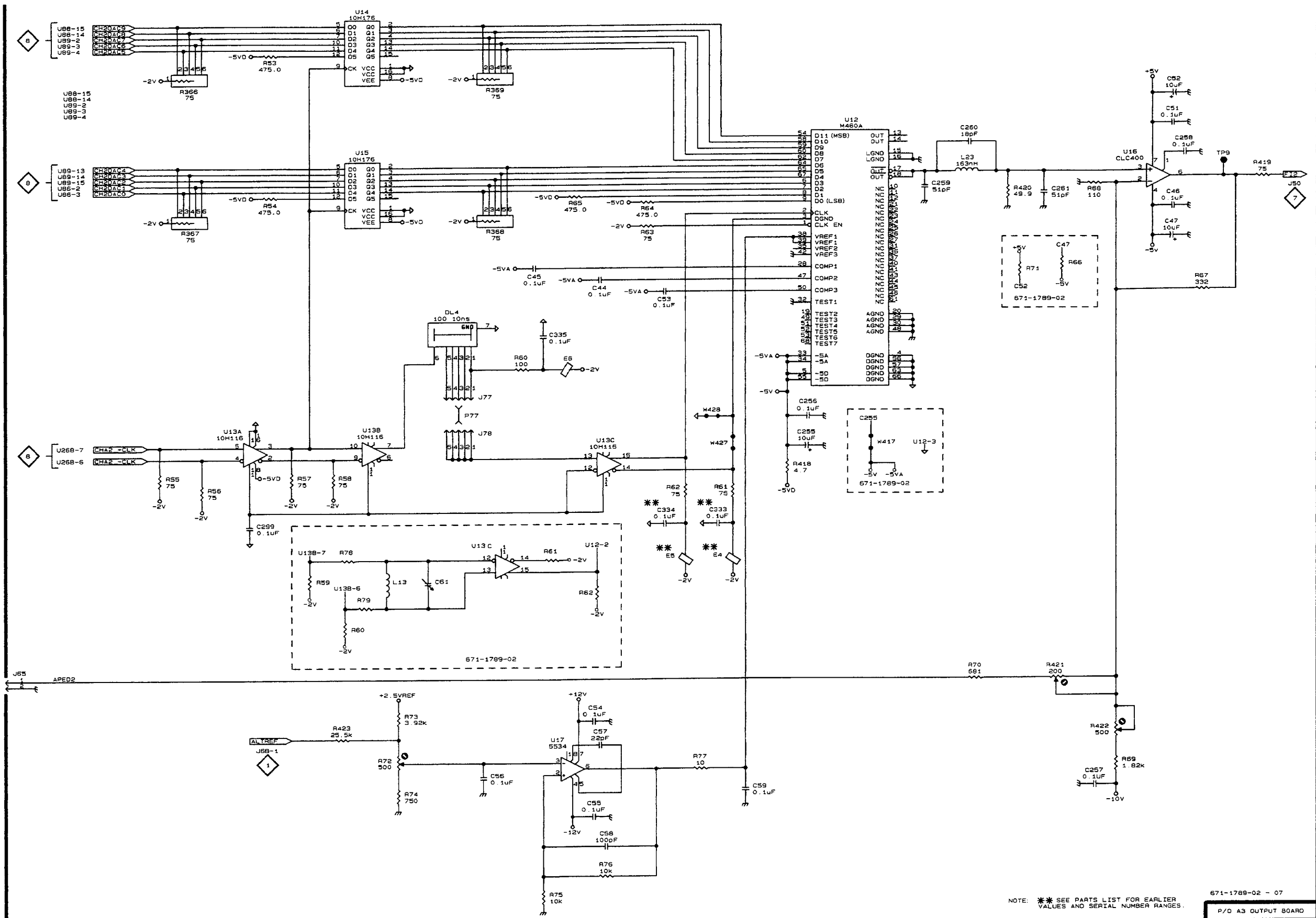
CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C44	D2	E7	R60 *	D3	E8
C45	D2	E7	R61 *	E3	E5
C46	G2	D8	R62 *	E3	E5
C47	G2	C8	R63	D2	E5
C51	G1	D7	R64	D2	E5
C52	G1	C8	R65	D2	E5
C53	E2	E7	R66 *	G2	D8
C54	D4	E4	R67	H2	C6
C55	D5	E4	R68	G2	D6
C56	D5	E5	R69	G5	D7
C57	D4	E5	R70	F4	D7
C58	D5	E4	R71 *	F2	D7
C59	E5	E5			
C61 *	C4	E8	R72	C5	E5
C255	E3	D8	R73	C4	E5
C256	E3	D8	R74	C5	E5
			R75	D5	E4
C257	G5	D7			
C258	G1	C7	R76	D5	D4
C259	F2	D6	R77	E5	E5
C260	F1	D6	R78 *	C4	E8
C261	G2	D7	R79 *	C4	E8
			R366	B1	D9
C299	B3	E8	R367	B2	E9
C333	E3	D5	R368	D2	E7
C334	E3	E5			
C335	D2	F8	R369	D1	E7
			R418	E3	D8
DL4	C2	E7	R419	H2	C6
			R420	F2	D6
E4	E4	E5	R421	G4	D7
E5	E4	F5	R422	G4	C7
E6	D2	E8	R423	C4	E5
J65	A4	D7	TP9	H1	C7
J77	C3	E7			
J78	C3	E7	U12	E1	E5
			U13A	B3	D7
L13 *	C4	F8	U13B	C3	D7
L23	F1	D7	U13C *	D3	D7
			U14	C1	D9
P77	C3		U15	C1	E9
			U16	G1	D7
R53	B1	E9	U17	D5	E4
R54	B2	E9			
R55	B3	D8	W417 *	F3	E7
R56	B3	D8	W427	E3	D5
R57	B3	E9	W428	E3	E5
R58	C3	D8			
R59 *	C4	E5			

\* See parts list for earlier serial number ranges.



A B C D E F G H

1  
2  
3  
4  
5



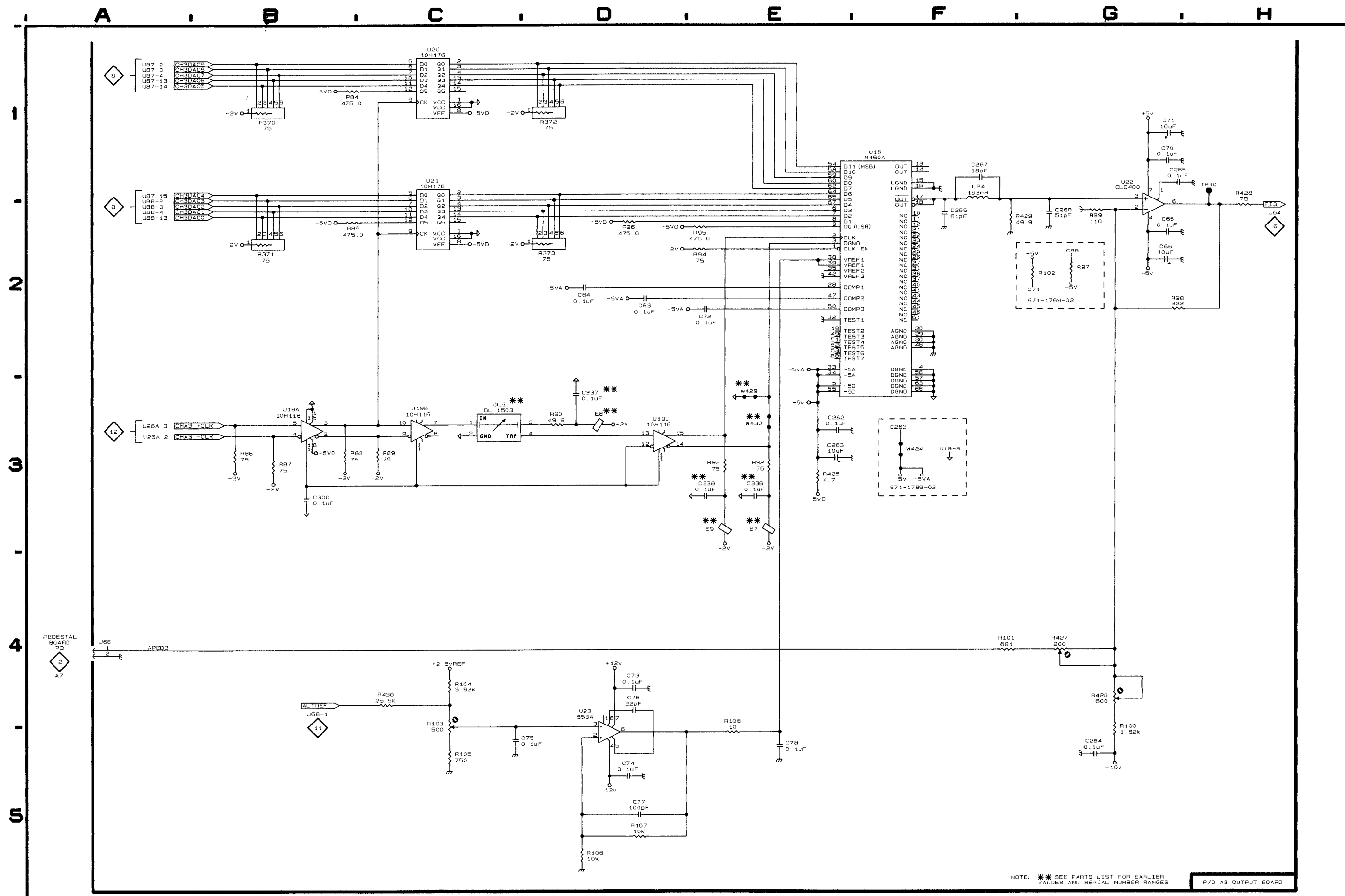
### SCHEMATIC DIAGRAM <3> OUTPUT BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A3.** *Partial Assembly A3 also shown on Schematics 1, 2 and 4 through 9.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C63	D2	G7	R91	C4	H8
C64	D2	G7	R92	E3	G5
C65	G2	F8	R93	E3	H5
C66	G2	F8	R94	E2	H
C70	G1	G7	R95	E2	H5
C71	G1	G7	R96	D2	H5
C72	E2	G7	R97 *	G2	F8
C73	D4	G4	R98	G2	F6
C74	D5	H4	R99	G2	F6
C75	C5	H5	R100	G4	F7
C76	D4	H4	R101	F4	F7
C77	D5	G4	R102 *	F2	G7
C78	E5	G5	R103	C4	G5
C262	E3	G8	R104	C4	G5
C263	E3	F7	R105	C5	H5
C264	G5	F7	R106	D5	G4
C265	G1	G6	R107	D5	G4
C266	F2	G6	R108	E5	G5
C267	F1	G6	R109 *	C4	H8
C268	G2	G7	R110 *	C4	G5
C300	B3	G8	R370	B1	G9
C336	E3	G5	R371	B2	G9
C337	D3	H7	R372	D1	H8
C338	E3	H5	R373	D2	H8
DL5 *	C3	G7	R425	E3	F8
E7 *	E3	G5	R426	G4	F7
E8 *	D3	H7	R427	G4	G7
E9 *	E3	H5	R428	H2	F6
J66	A4	F7	R429	F2	G6
L24	F1	G7	R430	C4	G5
R84	B1	G9	TP10	H1	F7
R85	B2	H9	U18	E1	H5
R86	B3	G8	U19A	B3	G7
R87	B3	G8	U19B	C3	G7
R88	B3	G9	U19C	D3	G7
R89	C3	G8	U20	C1	G9
R90	D3	H7	U21	C1	H9
			U22	G1	F7
			U23	D4	G4
			W429	E3	G6
			W430	E3	G6

\* See parts list for earlier serial number ranges.



NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES  
 P/O A3 OUTPUT BOARD

### SCHEMATIC DIAGRAM < 4 > OUTPUT BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

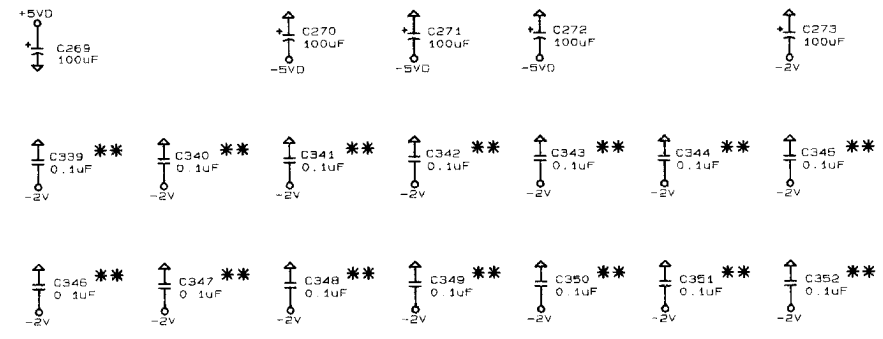
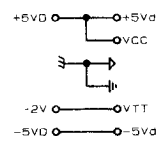
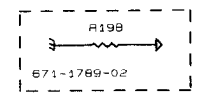
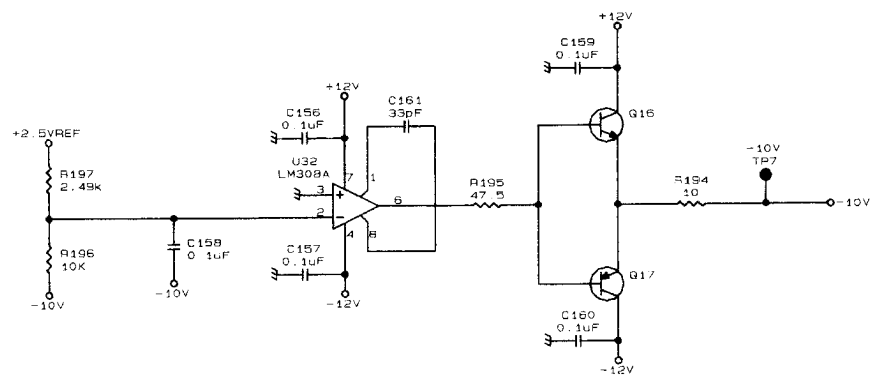
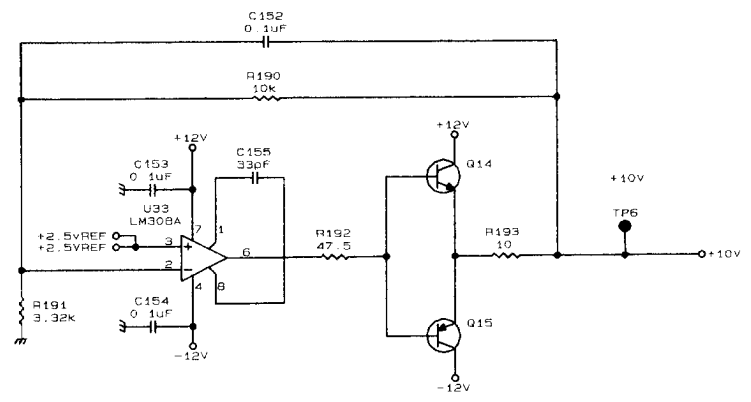
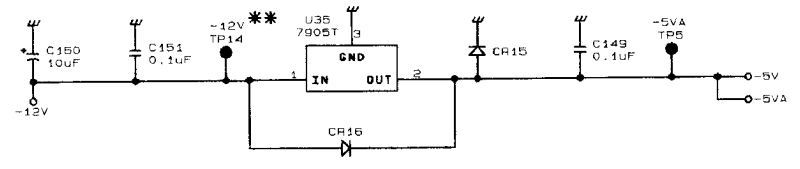
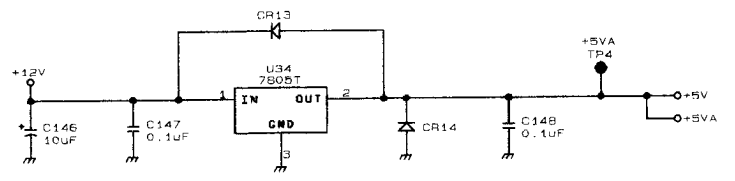
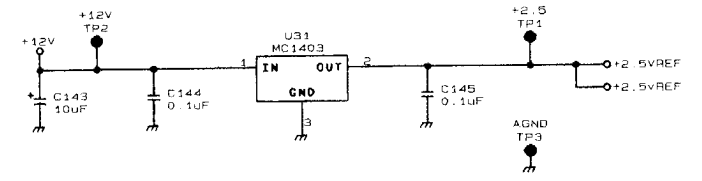
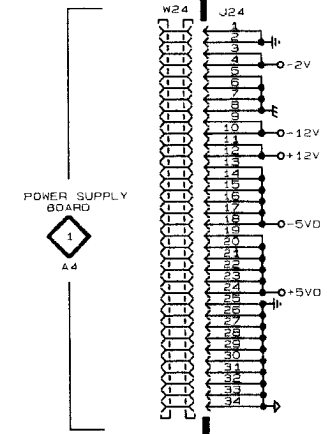
**ASSEMBLY A3.** *Partial Assembly A3 also shown on Schematics 1, 2, 3 and 5 through 9.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C143	B1	N5	C350	E5	B8
C144	C1	N4	C351	E5	A8
C145	C1	M4	C352	F5	F7
C146	B3	O5	CR13	C2	O5
C147	C3	O5	CR14	C3	O5
C148	D3	O5	CR15	D4	O5
C149	D4	P5	CR16	C4	P5
C150	B4	P5	J24	A3	I9
C151	C4	P5	Q14	G1	N5
C152	F1	M5	Q15	G2	N5
C153	F1	N5	Q16	G3	O5
C154	F2	M6	Q17	G3	O6
C155	F1	M5	R190	F1	M5
C156	F3	O5	R191	E2	M5
C157	F3	O6	R192	F2	N5
C158	F3	N5	R193	G2	N5
C159	G2	P5	R194	G3	P5
C160	G3	P5	R195	F3	O5
C161	F3	O5	R196	E3	O5
C269	D4	L5	R197	E3	M4
C270	D4	C9	R198 *	G4	K1
C271	E4	K8	TP1	D1	K3
C272	E4	M6	TP2	C1	K3
C273	F4	O7	TP3	D1	P1
C339	D5	O6	TP4	D2	P7
C340	D5	N6	TP5	D4	P8
C341	D5	N6	TP6	G1	P8
C342	E5	M6	TP7	G3	P7
C343	E5	L6	TP14	C4	J9
C344	E5	H7	U31	C1	M4
C345	F5	G8	U32	F3	O5
C346	D5	E7	U33	F1	M5
C347	D5	E8	U34	C2	N4
C348	D5	B7	U35	C4	P4
C349	E5	B7			

\* See parts list for serial number ranges.

A B C D E F G H

1  
2  
3  
4  
5

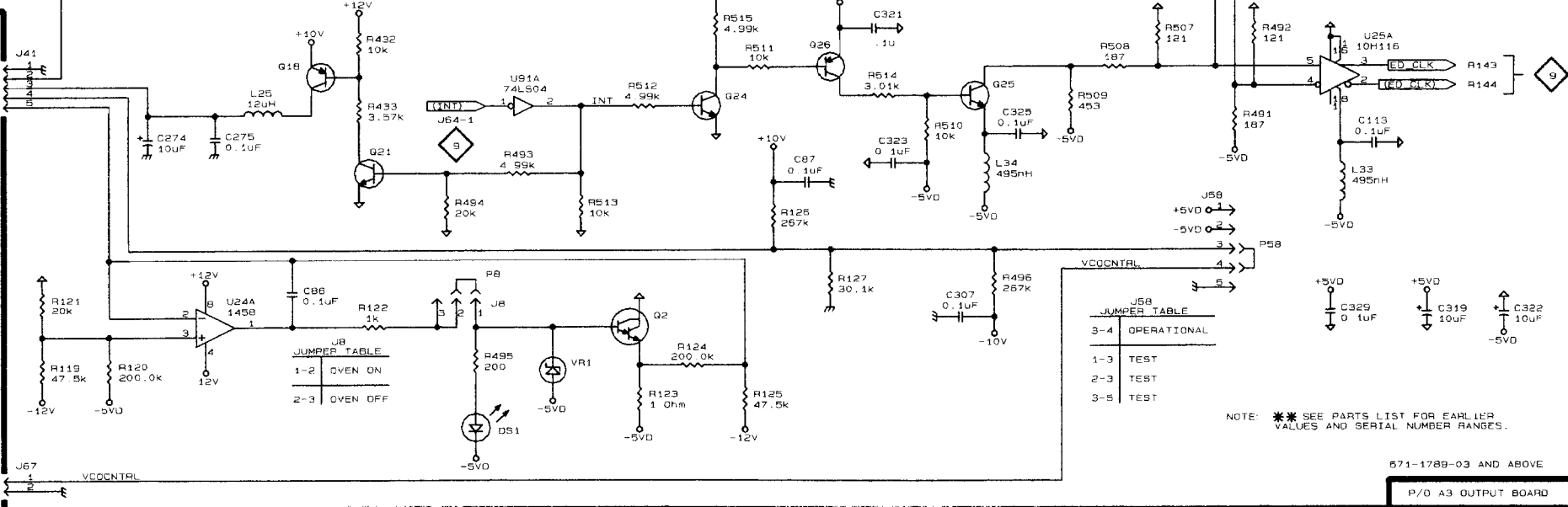
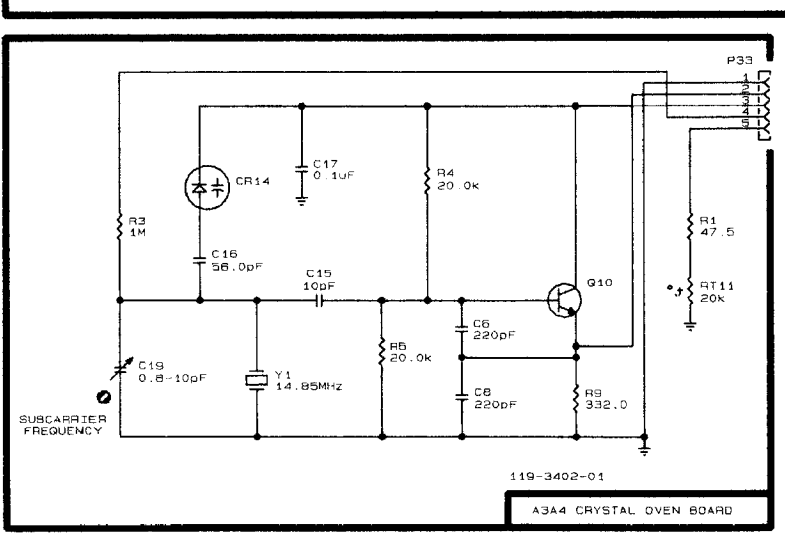
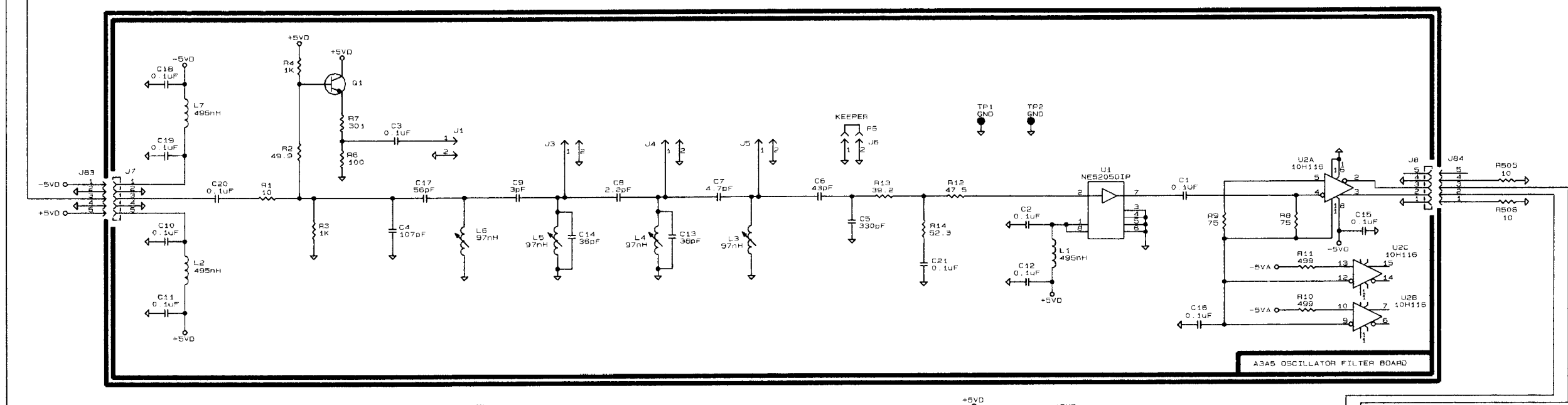
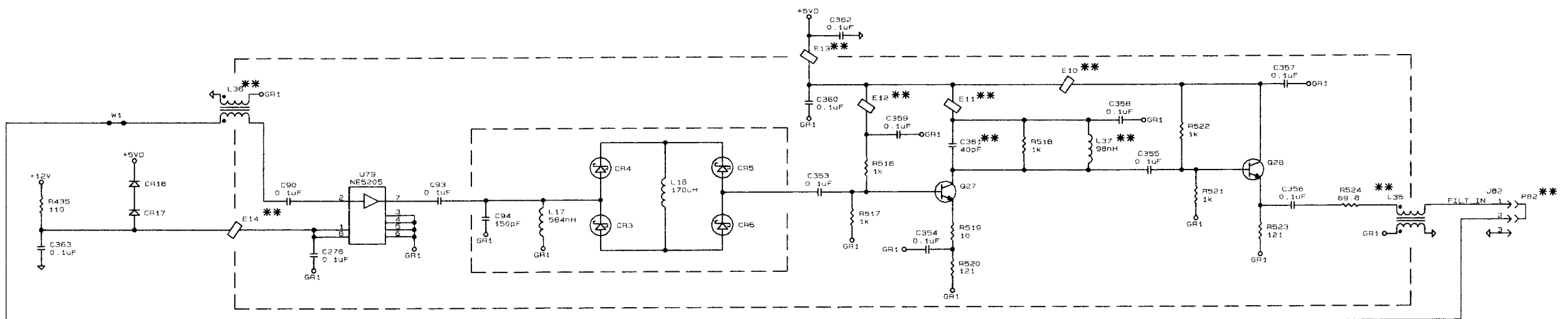


NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/G A3 OUTPUT BOARD



1  
2  
3  
4  
5



J8 JUMPER TABLE

1-2	OVEN ON
2-3	OVEN OFF

J58 JUMPER TABLE

3-4	OPERATIONAL
1-3	TEST
2-3	TEST
3-5	TEST

NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

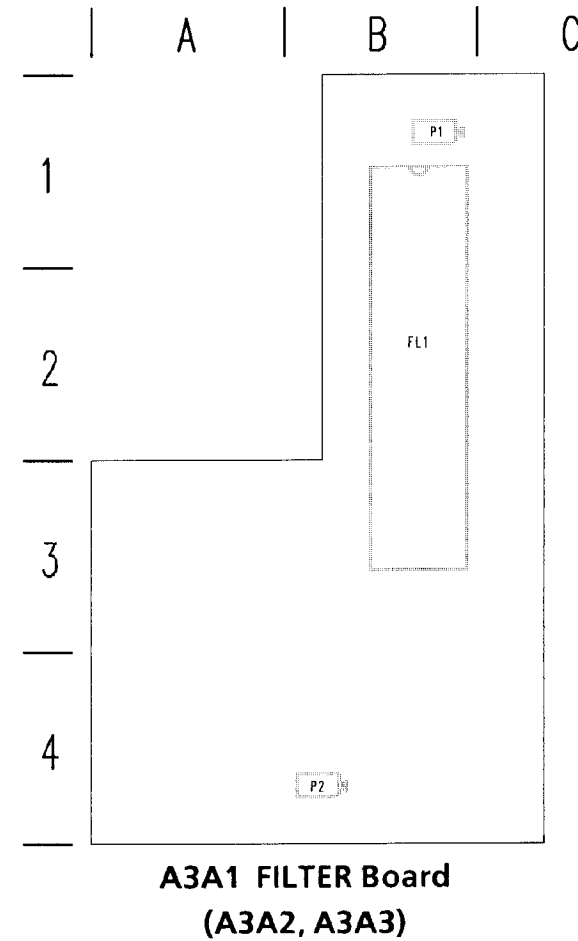
671-1789-03 AND ABOVE

P/O A3 OUTPUT BOARD

### SCHEMATIC DIAGRAM <6> OUTPUT BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A3.** Partial Assembly A3 also shown on Schematics 1 through 5 and 7, 8, 9.



**Static Sensitive Devices**  
See Maintenance Section

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C16	E5	F2	J55	B4	F6	R443	E3	D2
C18	E4	G1	J56	D4	G2	R444	E4	G2
C19	E5	G2	J57	D4	G2	R445	G5	F1
C20	E5	H2				R446	G4	G1
C21	E4	G1	L26	G2	A1			
			L27	G1	A1	TP11	D1	A9
C177	E2	A2	L28	G4	D1	TP12	D3	H1
C179	E1	B1	L29	G3	E1	TP13	D5	F8
C180	E1	B2	L30	G5	F1			
C181	E2	B2	L31	G5	G1	U1	E4	G2
C182	E1	B1				U36	E1	B2
			R11	D5	G2	U40	E3	D2
C200	E4	E2	R12	E5	F2			
C202	E3	F1	R13 *	F4	G1			
C203	E3	F2	R13 *	F4	G1			
C204	E3	F2	R14	F4	H2			
C205	E2	F1	R15	F5	F1			
			R16	F4	G1			
C282	E1	B1	R17	F5	G2			
C283	F2	A1	R209	D1	A2			
C284	F1	A1	R210	E2	A2			
C285	F4	E1	R211 *	F1	B1			
C286	F3	E1	R212 *	F1	B2			
			R213	F2	A1			
C287	E3	E1	R214	F1	B1			
C288	E4	G1	R215	F2	A2			
C289	F5	F1						
C290	F5	G1						
C326	F2	A2	R228	D3	D2			
C327	F3	E2	R229	E3	E2			
C328	F5	G2	R230 *	F2	F1			
			R231 *	F2	F1			
J1	H5	F1	R232	F3	E1			
J2	H4	G1	R233	F3	E1			
J27	H2	A1	R234	F3	E2			
J28	H1	B1						
J34	H3	D1	R438	E1	A2			
			R439	G2	A1			
J35	H3	E1	R440	G1	A1			
J46	B1	A6	R441	G3	E1			
J47	B1	A6	R442	G3	D1			
J48	D1	A2						
J49	D1	B2						
J50	B3	C6						
J51	B3	D6						
J52	D3	D2						
J53	D3	D2						
J54	B4	F6						

A3A1 FILTER BOARD		
FL1	C1	B2
P1	C1	B1
P2	D1	B4

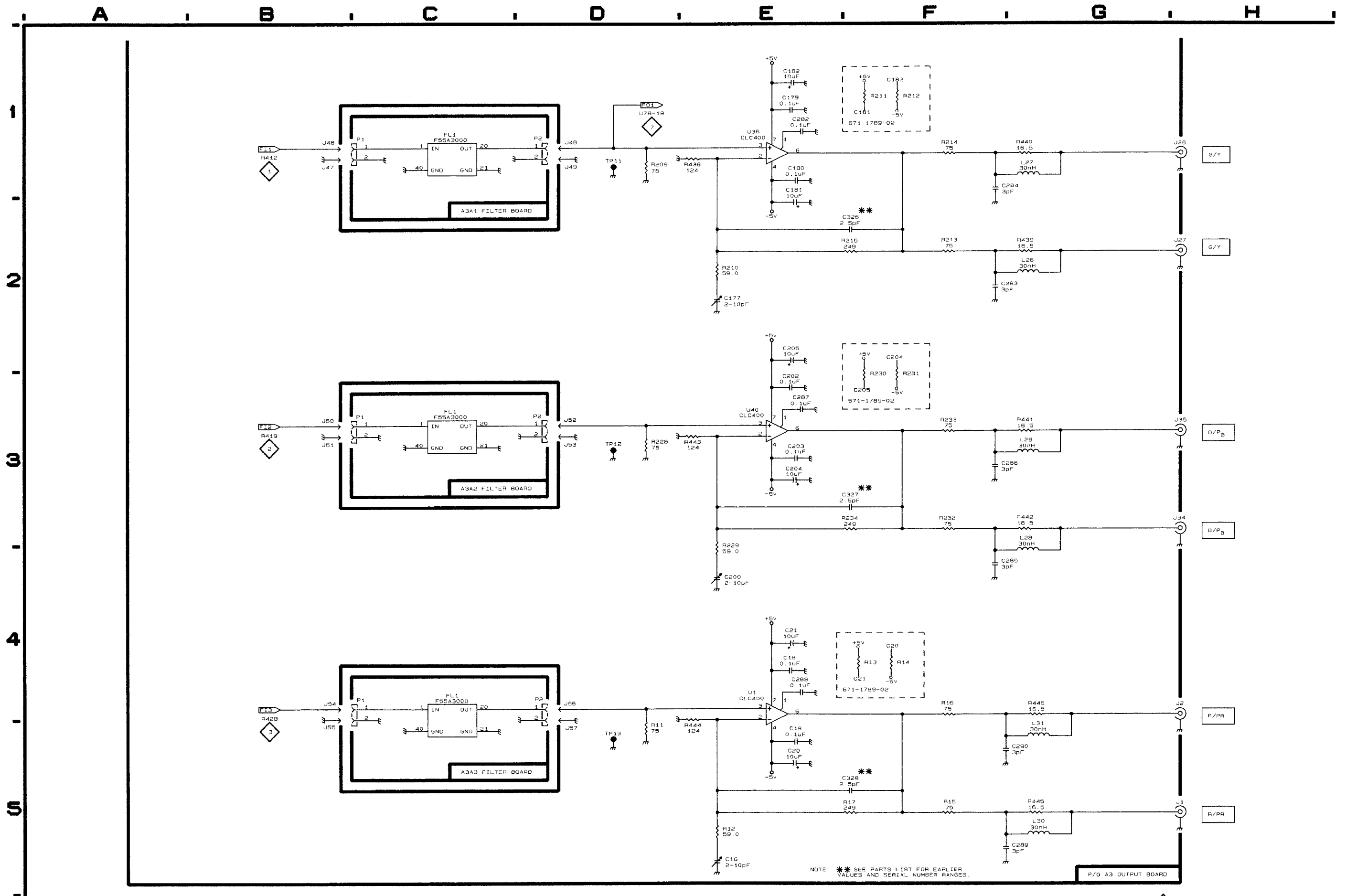
A3A2 FILTER BOARD		
FL1	C3	B2
P1	C3	B1
P2	D3	B4

A3A3 FILTER BOARD		
FL1	C5	B2
P1	C5	B1
P2	D5	B4

\*See parts list for serial number ranges.





NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

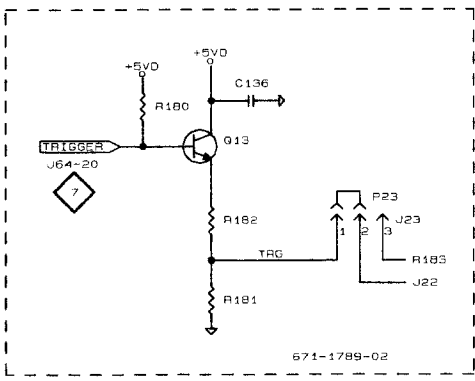
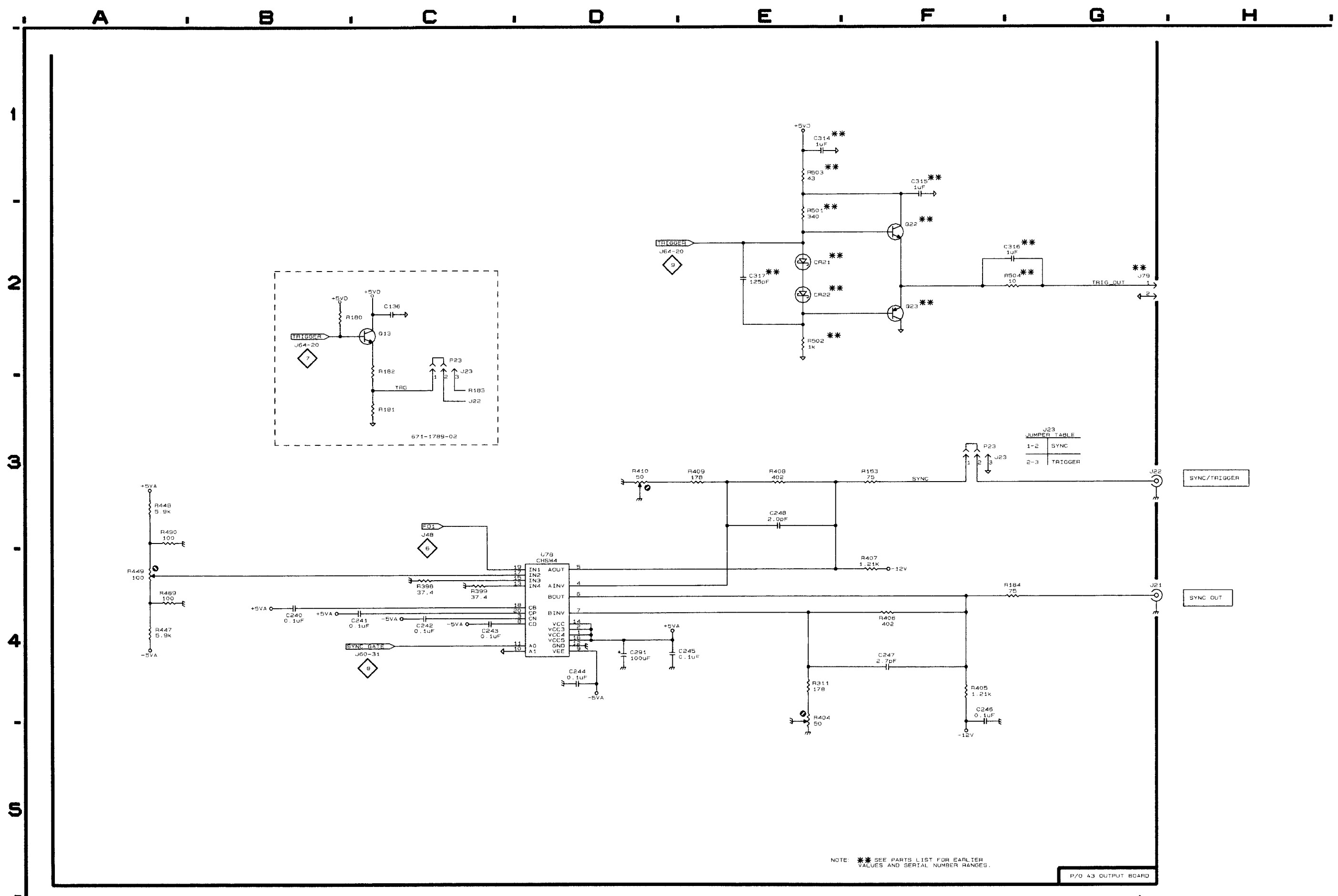
## SCHEMATIC DIAGRAM <7> OUTPUT BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A3.** *Partial Assembly A3 also shown on Schematics 1 through 6 and 8, 9.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C136 *	E1	F1
C240	B4	B1
C241	C4	B1
C242	C4	C2
C243	C4	D1
C244	D4	D2
C245	D4	B2
C246	F4	D2
C247	F4	C2
C248	E3	C2
C291	D4	B1
C314	E1	H2
C315	F1	H3
C316	G2	H2
C317	E2	H4
CR21	E2	H3
CR22	E2	H3
J21	G4	C1
J22	G3	F1
J23	F3	E2
J79	G2	H1
P23	F3	
Q13 *	C2	F1
Q22	F2	H3
Q23	F2	I3
R180 *	B2	F1
R181 *	C2	E1
R182 *	C2	F1
R183	F3	E1
R184	G4	C1
R311	E4	C2
R398	C4	D1
R399	C4	D1
R404	E4	C2
R405	F4	D2
R406	F4	C2
R407	F4	C2
R408	E3	C2
R409	E3	C2
R410	D3	C2
R447	A4	D1
R448	A3	D1
R449	A4	D1
R489	A4	D1
R490	A3	D1
R501	E2	H3
R502	E2	H4
R503	E1	H2
R504	G2	H2
U78	D4	B1

\*See parts list for serial number ranges.



J23 JUMPER TABLE

1-2	SYNC
2-3	TRIGGER

NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A3 OUTPUT BOARD

### SCHEMATIC DIAGRAM <8> OUTPUT & DIGITAL DELAY BOARDS

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

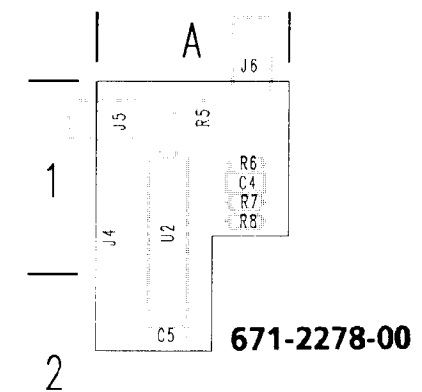
**ASSEMBLY A3.** Partial Assembly A3 also shown on Schematics 1 through 7 and 9.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C234 *	F3	O8	R486	C2	M9
C236	G2	L6	R487	F4	O7
C237	G2	L6	R488	F2	L7
C238	D4	N8			
C295	D1	L8	U70	G2	L6
C296	D2	L8	U71	G3	O6
C297	G3	N6	U72	G3	N6
C301 *	E3	P8	U73	G2	M6
			U74	G1	K6
J59	A1	L9	U77A *	E2	O8
J60	A2	O9	U77B *	F2	O8
J61	H1	L7	U86	C2	L8
J62	H2	O7	U87	C5	O8
J71	H4	P9	U88	C4	N8
			U89	C2	M8
R287	E3	O9	U90	C1	L8
R288	E3	O8			
R355	C1	L9			
R356	F3	N7			
R357	F3	N7			
R358	F2	M7			
R359	C5	O9			
R450	C1	L8			
R451	C2	L8			
R452	C3	M8			
R453	C4	N8			
R454	C5	O8			
R455	C1	K7			
R456	C2	L9			
R457	C2	M7			
R458	C4	N7			
R459	C5	N7			
R484	C3	N9			
R485	C4	N9			

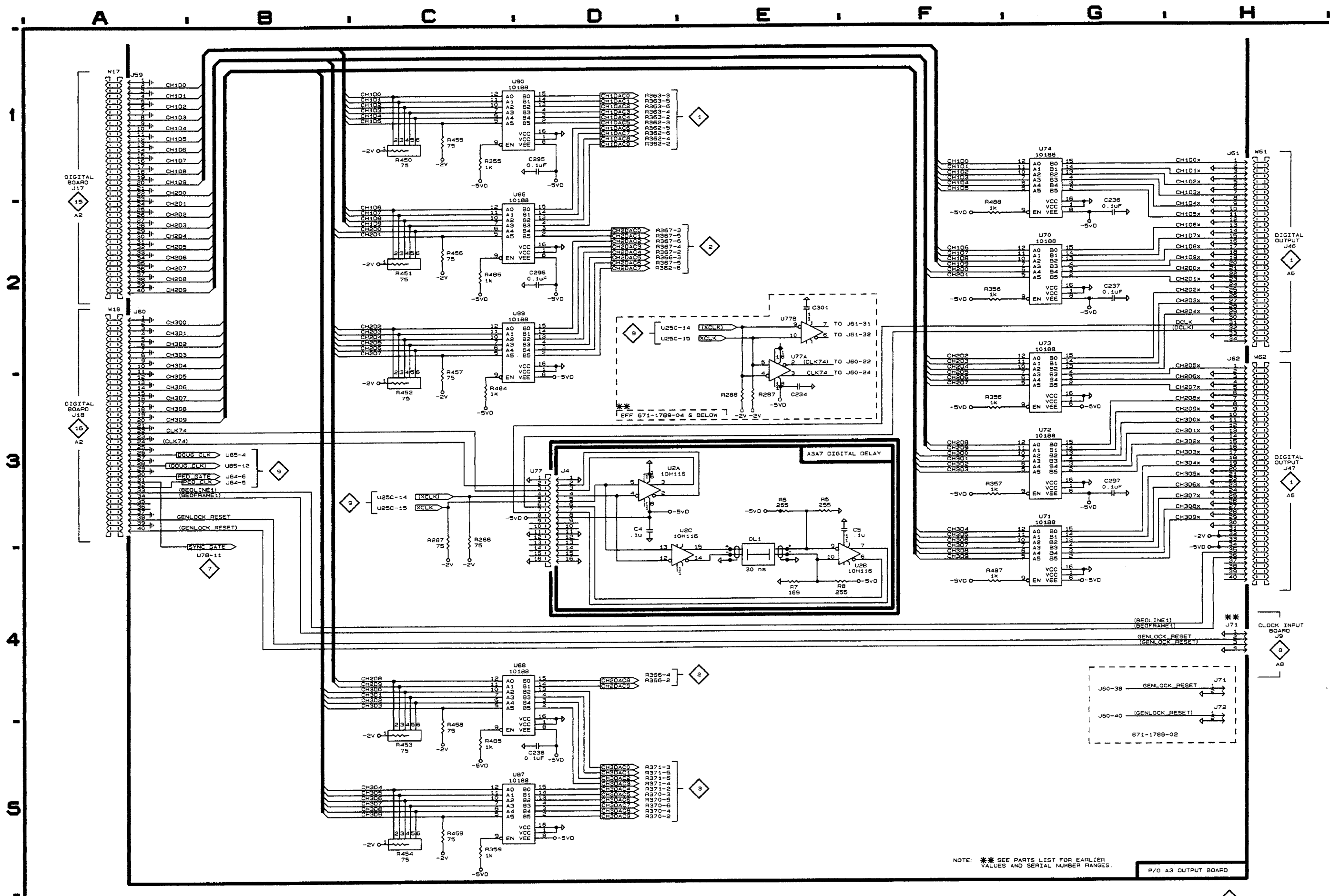
  

A3A7 DIGITAL DELAY		
C4	E4	A1
C5	F3	A2
DL1	E4	J6
J4	D3	A1
R5	E3	A1
R6	E3	A1
R7	E4	A1
R8	F4	A1
U2A	E3	A1
U2B	E4	A1
U2C	E4	A1

\*See parts list for serial number ranges.



**A3A7 DIGITAL DELAY**



TSG 1001

DIGITAL MUX A3

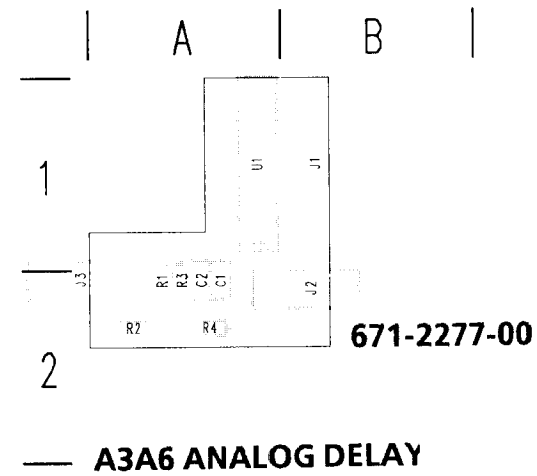
NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES

P/O A3 OUTPUT BOARD

**SCHEMATIC DIAGRAM <9>  
OUTPUT & ANALOG BOARDS  
671-1789-03 & UP**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

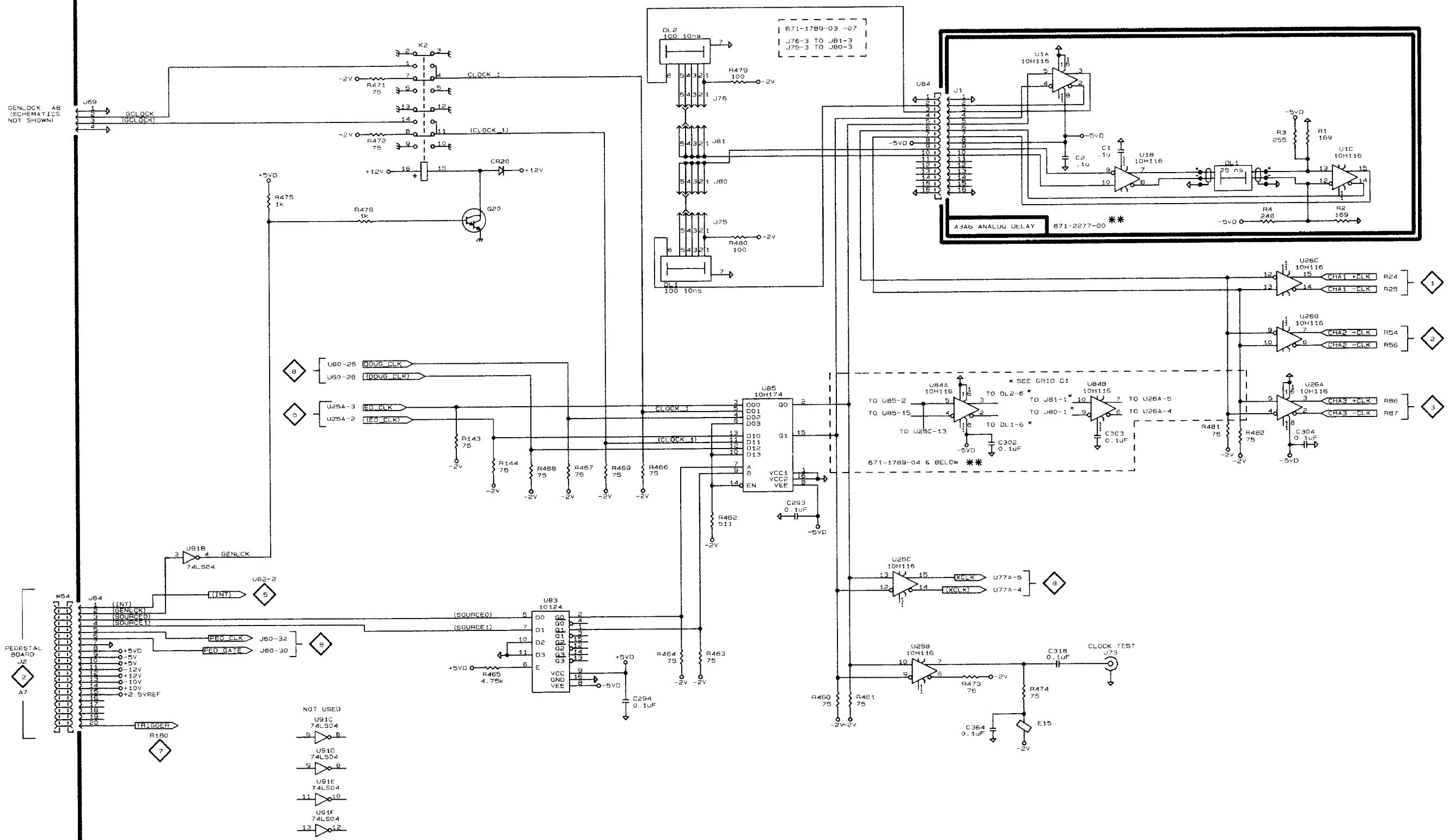
**ASSEMBLY A3.** Partial Assembly A3 also shown on Schematics 1 through 8.



 Static Sensitive Devices  
See Maintenance Section

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
<b>A3 OUTPUT</b>			U83	C4	L3
C293	E3	M3	U84A *	E3	O3
C294	D4	L4	U84B *	G3	O3
C302	E3	N2	U85	E3	M3
C303 *	F3	N2	U91B	B2	K3
C304	G3	N3			
C318	F4	K3			
C364	F5	K3			
CR20	C2	M2	<b>A3A6 ANALOG</b>		
DL1	F3	O2	C1	F2	A2
DL2	F2	O3	C2	F2	A2
E15	F5	K3	DL1	G1	B2
J64	A3	J9	J1	F1	B1
J69	A1	K1	R1	H1	A2
J73	G4	K2	R2	H2	A2
J75	F3	O2	R3	G1	A1
J76	F2	O3	R4	G2	A2
K2	C1	L1	U1A	F1	A1
Q20	C2	M1	U1B	G2	A1
R143	C3	M3	U1C	H2	A1
R144	C3	M3			
R460	E4	N3			
R461	E4	N2			
R462	D3	M4			
R463	D4	M3			
R464	D4	M4			
R465	C4	L4			
R466	D3	M3			
R467	C3	N4			
R468	C3	M4			
R469	D3	M3			
R471	C1	L2			
R472	C2	L1			
R473	F4	K3			
R474	F4	K3			
R475	B2	M2			
R478	C2	M2			
R479	F2	N3			
R480	F3	N2			
R481	G3	N3			
R482	G3	N3			
U25B	E4	M2			
U25C	E4	M2			
U26A	G3	N3			
U26B	G2	N3			
U26C	G2	N3			

\* See parts list for serial number ranges.



NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

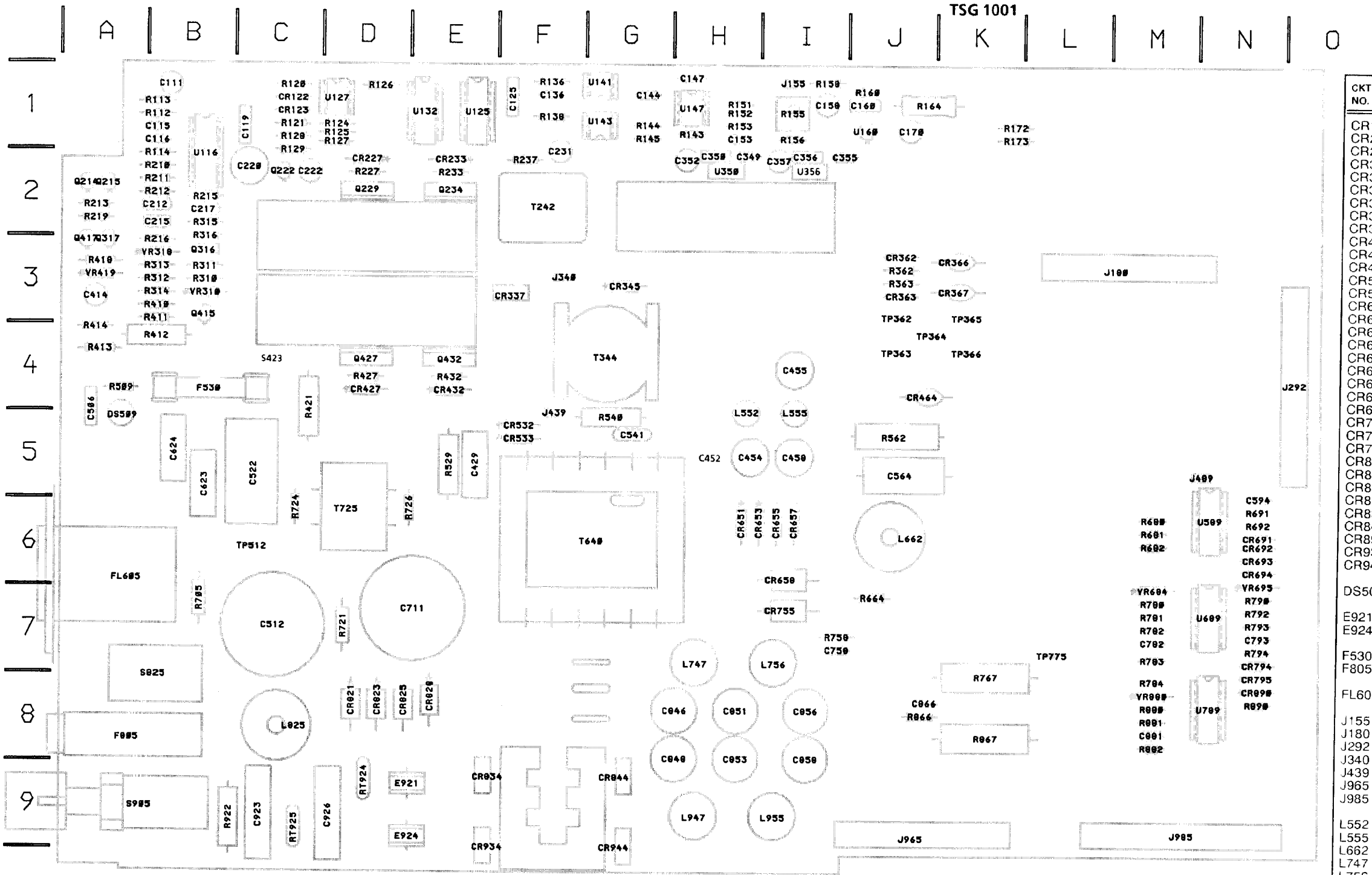


# **A4 POWER SUPPLY**









Static Sensitive Devices  
See Maintenance Section

**A4 POWER SUPPLY Board**

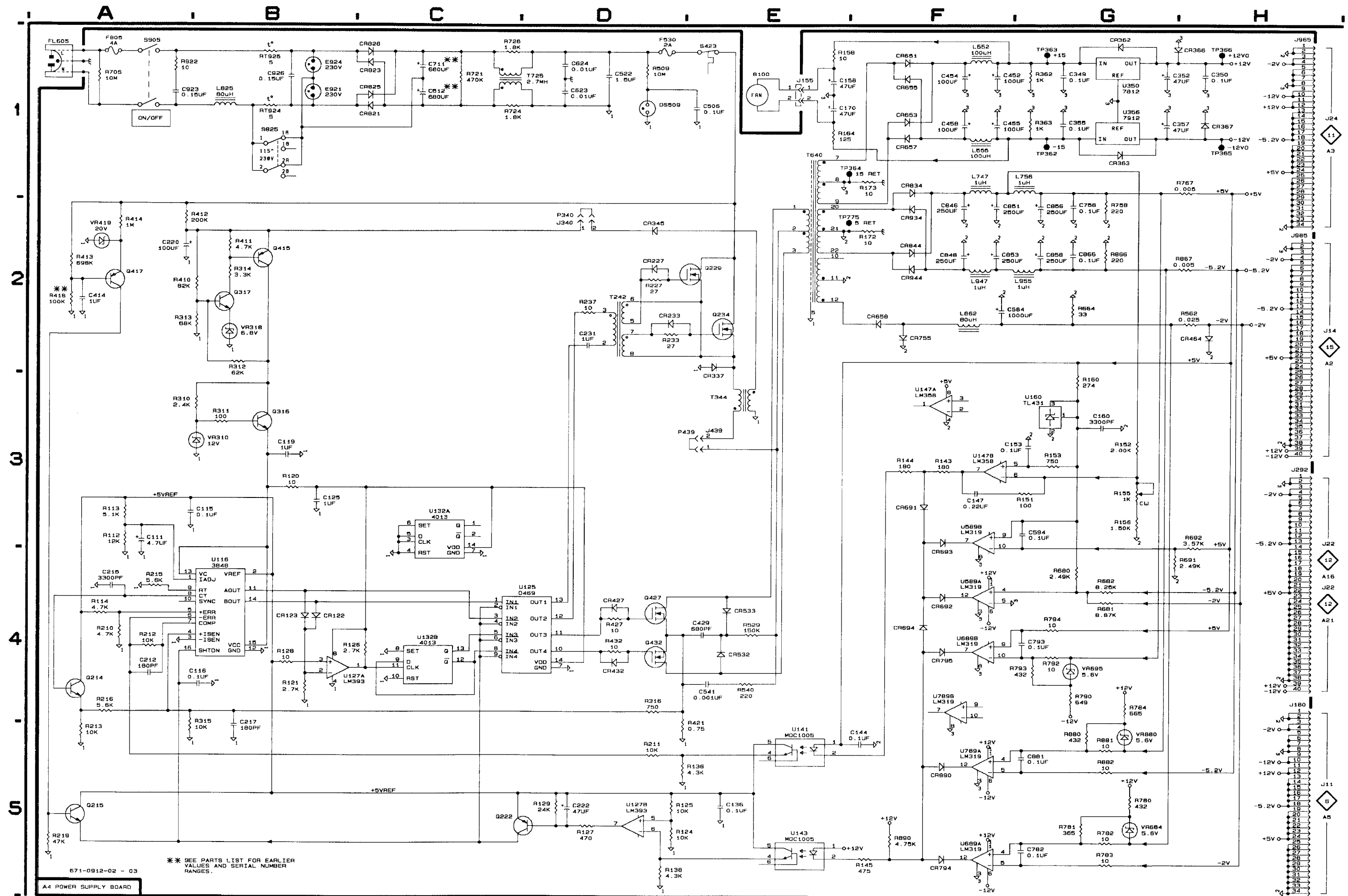
**Schematic Diagram <1> Look-up Chart  
POWER SUPPLY Board**

The schematic diagram has an alpha-numeric grid to assist in locating parts within that diagram. The etched circuit boards follow a numbering sequence starting with the lowest number at the upper left corner, as pictured in this manual.

**ASSEMBLY A4**

CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC
B100	E1		C158	E1	I1	C352	G1	H2	C522	D1	C5	C848	F2	H8
C111	A3	B1	C160	G3	J1	C355	G1	I2	C541	E4	G5	C851	F2	H8
C115	A3	B1	C170	E1	K1	C357	G1	I2	C564	F2	J5	C853	F2	H8
C116	B4	B1	C212	A4	B2	C414	A2	A3	C594	G3	N6	C856	G2	I8
C119	B3	C1	C215	A4	B2	C429	E4	E5	C623	D1	B5	C858	G2	I8
C125	B3	F1	C217	B5	B2	C452	F1	H5	C624	D1	B5	C866	G2	J8
C136	E5	F1	C220	A2	C2	C454	F1	H5	C711	C1	E7	C881	G5	M8
C144	F5	G1	C222	D5	C2	C455	F1	I4	C758	G2	I7	C923	A1	C9
C147	F3	H1	C231	D2	F2	C458	F1	I5	C782	G5	M7	C926	B1	E9
C153	G3	H1	C349	G1	H2	C506	E1	A4	C793	G4	N7			
			C350	H1	H2	C512	C1	C7	C846	F2	H8	CR122	B4	C1

CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	BD LOC
CR123	B4	C1	Q234	E2	E2	R691	G4	N6
CR227	D2	D2	Q316	B3	B3	R692	H3	N6
CR233	D2	E2	Q317	B2	A3	R705	A1	B7
CR337	E2	F3	Q415	B2	B3	R721	C1	D7
CR345	D2	G3	Q417	A2	A3	R724	C1	C6
CR362	G1	J3	Q427	D4	D4	R726	C1	E6
CR363	G1	J3	Q432	D4	E4	R758	G2	I7
CR366	G1	K3				R767	H1	K8
CR367	H1	K3	R112	A3	B1	R780	G5	M7
CR427	D4	D4	R113	A3	B1	R781	G5	M7
CR432	D4	E4	R114	A4	B2	R782	G5	M7
CR464	H2	J4	R120	B3	C1	R783	G5	M7
CR532	E4	F5	R121	B4	C1	R784	G4	M8
CR533	E4	F5	R124	D5	D1	R790	G4	N7
CR651	F1	H6	R125	D5	D1	R792	G4	N7
CR653	F1	H6	R126	C4	D1	R793	G4	N7
CR655	F1	I6	R127	D5	D1	R794	G4	N7
CR657	F1	I6	R128	B4	C1	R866	G2	J8
CR658	F2	I6	R129	D5	C2	R867	H2	K8
CR691	F3	N6	R136	D5	F1	R880	G5	M8
CR692	F4	N6	R138	D5	F1	R881	G5	M8
CR693	F3	N6	R143	F3	H1	R882	G5	M8
CR694	F4	N6	R144	F3	G1	R890	F5	N8
CR755	F2	I7	R145	F5	G1	R922	A1	B9
CR794	F5	N7	R151	G3	H1			
CR795	F4	N8	R152	G3	H1	RT924	B1	C9
CR821	C1	D8	R153	G3	H1	RT925	B1	C9
CR823	C1	D8	R155	G3	I1			
CR825	C1	D8	R156	G3	I1	S423	E1	C4
CR828	C1	E8	R158	E1	I1	S825	B1	B8
CR834	F1	E9	R160	G3	J1	S905	A1	B9
CR844	F2	G9	R164	E1	K1			
CR890	F5	N8	R172	F2	K1	T242	D2	F2
CR934	F2	E9	R173	F1	K1	T344	E3	G4
CR944	F2	G9	R210	A4	B2	T640	E1	G6
			R211	D5	B2	T725	C1	D6
DS509	D1	A5	R212	A4	B2			
			R213	A5	A2	TP362	G1	J3
E921	B1	D9	R215	A4	B2	TP363	G1	J4
E924	B1	D9	R216	A4	B3	TP364	E1	J4
			R219	A5	A2	TP365	H1	K3
F530	D1	B4	R227	D2	D2	TP366	H1	K4
F805	A1	A8	R233	D2	E2	TP775	E2	L7
			R237	D2	F2			
FL605	A1	A6	R310	B3	B3	U116	B4	B2
			R311	B3	B3	U125	C4	E1
J155	E1	I1	R312	B2	B3	U127A	B4	D1
J180	H4	M1	R313	B2	B3	U127B	D5	D1
J292	H3	O4	R314	B2	B3	U132A	C3	E1
J340	D2	F3	R315	A4	B2	U132B	C4	E1
J439	E3	F5	R316	D4	B3	U141	E5	G1
J965	H1	J9	R362	G1	J3	U143	E5	G1
J985	H2	M9	R363	G1	J3	U147A	F3	H1
			R410	B2	B3	U147B	F3	H1
L552	F1	H4	R411	B2	B4	U160	G3	J1
L555	F1	I4	R412	A2	B4	U350	G1	H2
L662	F2	J6	R413	A2	A4	U356	G1	I2
L747	F1	H7	R414	A2	A4	U589A	F4	N6
L756	G1	I7	R418	A2	A3	U589B	F3	N6
L825	B1	C8	R421	D4	C4	U689A	F5	N7
L947	F2	H9	R427	D4	D4	U689B	F4	N7
L955	G2	I9	R432	D4	E4	U789A	F5	N8
			R509	D1	A4	U789B	F4	N8
P340	D2	E4	R529	E4	E5			
P439	E3	E4	R540	E4	G5	VR310	A3	B3
			R562	H2	J5	VR318	B2	B3
			R664	G2	J7	VR419	A2	A3
Q214	A4	A2	R680	G4	M6	VR684	G5	M7
Q215	A5	A2	R681	G4	M6	VR695	G4	N7
Q222	C5	C2	R682	G4	M6	VR880	G5	M8
Q229	D2	D2						







# **A5 CONTROLLER**



TSG 1001

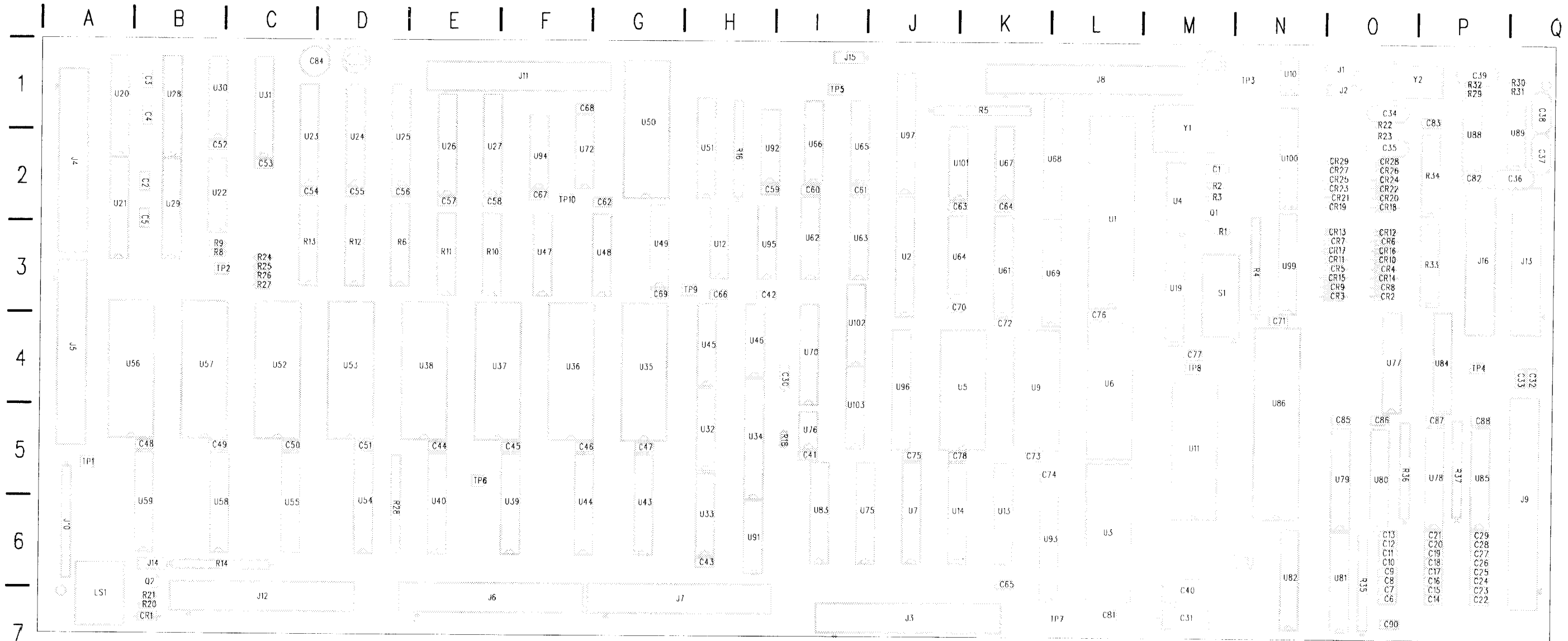
CONTROLLER BOARD

The schematic diagram and circuit board illustration has an alpha-numeric grid to assist in locating parts within that diagram or board. **A5 Assembly**

CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC				
C1	B2	1	M2	C63	A5	6	J2	J8	E1	6	K1	R28B	C5	4	D6	U34	C1	3	I5	U91E	E2	5	I6
C2	B3	2	B2	C64	B5	6	K2	J9	F3	6	Q7	R28C	C5	4	D6	U35	C3	3	G5	U92A	C4	5	I2
C3	B2	2	B1	C65	B5	6	K6	J10	G3	6	A5	R28D	C3	4	D6	U36	C4	3	G5				
C4	B2	2	B1					J11	H3	6	E1	R28E	C5	4	D6	U37	F3	3	F5				
C5	B3	2	B2	C66	B5	6	H3	J12	E3	6	B7	R28F	G4	4	D6	U38	F4	3	E5	U93	E3	1	L6
				C67	C5	6	F2					R29	G3	7	P1	U39	E3	3	F6	U94A	D2	2	F2
C6	A1	7	O7	C68	C5	6	F1	J13	G1	6	Q4	R30	G3	7	Q1	U40	E4	3	E6	U95	A1	3	I3
C7	A1	7	O6	C69	D5	6	G3	J14	G1	7	B6	R31	G3	7	Q1	U41	G4	3	C2	U96A	G4	3	J5
C8	A1	7	O6	C70	D5	6	J4	J15	C2	5	J1					U43	B4	3	G6	U96B	G4	4	J5
C9	A1	7	O6					J16	H1	6	P2	R32	G4	7	P1	U44	B3	3	G6				
C10	A2	7	O6	C71	D5	6	N4	J17	E4	1	N6	R33	B3	7	P3	U45	B2	3	H4	U97	B1	5	J2
				C72	E5	6	J4	LS1	H1	7	A6	R34	F4	7	P2	U46	G1	3	I4	U99	C3	7	N3
C11	A2	7	O6	C73	E5	6	K5					R35	B1	7	O7					U100	D4	7	N2
C12	A2	7	O6	C74	A5	6	K5					R36	B1	7	O6					U101A	D4	7	K2
C13	A2	7	O6	C75	B5	6	J5					R37	B2	7	P6					U102	F2	5	I4
C14	A2	7	P7																	U103	H2	5	I4
C15	A2	7	P6	C76	B5	6	L3					S1	C1	1	N4								
C16	A3	7	P6	C77	C5	6	M4	P1	B1	1						U47	A1	4	F3				
C17	A3	7	P6	C78	C5	6	J5	P2	A1	1						U48	A2	4	G3				
C18	A3	7	P6	C81	B5	6	L7	P14	G1	7						U49	A2	4	H3				
C19	A3	7	P6					P15	C2	5						U50	C1	4	G2				
C20	A3	7	P6					P17	E4	1						U51	D1	4	H2				
				C82	F5	6	P2	Q1	B2	1	M2	TP1	F5	6	A5					U52	D3	4	C5
C21	A3	7	P6	C83	G5	6	P1	Q2	H1	7	B6	TP2	F5	6	C3					U53	D4	4	D5
C22	A3	7	P7	C84	F5	6	C1					TP3	G5	6	N1					U54	B4	4	D6
C23	A4	7	P6	C85	D5	6	O5	R1	B2	1	M3	TP4	G5	6	P4					U55	B3	4	C6
C24	A4	7	P6	C86	D5	6	O5	R2	B2	1	M2	TP5	G5	6	I1								
C25	A4	7	P6	C87	D5	6	P5	R3	B2	1	M2	TP6	F5	6	E5					U56	F3	4	B5
C26	A4	7	P6	C88	E5	6	P5	R4	D1	1	N3	TP7	F5	6	L7					U57	F4	4	C5
C27	A4	7	P6	C90	E5	6	O7	R5A	D3	2	J1	TP8	G5	6	M4					U58	E4	4	C6
								R5B	C3	1	J1	TP9	G5	6	I4					U59	E3	4	B6
				CR1	H1	7	B7	R5C	E3	7	J1	TP10	G5	6	F2					U60	H2	5	K3
C28	A4	7	P6	CR2	B4	7	O3	R5D	E3	7	J1	U1	C2	1	M3					U61	E2	5	K3
C29	A5	7	P6	CR3	B4	7	O3	R5E	D5	1	J1	U2	G2	5	J3					U62	C3	5	I3
C30	F1	7	I5	CR4	B5	7	O3					U3	E3	1	M6					U63	C3	5	J3
C31	F1	7	M7	CR5	B5	7	O3	R5F	E3	7	J1	U4A	B2	1	M2					U64	C4	5	J3
C32	A5	7	Q4	CR6	C4	7	O3	R5H	B3	1	J1	U4B	A2	1	M2					U65	B3	5	J2
								R5I	B3	7	J1	U4C	E1	7	M2								
C33	A5	7	Q4	CR7	C4	7	O3	R6	G3	2	E3	U4E	E2	7	M2					U66	B3	5	I2
C34	G2	7	O1	CR8	B4	7	O3	R8	A4	2	B3	U5	F1	1	K5					U68	D3	5	L2
C35	G2	7	O2	CR9	B4	7	O3					U6	E5	1	M5					U67A	F3	5	K2
				CR10	C5	7	O3	R9	B4	2	B3	U7	F5	1	J6					U67B	F3	5	K2
C36	G2	7	Q2	CR11	C5	7	O3	R11	G2	2	E3	U9	F2	1	L5					U69	D5	5	L3
C37	G3	7	Q2					R12	G4	2	D3	U10	B1	1	N1								
C38	G3	7	Q1	CR12	C4	7	O3	R13	G5	2	D3	U11	E4	1	N6					U70	F1	5	I4
C39	G4	7	P1	CR13	C4	7	O3	R14A	C5	3	C6	U12C	G5	4	H3					U72C	E3	7	G2
C40	F1	7	M7	CR14	B5	7	O3													U75	D1	7	J6
				CR15	B5	7	O3	R14B	C3	3	C6	U12F	G3	6	H3					U76	G1	7	I5
C41	A4	6	I5	CR16	C5	7	O3	R14C	C5	3	C6	U13	F3	1	K6								
C42	B4	6	H3	CR17	C5	7	O3	R14D	G4	3	C6	U14	F4	1	K6					U77	C2	7	O4
C43	B4	6	H6	CR18	F4	7	O2	R14E	A1	3	C6	U19	E2	1	M4					U78	B2	7	P6
C44	B4	6	E5					R14G	C5	3	C6	U20	C2	2	B2					U79	C2	7	O6
C45	C4	6	F5	CR19	F4	7	O2													U80	B2	7	O6
				CR20	E4	7	O2	R14H	B1	3	C6	U21	C3	2	B3					U81	B1	7	O7
C46	C4	6	F5	CR21	E5	7	O2	R14I	G1	3	C6	U22A	B4	2	C2					U82	C1	7	N7
C47	D4	6	G5	CR22	F5	7	O2	R16A	B2	5	H2	U22B	B4	2	C2					U83	E3	7	I6
C48	D4	6	B5	CR23	F5	7	O2	R16G	G3	5	H2	U22C	C4	2	C2								
C49	D4	6	B5					R16H	F1	5	H2	U23	F5	2	D2								
C50	E4	6	C5	CR24	E5	7	O2													U84	C3	7	P4
C51	E4	6	D5	CR25	E5	7	O2	R16I	A2	5	H2	U24	F4	2	D2					U85	B3	7	P6
C52	A5	6	B2	CR26	E3	7	O2	R18	F1	7	I5	U25	F3	2	E2					U86	E2	7	N6
C53	B5	6	C2	CR27	E4	7	O2	R20	F1	7	B7	U26	F2	2	E2					U88A	G2	7	P2
				CR28	E4	7	O2	R21	G1	7	B7												
				CR29	E5	7	O2	R22	F2	7	O1												
C54	B5	6	C2									U27	F2	2	F2					U88B	G3	7	P2
C55	B5	6	D2	J1	B1	1	O1	R23	F2	7	O2	U28	D2	2	B2					U88C	G4	7	P2
C56	C5	6	D2	J2	A1	1	O1	R24	D4	3	C3	U29	D3	2	B3					U89A	G3	7	Q2
C57	C5	6	E2	J3	F1	6	I7	R25	F4	3	C3									U89B	G3	7	Q2
C58	D5	6	E2	J4	B3	6	A1	R26	D4	4	C3	U30	D4	2	C1					U89C	G4	7	Q2
C59	D5	6	H2	J5	C3	6	A3	R26	D4	4	C3	U31	C4	2	C2					U89D	G3	7	Q2
C60	D5	6	I2	J6	C1	6	E7	R27	F4	4	C3	U32	B2	3	H5					U91B	E2	5	I6
C61	E5	6	I2	J7	B1	6	G7	R28A	A1	4	D6	U33	B1	3	H6					U91C	E1	5	I6
C62	E5	6	G2																				

\*\*See parts list for earlier serial number ranges.





⊗ Static Sensitive Devices  
See Maintenance Section

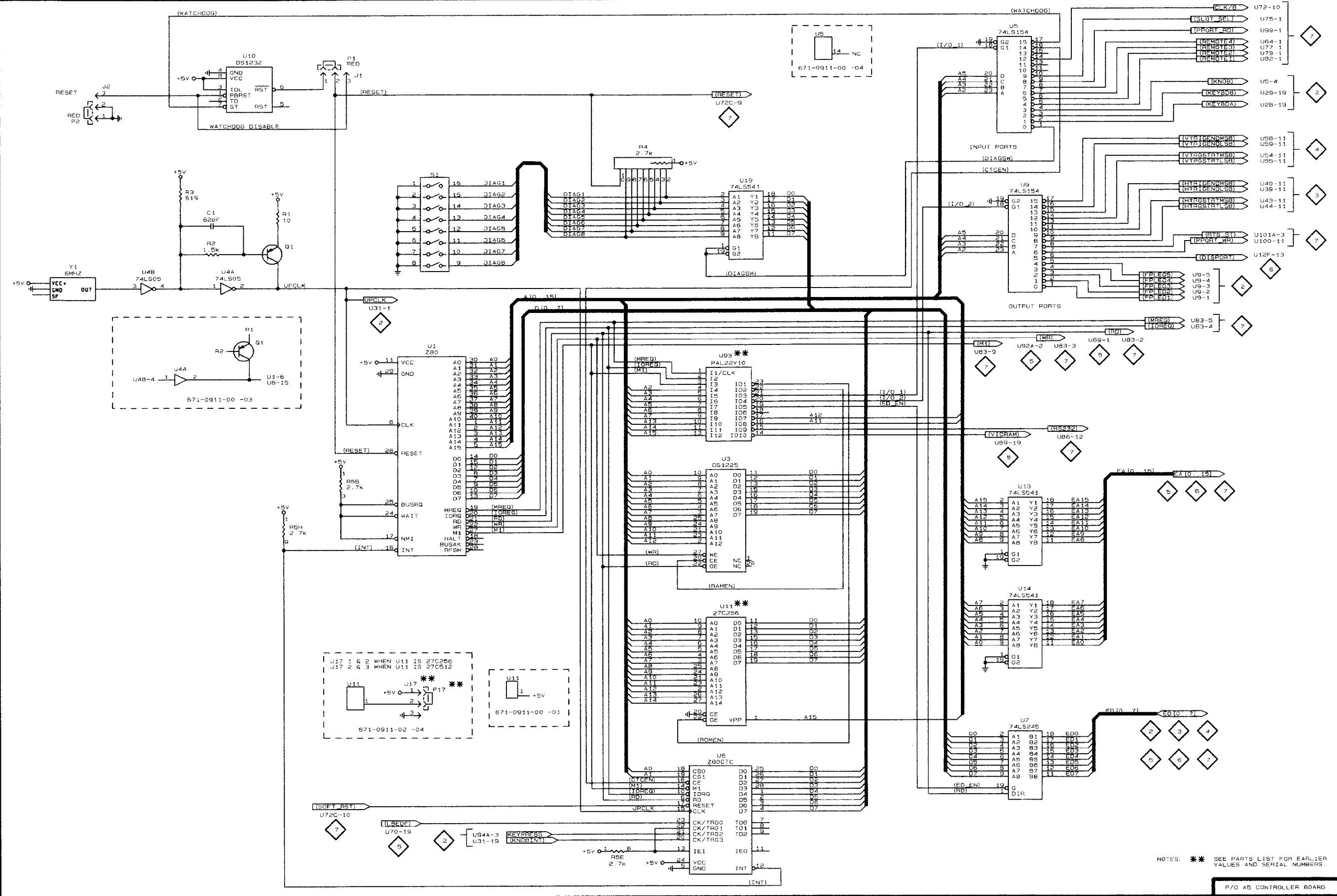
**A5 CONTROLLER Board**

**SCHEMATIC DIAGRAM <1>  
CONTROLLER BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A5.** Partial Assembly A5 also shown on Schematics 2 through 7.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C1	B2	M2	S1	C1	N4
J1	B1	O1	U1	C2	M3
J2	A1	O1	U3	E3	M6
J17	E4	N6	U4A	B2	M2
			U4B	A2	M2
P1	B1		U5	F1	K5
P2	A1		U6	E5	M5
P17	E4		U7	F5	J6
			U9	F2	L5
Q1	B2	M2	U10	B1	N1
R1	B2	M3	U11	E4	N6
R2	B2	M2			
R3	B2	M2	U13	F3	K6
R4	D1	N3	U14	F4	K6
R5B	C3	J1	U19	E2	M4
R5E	D5	J1	U93	E3	L6
R5H	B3	J1	Y1	A2	N1



NOTES: \* \* \* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBERS.

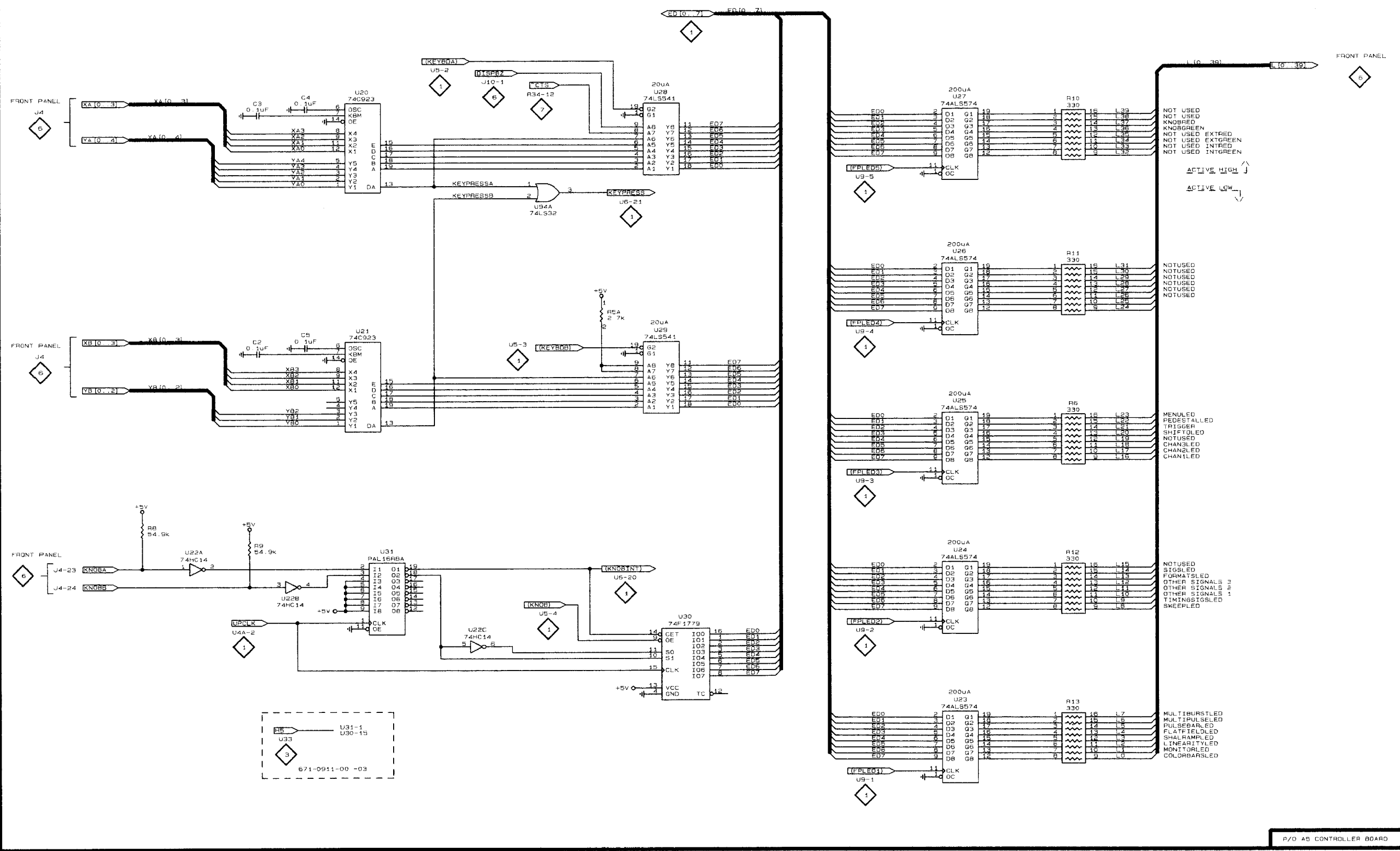
P/O A5 CONTROLLER BOARD

**SCHEMATIC DIAGRAM <2>  
CONTROLLER BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1, 3 through 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C2	B3	B2
C3	B2	B1
C4	B2	B1
C5	B3	B2
R5A	D3	J1
R6	G3	E3
R8	A4	B3
R9	B4	B3
R10	G2	F3
R11	G2	E3
R12	G4	D3
R13	G5	D3
U20	C2	B2
U21	C3	B3
U22A	B4	C2
U22B	B4	C2
U22C	C4	C2
U23	F5	D2
U24	F4	D2
U25	F3	E2
U26	F2	E2
U27	F2	F2
U28	D2	B2
U29	D3	B3
U30	D4	C1
U31	C4	C2
U94A	D2	F2



U31-1  
U30-15  
671-0911-00 -03

### SCHEMATIC DIAGRAM <3> CONTROLLER BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

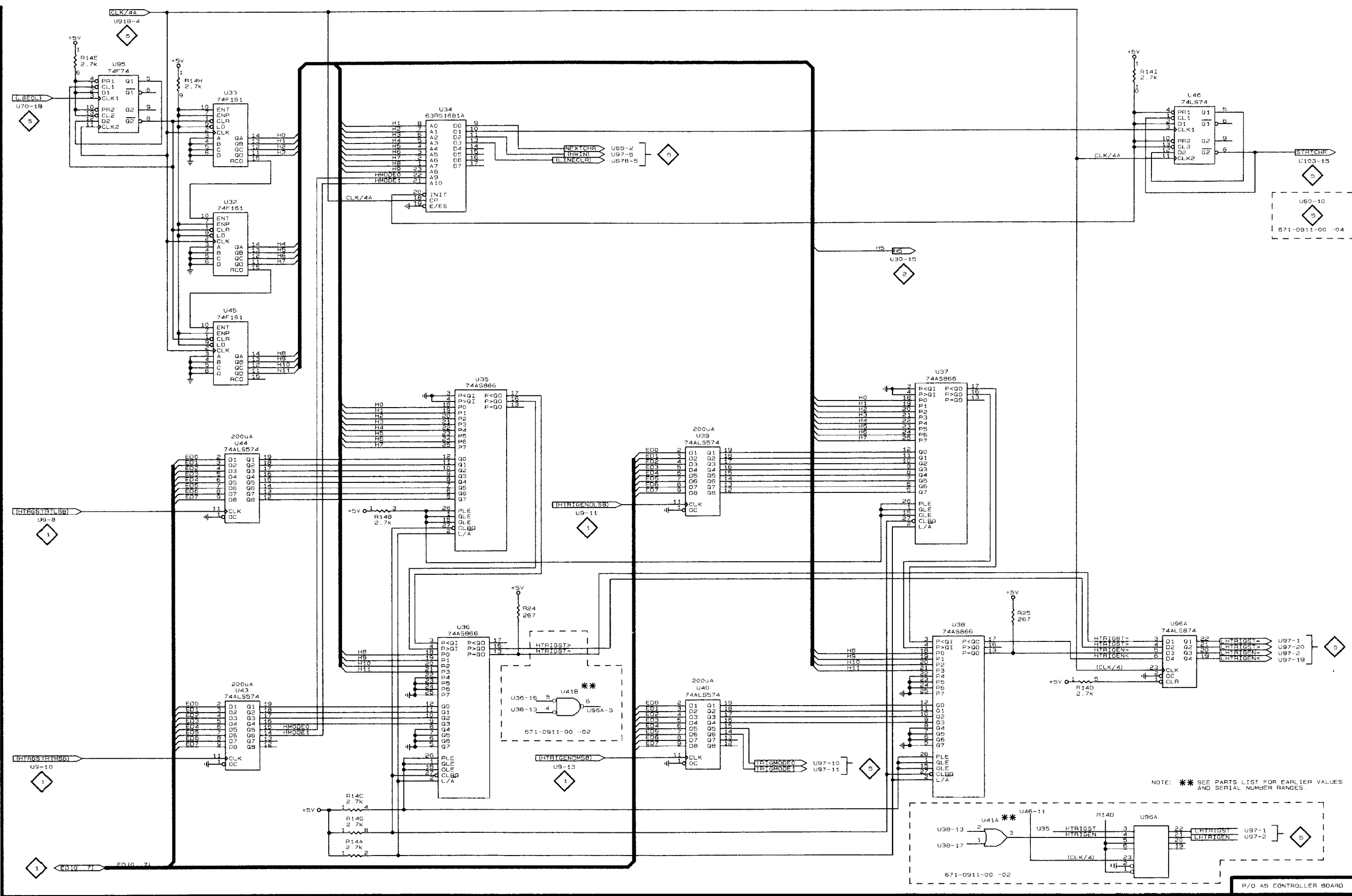
**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1, 2, 4 through 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R14A	C5	C6
R14B	C3	C6
R14C	C5	C6
R14D	G4	C6
R14E	A1	C6
R14G	C5	C6
R14H	B1	C6
R14I	G1	C6
R24	D4	C3
R25	F4	C3
U32	B2	H5
U33	B1	H6
U34	C1	I5
U35	C3	G5
U36	C4	G5
U37	F3	F5
U38	F4	E5
U39	E3	F6
U40	E4	E6
U41A **	G5	C2
U41B **	C4	C2
U43	B4	G6
U44	B3	G6
U45	B2	H4
U46	G1	I4
U95	A1	I3
U96A	G4	J5

**\*\* See parts lists for earlier  
serial number ranges.**

A B C D E F G H

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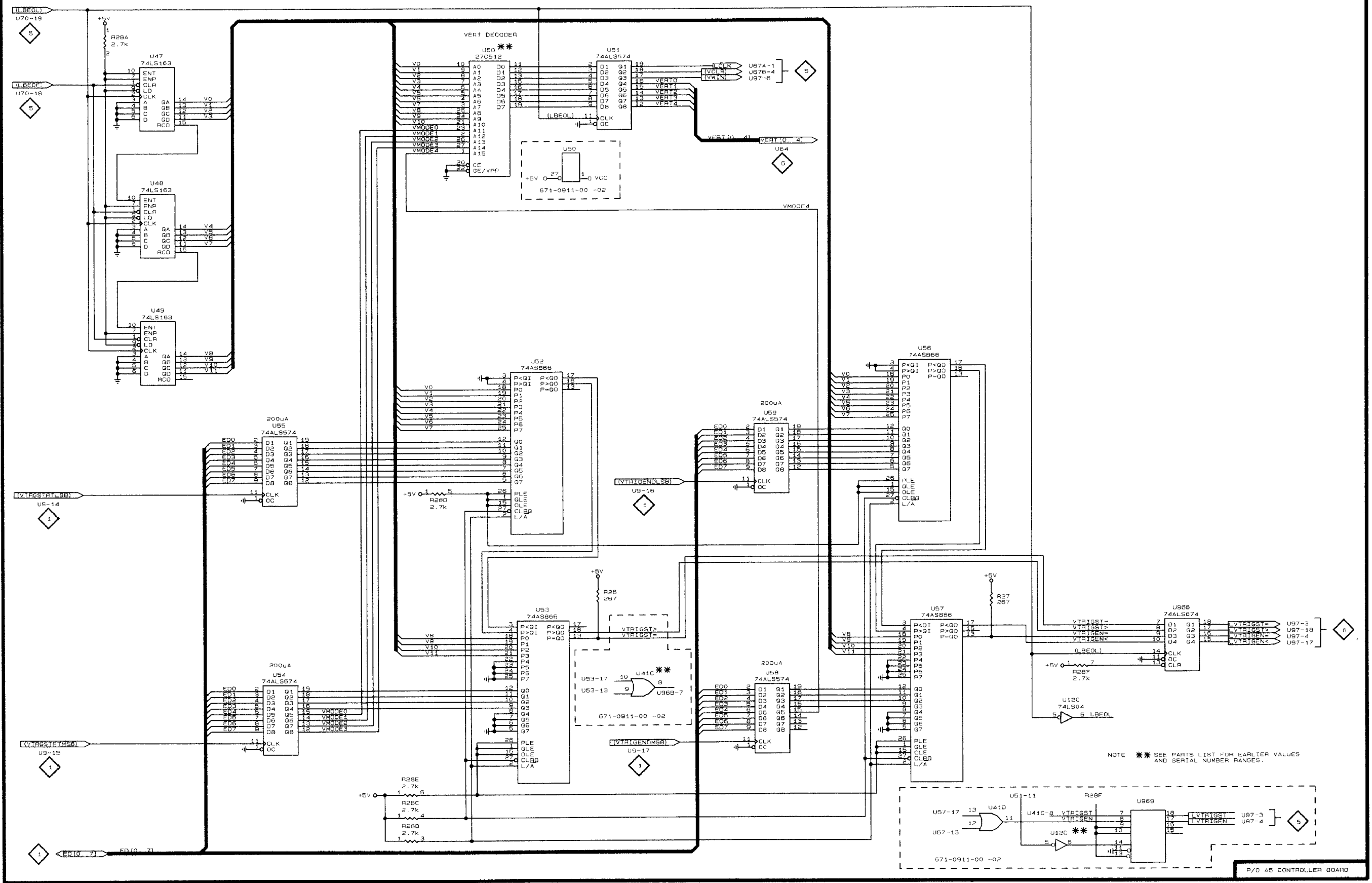
**SCHEMATIC DIAGRAM < 4 >  
CONTROLLER BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1, 2, 3, 5 through 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R26	D4	C3
R27	F4	C3
R28A	A1	D6
R28B	C5	D6
R28C	C5	D6
R28D	C3	D6
R28E	C5	D6
R28F	G4	D6
U12C	G5	H3
U41C **	D4	C2
U41D **	G4	C2
U47	A1	F3
U48	A2	G3
U49	A2	H3
U50	C1	G2
U51	D1	H2
U52	D3	C5
U53	D4	D5
U54	B4	D6
U55	B3	C6
U56	F3	B5
U57	F4	C5
U58	E4	C6
U59	E3	B6
U96B	G4	J5

**\*\*See parts list for earlier  
serial number ranges.**





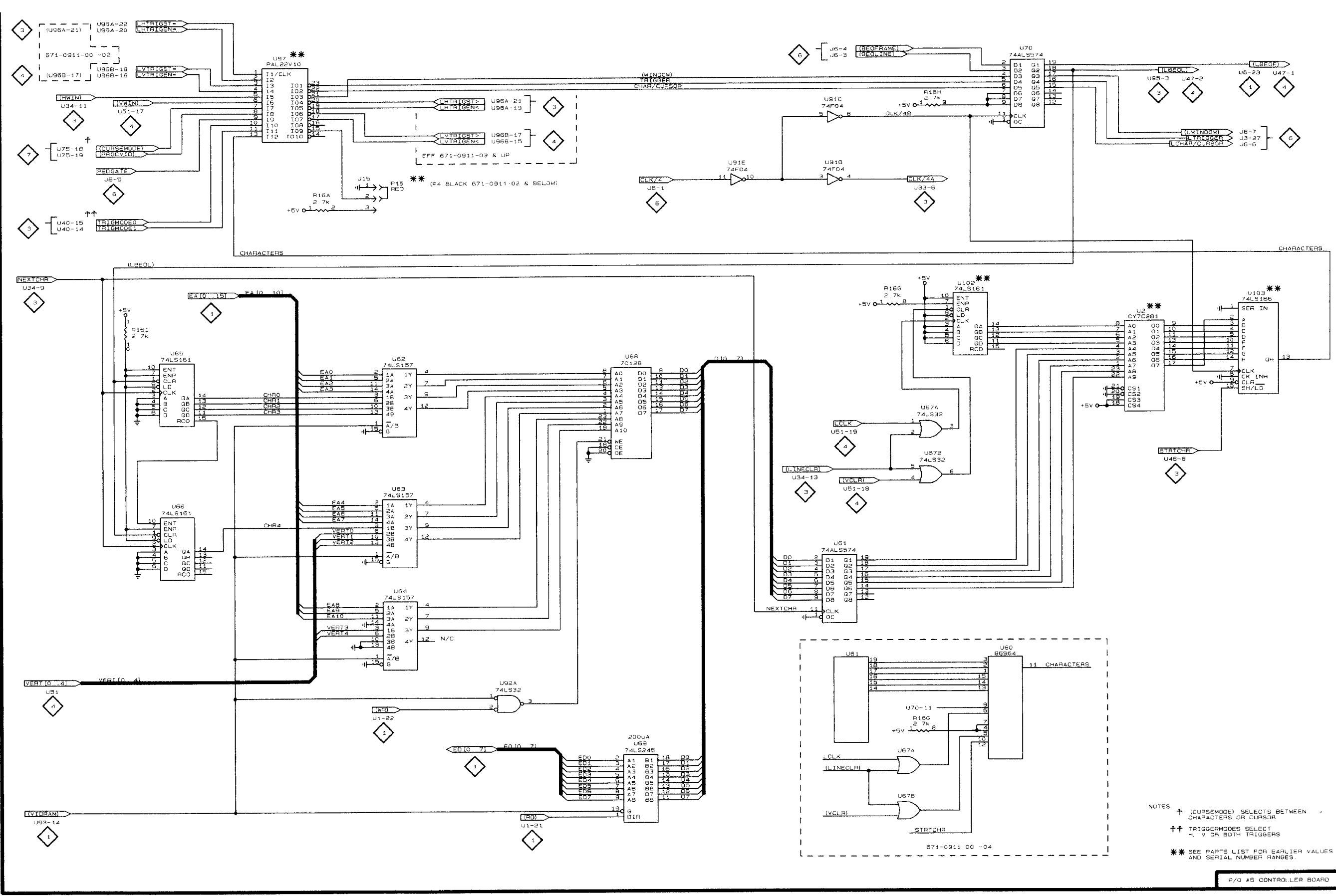
### SCHEMATIC DIAGRAM <5> CONTROLLER BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1 through 4, 6, 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J15	C2	J1
P15	C2	
R16A	B2	H2
R16G	G3	H2
R16H	F1	H2
R16I	A2	H2
U2 *	G2	J3
U60 *	H2	K3
U61	E2	K3
U62	C3	I3
U63	C3	J3
U64	C4	J3
U65	B3	J2
U66	B3	I2
U67A *	F3	K2
U67B *	F3	K2
U68	D3	L2
U69	D5	L3
U70	F1	I4
U91B	E2	I6
U91C	E1	I6
U91E	E2	I6
U92A	C4	I2
U97	B1	J2
U102 *	F2	I4
U103 *	H2	I4

\* See parts list for serial number ranges.



NOTES:  
 † (COURSEMODE) SELECTS BETWEEN CHARACTERS OR CURSOR  
 †† TRIGGERMODES SELECT H, V OR BOTH TRIGGERS  
 \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

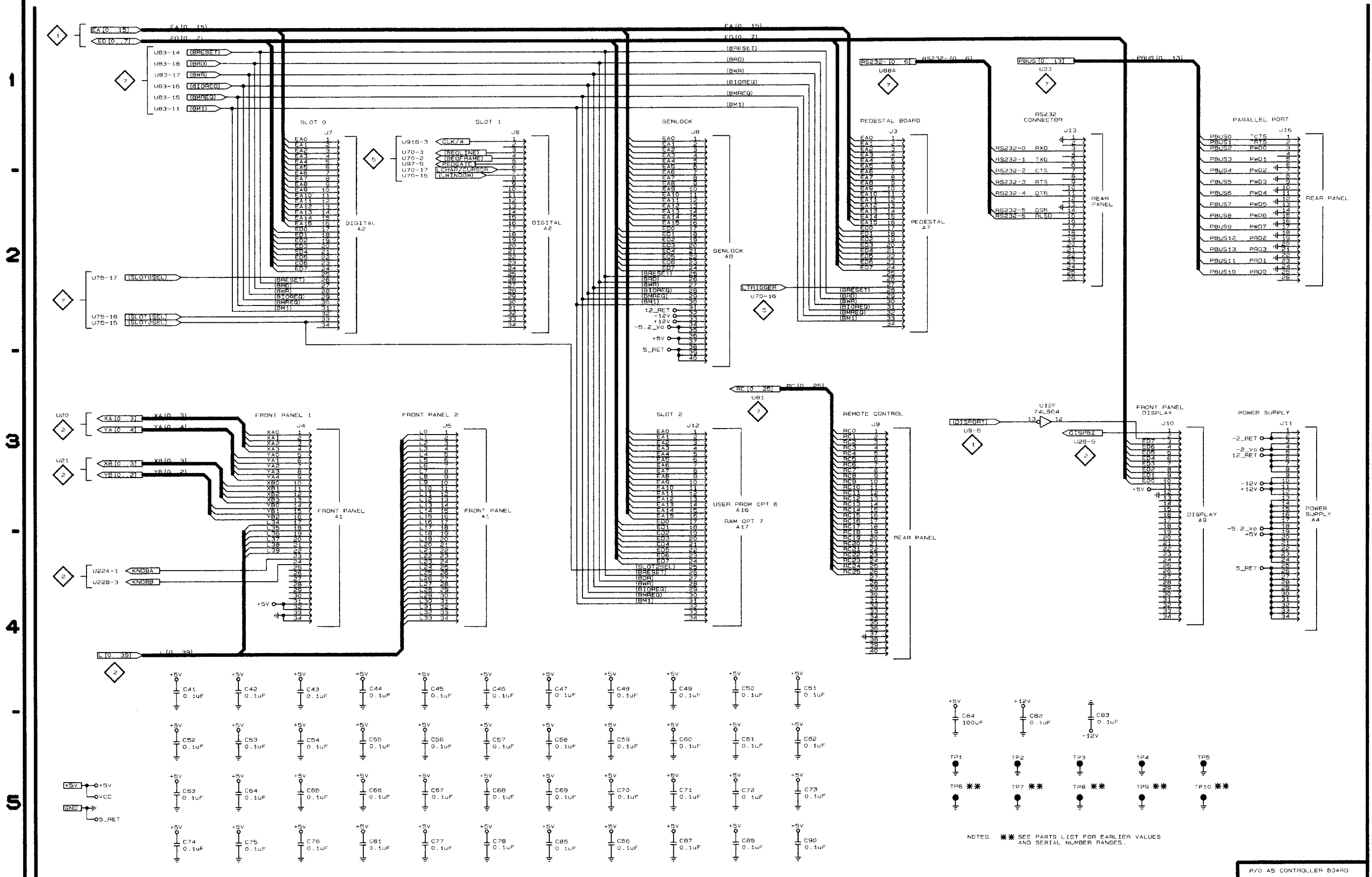
### SCHEMATIC DIAGRAM <6> CONTROLLER BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1 through 5, 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C41	A4	I5	C76	B5	L3
C42	B4	H3	C77	C5	M4
C43	B4	H6	C78	C5	J5
C44	B4	E5	C81	B5	L7
C45	C4	F5	C82	F5	P2
C46	C4	F5	C83	G5	P1
C47	D4	G5	C84	F5	C1
C48	D4	B5	C85	D5	O5
C49	D4	B5	C86	D5	O5
C50	E4	C5	C87	D5	P5
C51	E4	D5	C88	E5	P5
C52	A5	B2	C90	E5	O7
C53	B5	C2	J3	F1	I7
C54	B5	C2	J4	B3	A1
C55	B5	D2	J5	C3	A3
C56	C5	D2	J6	C1	E7
C57	C5	E2	J7	B1	G7
C58	D5	E2	J8	E1	K1
C59	D5	H2	J9	F3	Q7
C60	D5	I2	J10	G3	A5
C61	E5	I2	J11	H3	E1
C62	E5	G2	J12	E3	B7
C63	A5	J2	J13	G1	Q4
C64	B5	K2	J16	H1	P2
C65	B5	K6	TP1	F5	A5
C66	B5	H3	TP2	F5	C3
C67	C5	F2	TP3	G5	N1
C68	C5	F1	TP4	G5	P4
C69	D5	G3	TP5	G5	I1
C70	D5	J4	TP6 **	F5	E5
C71	D5	N4	TP7 **	F5	L7
C72	E5	J4	TP8 **	G5	M4
C73	E5	K5	TP9 **	G5	I4
C74	A5	K5	TP10**	G5	F2
C75	B5	J5	U12F	G3	H3

\*\* See parts list for serial number ranges.



NOTES: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A5 CONTROLLER BOARD

## SCHEMATIC DIAGRAM <7> CONTROLLER BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

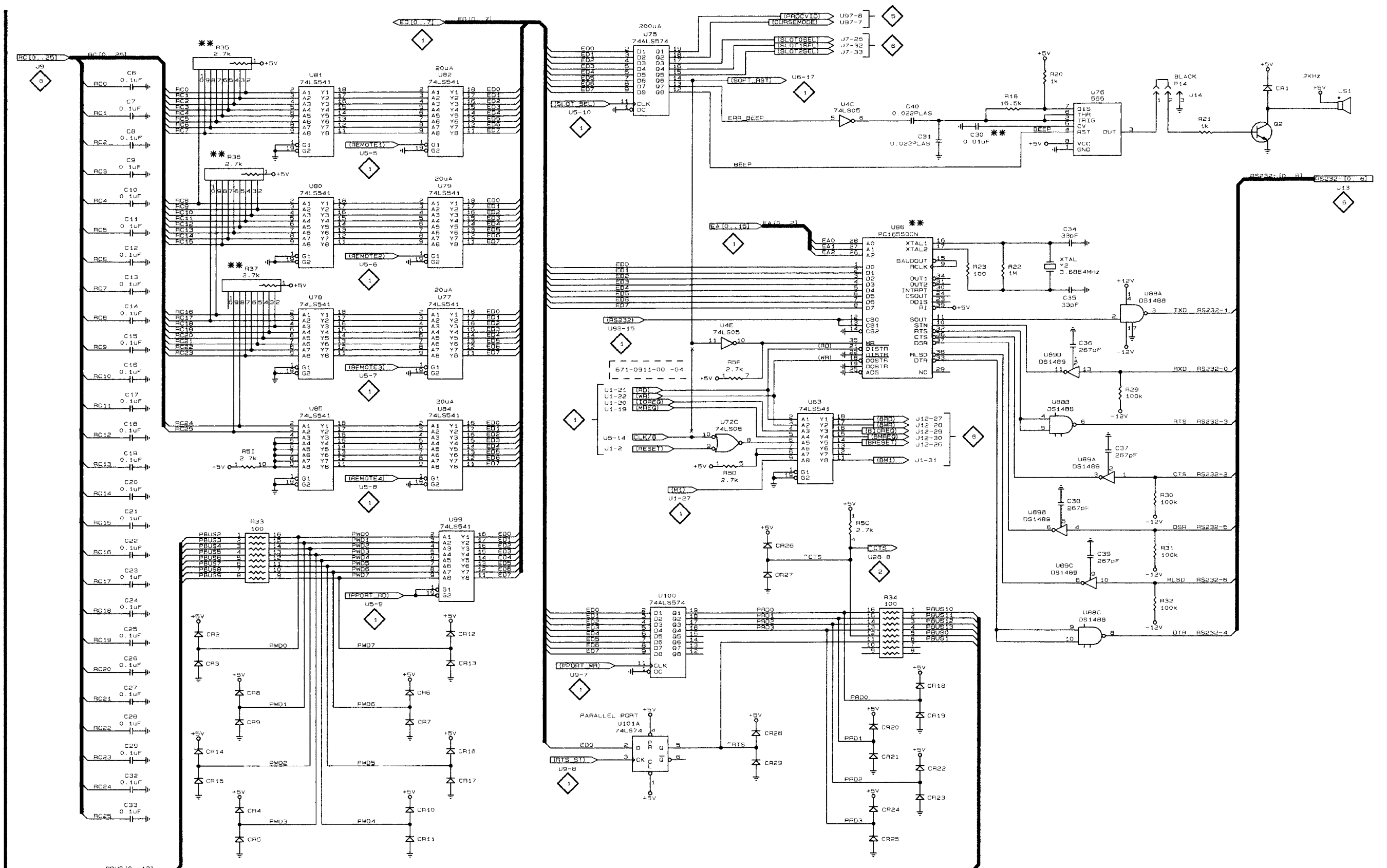
**ASSEMBLY A5.** *Partial Assembly A5 also shown on Schematics 1 through 5, 7.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C6	A1	O7	CR23	F5	O2
C7	A1	O6	CR24	E5	O2
C8	A1	O6	CR25	E5	O2
C9	A1	O6			
C10	A2	O6	CR26	E3	O2
			CR27	E4	O2
C11	A2	O6	CR28	E4	O2
C12	A2	O6	CR29	E5	O2
C13	A2	O6			
C14	A2	P7	J14	G1	B6
C15	A2	P6	LS1	H1	A6
C16	A3	P6			
C17	A3	P6	P14	G1	
C18	A3	P6			
C19	A3	P6	Q2	H1	B6
C20	A3	P6			
C21	A3	P6	R5C	E3	J1
C22	A3	P7	R5D	E3	J1
C23	A4	P6	R5F	E3	J1
C24	A4	P6	R5I	B3	J1
C25	A4	P6	R18	F1	I5
C26	A4	P6	R20	F1	B7
C27	A4	P6	R21	G1	B7
C28	A4	P6	R22	F2	O1
C29	A5	P6	R23	F2	O2
C30	F1	I5	R29	G3	P1
C31	F1	M7	R30	G3	Q1
C32	A5	Q4	R31	G3	Q1
C33	A5	Q4	R32	G4	P1
C34	G2	O1	R33	B3	P3
C35	G2	O2	R34	F4	P2
C36	G2	Q2	R35 **	B1	O7
C37	G3	Q2	R36 **	B1	O6
C38	G3	Q1	R37 **	B2	P6
C39	G4	P1			
C40	F1	M7	U4C	E1	M2
			U4E	E2	M2
			U72C	E3	G2
CR1	H1	B7	U75	D1	J6
CR2	B4	O3	U76	G1	I5
CR3	B4	O3			
CR4	B5	O3	U77	C2	O4
CR5	B5	O3	U78	B2	P6
			U79	C2	O6
CR6	C4	O3	U80	B2	O6
CR7	C4	O3	U81	B1	O7
CR8	B4	O3			
CR9	B4	O3	U82	C1	N7
CR10	C5	O3	U83	E3	I6
			U84	C3	P4
CR11	C5	O3	U85	B3	P6
CR12	C4	O3	U86	E2	N6
CR13	C4	O3	U88A	G2	P2
CR14	B5	O3	U88B	G3	P2
CR15	B5	O3			
			U88C	G4	P2
CR16	C5	O3	U89A	G3	Q2
CR17	C5	O3	U89B	G3	Q2
CR18	F4	O2	U89C	G4	Q2
CR19	F4	O2	U89D	G3	Q2
CR20	E4	O2	U99	C3	N3
			U100	D4	N2
CR21	E5	O2	U101A	D4	K2
CR22	F5	O2			
			Y2	F2	P1

\*\*See parts list for serial number ranges.

A B C D E F G H

1  
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NOTES: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/D A5 CONTROLLER BOARD





# **A6 DIGITAL OUTPUT**



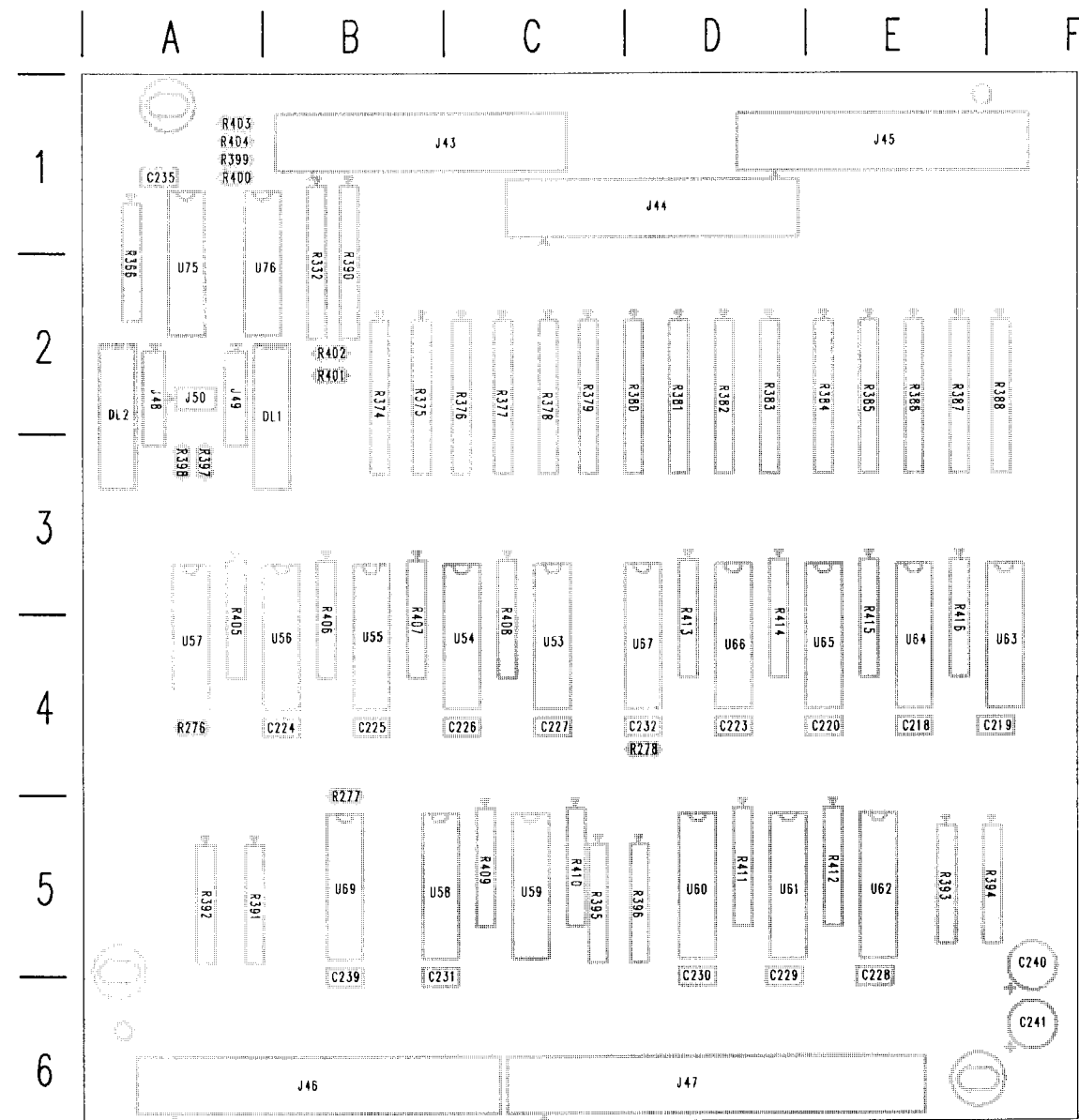




**Schematic Diagram < 1 > Look-up Chart  
DIGITAL OUTPUT Board**

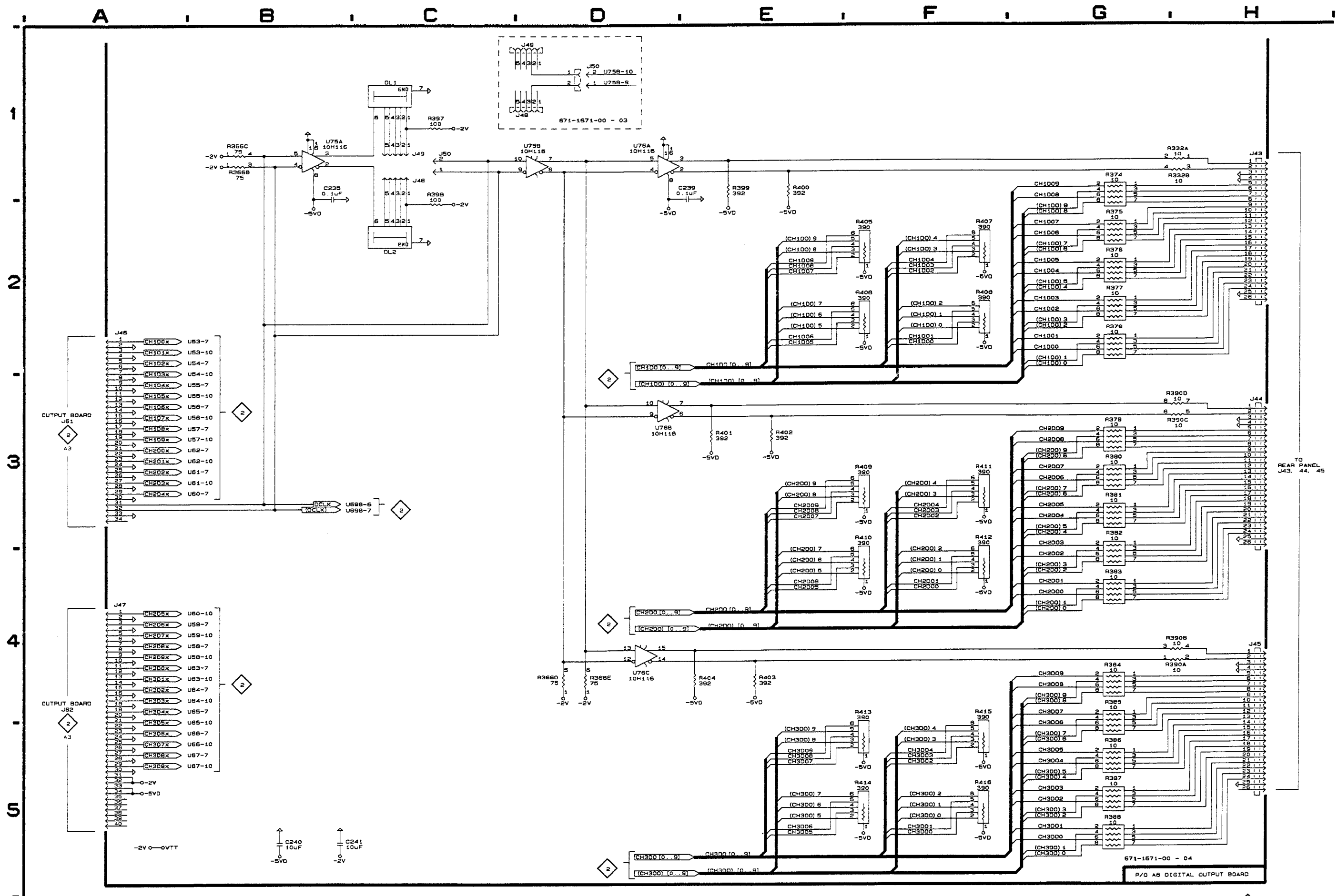
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A6** Partial A6 also shown on diagrams 2.



**A6 DIGITAL OUTPUT Board 671-1671-02 & UP**

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C235	B1	A1	R387	G5	E2
C239	E1	B6	R388	G5	F2
C240	B5	F5	R390A	H4	B1
C241	B5	F6	R390B	H4	B1
			R390C	H3	B1
			R390D	H3	B1
DL1	C1	B2	R397	C1	A3
DL2	C2	A2	R398	C2	A3
J43	H1	B1	R399	E1	A1
J44	H3	D1	R400	E1	A1
J45	H4	E1	R401	E3	B2
J46	A2	B6	R402	E3	B2
J47	A4	D6	R403	E4	A1
J48	C1	A2	R404	E4	A1
J49	C1	A2	R405	F2	A3
J50	C1	A2	R406	F2	B3
			R407	F2	B3
			R408	F2	C3
R332A	H1	B1	R409	F3	C5
R332B	H1	B1	R410	F3	C5
R366B	B1	A1	R411	F3	D5
R366C	B1	A1	R412	F3	E5
R366D	D4	A1	R413	F4	D3
R366E	D4	A1	R414	F5	D3
R374	G1	B2	R415	F4	E3
R375	G2	B2	R416	F5	E3
R376	G2	C2			
R377	G2	C2			
R378	G2	C2	U75A	B1	A2
R379	G3	C2	U75B	C1	A2
R380	G3	D2	U76A	D1	A2
R381	G3	D2	U76B	D3	A2
R382	G3	D2	U76C	D4	A2
R383	G4	D2			
R384	G4	E2	W61	A2	Z9
R385	G4	E2	W62	A4	Z9
R386	G5	E2			

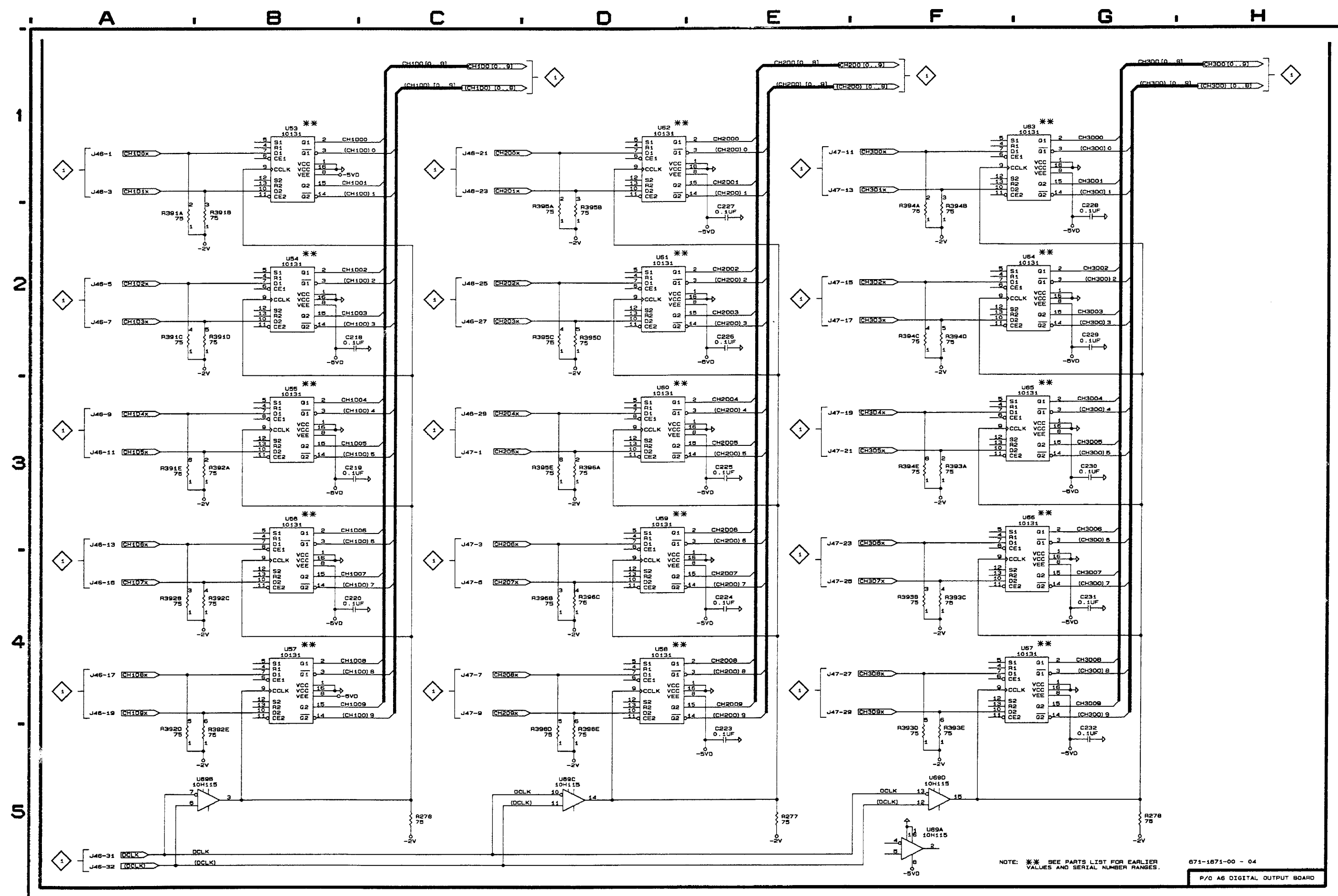


### Schematic Diagram <2> Look-up Chart DIGITAL OUTPUT Board

The schematic diagram hand circuit board illustration as an alphanumeric grid to assist in locating parts within that diagram.

**ASSEMBLY A6** *Partial A6 also shown on diagrams 1.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C218	B2	E4	R394C	F2	E5
C219	B3	E4	R394D	F2	E5
C220	B4	E4	R394E	F3	E5
C223	E5	D4	R395A	D2	C5
C224	E4	B4	R395B	D2	C5
C225	E3	B4	R395C	D2	C5
C226	E2	C4	R395D	D2	C5
C227	E2	C4	R395E	D3	C5
C228	G2	E6	R396A	D3	D5
C229	G2	D6	R396B	D4	D5
C230	G3	D6	R396C	D4	D5
C231	G4	B6	R396D	D5	D5
C232	G5	D4	R396E	D5	D5
R276	C5	A4	U53	B1	C4
R277	E5	B5	U54	B2	C4
R278	G5	D4	U55	B3	B4
R391A	A2	A5	U56	B3	B4
R391B	B2	A5	U57	B4	A4
R391C	A2	A5	U58	D4	B5
R391D	B2	A5	U59	D3	C5
R391E	A3	A5	U60	D3	D5
R392A	B3	A5	U61	D2	D5
R392B	A4	A5	U62	D1	E5
R392C	B4	A5	U63	F1	F4
R392D	A5	A5	U64	F2	E4
R392E	B5	A5	U65	F3	E4
R393A	F3	E5	U66	F3	D4
R393B	F4	E5	U67	F4	D4
R393C	F4	E5	U69A	F5	B5
R393D	F5	E5	U69B	B5	B5
R393E	F5	E5	U69C	D5	B5
R394A	F2	E5	U69D	F5	B5
R394B	F2	E5			



NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

671-1671-00 - 04

P/O AS DIGITAL OUTPUT BOARD





# A7 PEDESTAL



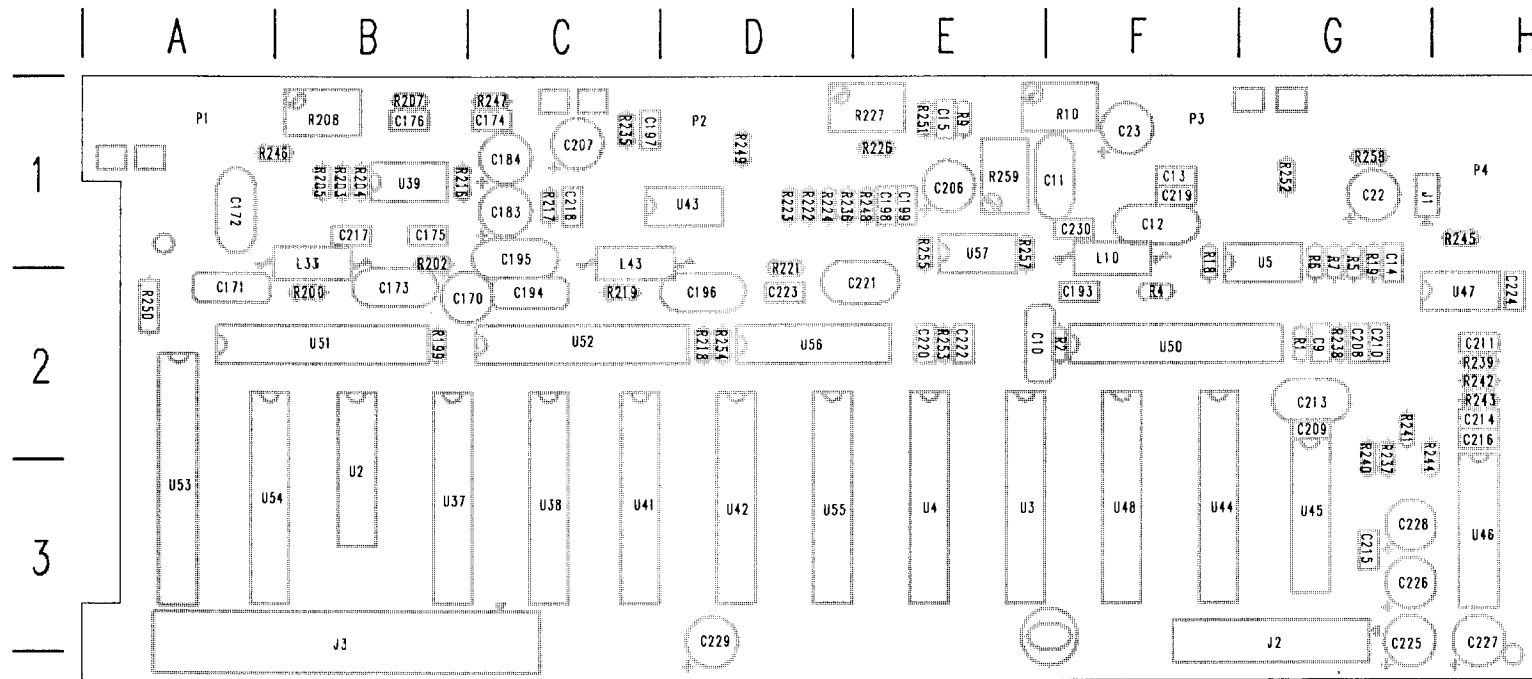




**Schematic Diagram <1> Look-up Chart  
PEDESTAL Board**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A7** Partial A7 also shown on diagram 2.



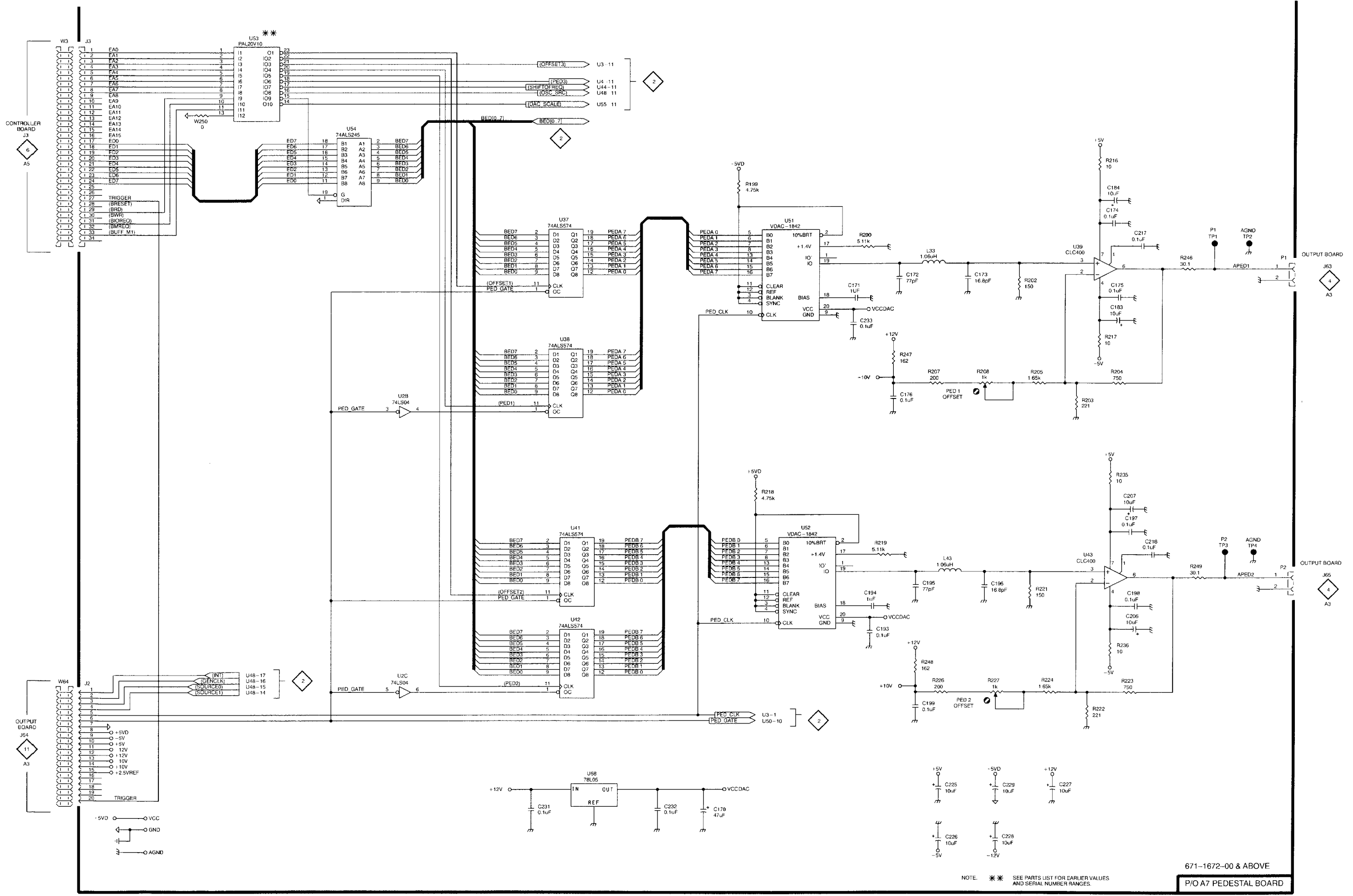
**A7 PEDESTAL Board**

 **Static Sensitive Devices**  
See Maintenance Section

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C170	F2	B2	R207	F3	B1
C171	F2	A2	R208	F3	B1
C172	F2	A1	R216	G1	B1
C173	F2	B2	R217	G2	C1
C174	G2	C1	R218	E3	D2
C175	G2	B1	R219	F4	C2
C176	F3	B1	R221	G4	D2
C183	G2	C1	R222	G4	D1
C184	G2	C1	R223	G4	D1
C193	F4	F2	R224	G4	D1
C194	F4	C2	R226	F4	E1
C195	F4	C1	R227	F4	E1
C196	F4	D2	R235	G3	C1
C197	G3	C1	R236	G4	D1
C198	G4	E1	R246	G2	A1
C199	F4	E1	R247	F2	C1
C206	G4	E1	R248	F4	E1
C207	G3	C1	R249	H4	D1
C217	G2	B1			
C218	G4	C1	TP1	H2	D4
C225	F5	G3	TP2	H2	D4
C226	F5	G3	TP3	H4	D4
C227	G5	H3	TP4	H4	D4
C228	F5	G3			
C229	F5	D3	U2B	C3	B3
J2	A4	G3	U2C	C4	B3
J3	A1	B3	U37	D2	B3
L33	F2	B2	U38	D2	C3
L43	F4	C2	U39	G2	B1
P1	H2	A1	U41	D4	C3
P2	H4	D1	U42	D4	D3
R199	E2	B2	U43	G4	D1
R200	F2	B2	U51	E2	B2
R202	F2	B2	U52	E4	C2
R203	G3	B1	U53	B1	A3
R204	G3	B1	U54	C1	A3
R205	G3	B1	W3		A1
			W64	A4	
			W250	B1	A2

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TSG 1001

PEDESTAL 1 AND 2 / INTERCONNECT

A7 1

NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

671-1672-00 & ABOVE

P/O A7 PEDESTAL BOARD

### Schematic Diagram <2> Look-up Chart PEDESTAL Board

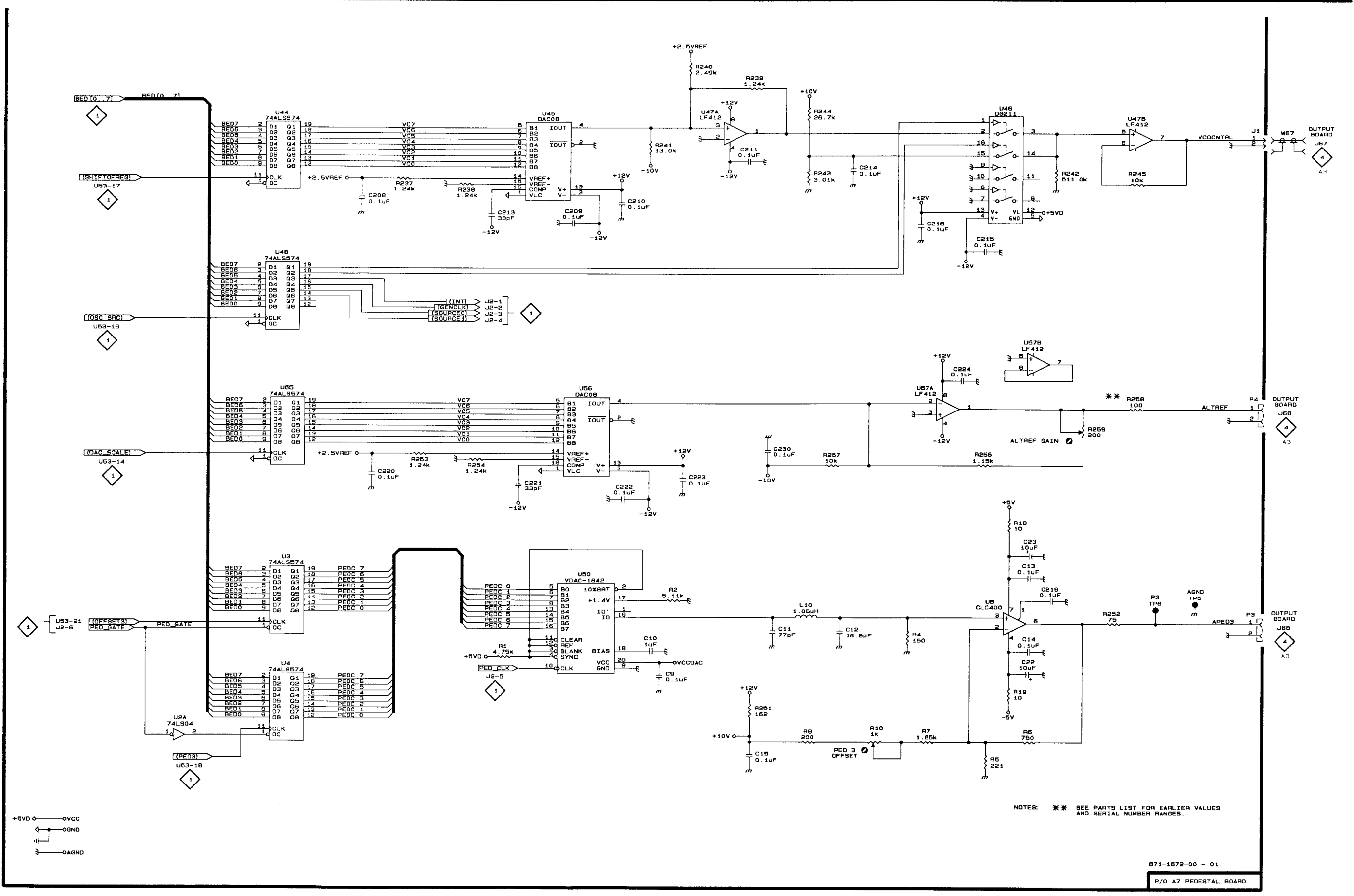
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A7** Partial A7 also shown on diagram 1.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C9	D4	G2	R18	F3	F1
C10	D4	E2	R19	F4	G1
C11	E4	F1	R237	C1	G2
C12	E4	F1	R238	C2	G2
C13	G4	F1	R239	E1	H2
C14	G4	G1	R240	E1	G2
C15	E5	E1	R241	D1	G2
C22	G4	G1	R242	G1	H2
C23	G4	F1	R243	E1	H2
C208	C2	G2	R244	E1	G2
C209	D2	G2	R245	G2	H1
C210	D2	G2	R251	E4	E1
C211	E1	H2	R252	G4	G1
C213	C2	G2	R253	C3	E2
C214	F1	H2	R254	C3	D2
C215	F2	G3	R255	F3	E1
C216	F2	H2	R257	E3	E1
C219	G4	F1	R258	G3	G1
C220	C3	E2	R259	G3	E1
C221	D3	D2			
C222	D3	E2	TP5	H4	D4
C223	E3	D2	TP6	G4	D4
C224	F3	H2			
C230	E3	F1	U2A	B5	B3
			U3	B4	E3
J1	H1	G1	U4	B4	E3
			U5	F4	G2
L10	E4	F1	U44	B1	F3
			U45	D1	G3
P3	H4	F1	U46	F1	H3
P4	H3	H1	U47A	E1	H2
			U47B	G1	H2
R1	C4	G2	U48	B2	F3
R2	D4	F2	U50	D4	F2
R4	F4	F2	U55	B3	D3
R5	F5	G1	U56	D3	D2
R6	G5	G1	U57A	F3	E1
R7	F5	G1	U57B	G2	E1
R9	E5	E1			
R10	F5	F1	W67	H1	

A B C D E F G H

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# A8 CLOCK INPUT





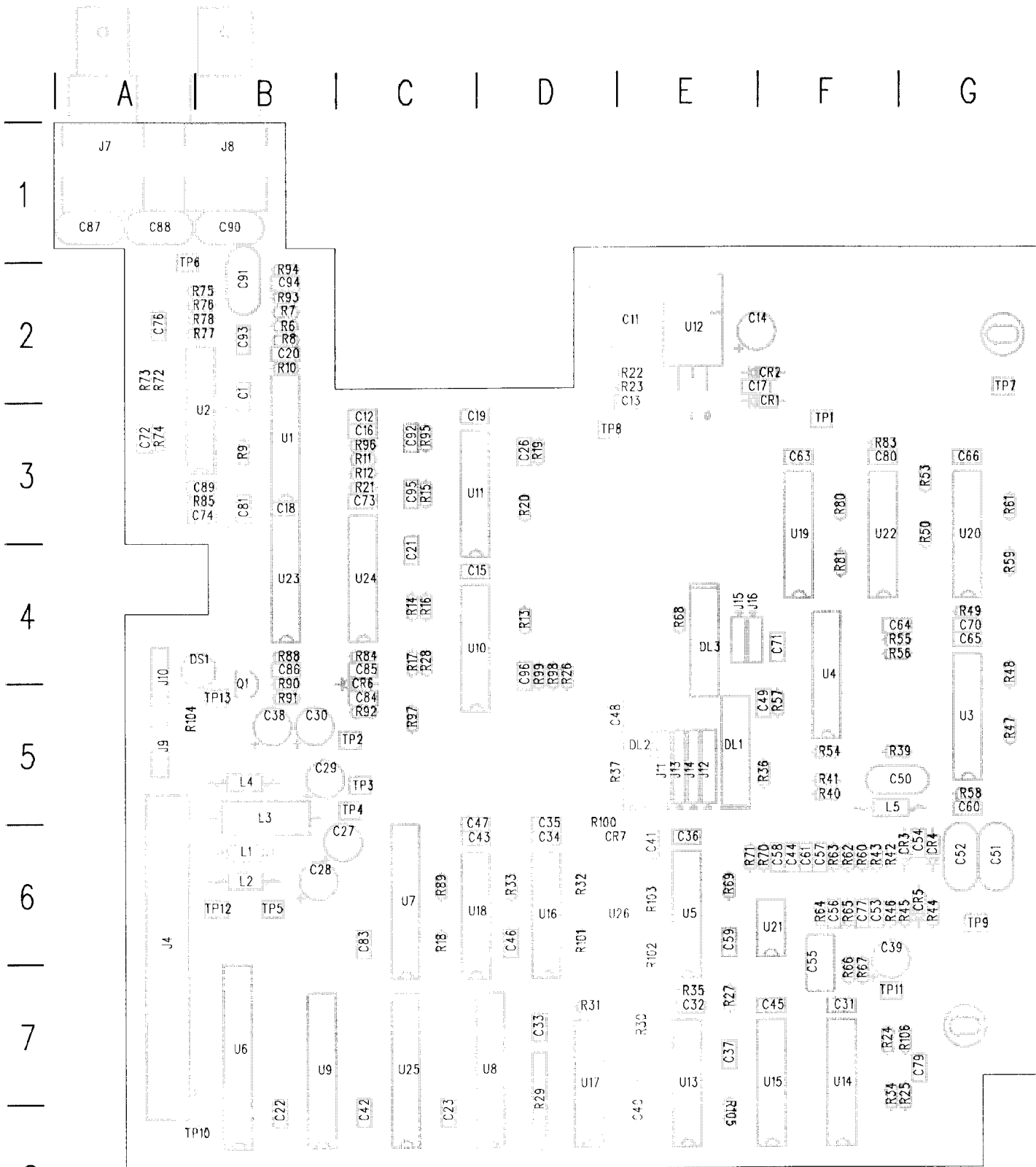


**SCHEMATIC DIAGRAM < 1 >  
CLOCK INPUT BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram and circuit board.

**ASSEMBLY A8** Partial Assembly A8 also shown on diagrams 2, 3, and 4.

Use the circuit board lookup table, below, for schematic < 1 >



671-1345-00 & UP

**A8 CLOCK INPUT Board**

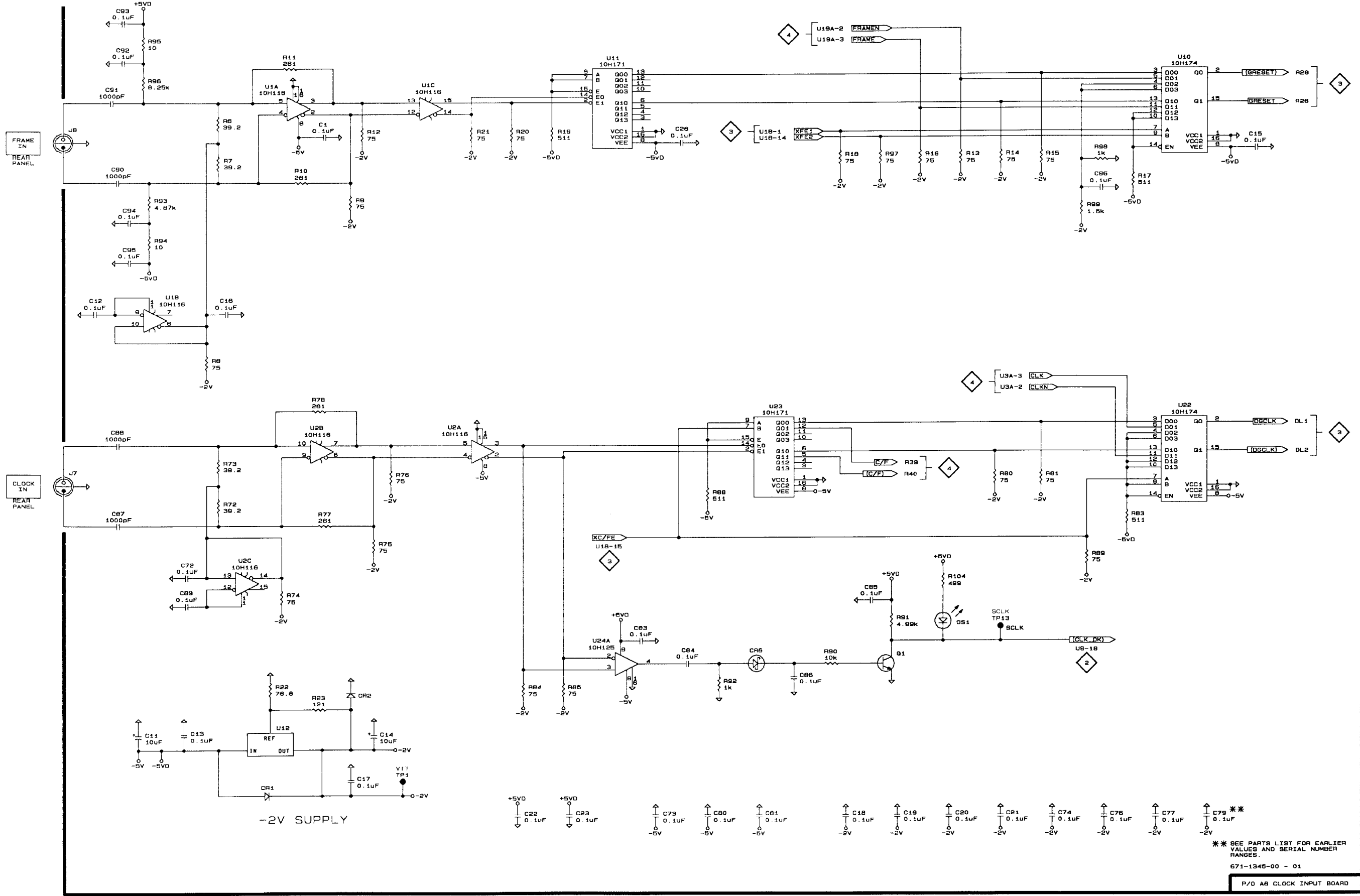
Static Sensitive Devices  
See Maintenance Section

CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC
C1	B1	1	B2	C84	E4	1	C5	R22	B4	1	E2	R96	A1	1	C3
C11	A5	1	E2	C85	F4	1	C4	R23	B4	1	E2	R97	F1	1	C5
C12	A2	1	C3	C86	E4	1	B4	R24	F3	3	F7	R98	G1	1	D5
C13	B5	1	E3	C87	A3	1	A1	R25	G3	3	G8	R99	G2	1	D5
C14	C5	1	E2	C88	A3	1	A1	R26	D3	3	D5	R100	E4	3	D6
C15	H1	1	C4	C89	B4	1	B3	R27	D4	3	E7	R101	E4	3	D6
C16	B2	1	C3	C90	A2	1	B1	R28	C3	3	C4	R102	F4	3	E7
C17	C5	1	E2	C91	A1	1	B2	R29	E1	3	D8	R103	G4	3	E6
C18	E5	1	B3	C92	A1	1	C3	R30	C1	3	E7	R104	F4	1	B5
C19	F5	1	C3	C93	A1	1	B2	R31	E1	3	D7	R105	D3	3	E7
C20	F5	1	B2	C94	A2	1	B2	R32	C1	3	D6	R106	C2	3	G7
C21	F5	1	C4	C95	A2	1	C3	R33	B2	3	D6				
C22	D5	1	B8	C96	G2	1	D5	R34	D2	3	F8	TP1	C5	1	F3
C23	D5	1	C8					R35	F3	3	E7	TP2	D5	2	C5
C26	D1	1	D3	CR1	B5	1	F3	R36	C4	3	F5	TP3	D5	2	C5
C27	C5	2	B6	CR2	C4	1	F2	R37	C5	3	E5	TP4	E5	2	C5
C28	B5	2	B6	CR3	D1	4	G6	R39	B2	4	F5	TP5	D5	2	B6
C29	C5	2	B5	CR4	C2	4	G6	R40	B1	4	F5	TP6	E5	2	A2
C30	B5	2	B5	CR5	C4	4	G6	R41	B1	4	F5	TP7	F5	2	G2
C31	E3	3	F7	CR6	E4	1	C5	R42	D2	4	F6	TP8	F5	2	D3
C32	F1	3	E7	CR7	E4	3	D6	R43	D1	4	F6	TP9	F5	2	G6
C33	E1	3	D7					R44	C1	4	G6	TP10	G5	2	A8
C34	D1	3	D6	DL1	C3	3	E5	R45	D1	4	G6	TP11	D5	4	F7
C35	C1	3	D6	DL2	C5	3	E5	R46	E2	4	F6	TP12	C5	4	B6
C36	E2	3	E6	DL3	B2	4	E4	R47	E1	4	G5	TP13	F4	1	B5
C37	G2	3	E7	DS1	F4	1	A4	R48	E1	4	G5	U1A	B1	1	B3
C38	G5	3	B5	J4	A1	2	A6	R49	F1	4	G4	U1B	A2	1	B3
C39	G5	3	F5	J7	A3	1	A1	R50	F1	4	G4	U2A	C3	1	B3
C40	D3	3	E8	J8	A1	1	B1	R53	F3	4	G3	U2B	B3	1	B3
C41	G4	3	E6	J9	H3	2	A5	R54	F3	4	F5	U2C	B4	1	B3
C42	C2	3	C8	J10	H4	2	A5	R55	E3	4	F4	U3A	F1	4	G5
C43	B3	3	C6	J11	C5	3	E5	R56	D3	4	F4	U3B	E1	4	G5
C44	E5	3	F6	J12	C4	3	E5	R57	D3	4	F5	U3C	D2	4	G5
C45	E5	3	F7	J13	C5	3	E5	R58	E4	4	G5	U4A	E3	4	F4
C46	F5	3	D6	J14	C4	3	E5	R59	F4	4	G4	U4B	D3	4	F4
C47	F5	3	C6	J15	B2	4	E4	R60	E5	4	F6	U4C	D3	4	F4
C48	F5	3	E5	J16	B2	4	E4	R61	F5	4	G3	U5A	D3	3	E6
C49	D3	4	F5		B3	4	F4	R62	E5	4	F6	U5B	G4	3	E6
C50	C1	4	F5	L1	B2	2	B6	R63	E4	4	F6	U5C	D4	3	E6
C51	C1	4	G6	L2	B2	2	B6	R64	E4	4	F6	U6	C1	2	B7
C52	D2	4	G6	L3	B2	2	B5	R65	E5	4	F6	U7	D3	2	C6
C53	D2	4	F6	L4	A3	2	B5	R66	D5	4	F7	U8	E1	2	D7
C54	D2	4	G6	L5	B1	4	F5	R67	C4	4	F7	U9	D3	2	B7
C55	D6	4	F7					R68	B2	4	E4	U10	G1	1	C4
C56	E5	4	F6	P1	B3	4		R69	D4	4	E6	U11	D1	1	C3
C57	E4	4	F6	P2	C5	3		R70	D4	4	F6	U12	B5	1	E2
C58	D4	4	F6	P3	C4	3		R71	C4	4	E6	U13	E2	3	E7
C59	D4	4	E6	Q1	F4	1	B5	R72	B3	1	A2	U14	F2	3	F7
C60	A5	4	G5					R73	B3	1	A2	U15A	E3	3	F7
C61	A5	4	F6					R74	B4	1	A3	U19A	G3	4	F3
C63	B5	4	F3	R6	B1	1	B2	R75	C4	1	A2	U16	C1	3	D6
C64	B5	4	F4	R7	B1	1	B2	R76	C3	1	B2	U17	E1	3	D7
C65	B5	4	G4	R8	B3	1	B2	R77	B3	1	B2	U18	B2	3	C6
C66	C5	4	G3	R9	C2	1	B3	R78	B3	1	B2	U19A	G3	4	F3
C70	D2	4	G4	R10	B2	1	B2	R80	F3	1	F3	U19B	G3	4	F3
C71	D4	4	F4	R11	B1	1	C3	R81	G3	1	F4	U20A	F4	4	G3
C72	B4	1	A3	R12	C1	1	C3	R83	G3	1	F3	U20C	F5	4	G3
C72	B4	1	A3	R13	F1	1	D4	R84	D4	1	C4	U21A	D4	4	F6
C73	D5	1	C3	R14	F1	1	C4	R85	D4	1	B3	U22	G3	1	B4
C73	D5	1	C3	R15	G1	1	C3	R88	E3	1	B4	U23	E3	1	B4
C74	G5	1	C3	R16	F1	1	C4	R89	G4	1	C6	U25	E2	2	C7
C76	G5	1	A2	R17	G2	1	C4	R90	E4	1	B5	U24A	D4	1	C4
C77	G5	1	F6	R18	E1	1	C6	R91	F4	1	B5	U26A	F4	3	D6
C79*	H5	1	G7	R19	D1	1	D3	R92	E4	1	C5	W8	A1	2	
C80	E5	1	F3	R20	C1	1	D3	R93	A2	1	B2	W69A	H4	2	
C81	E5	1	B3	R21	C1	1	C3	R94	A2	1	B2	W69B	H4	2	
C83	D4	1	C6					R95	A1	1	C3				

\*\* See parts list for earlier serial number ranges.

A B C D E F G H

1  
2  
3  
4  
5



\*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

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P/O AB CLOCK INPUT BOARD

**SCHEMATIC DIAGRAM < 2 >  
CLOCK INPUT Board**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram and circuit board.

**ASSEMBLY A8.** *Partial Assembly A8 also shown on diagrams 1, 3, and 4.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C27	C5	B6
C28	B5	B6
C29	C5	B5
C30	B5	B5
J4	A1	A6
J9	H3	A5
J10	H4	A5
L1	B2	B6
L2	B2	B6
L3	B2	B5
L4	A3	B5
TP2	D5	C5
TP3	D5	C5
TP4	E5	C5
TP5	D5	B6
TP6	E5	A2
TP7	F5	G2
TP8	F5	D3
TP9	F5	G6
TP10	G5	A8
U6	C1	B7
U7	D3	C6
U8	E1	D7
U9	D3	B7
U25	E2	C7
W8	A1	
W69A	H4	
W69B	H4	

A B C D E F G H

1

2

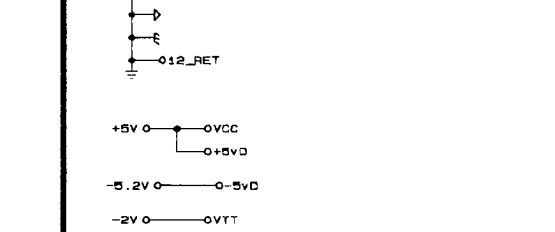
3

4

5

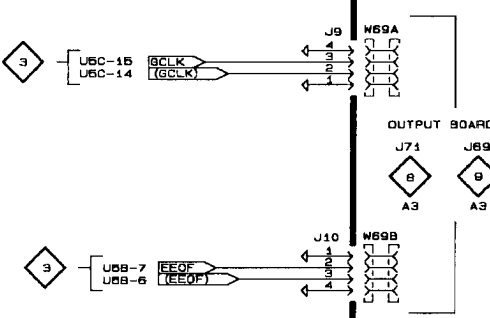
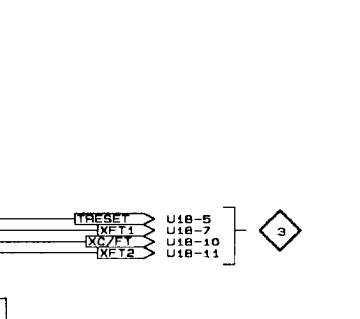
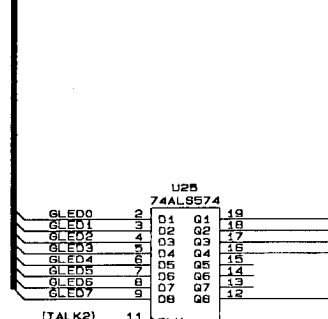
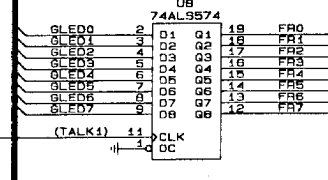
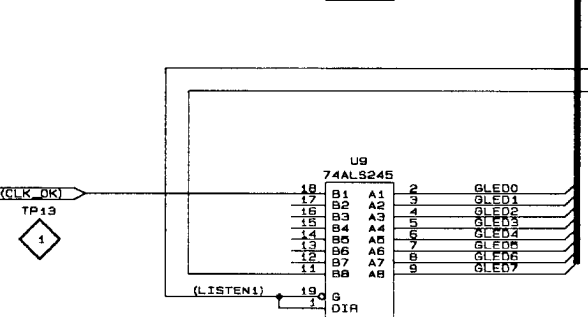
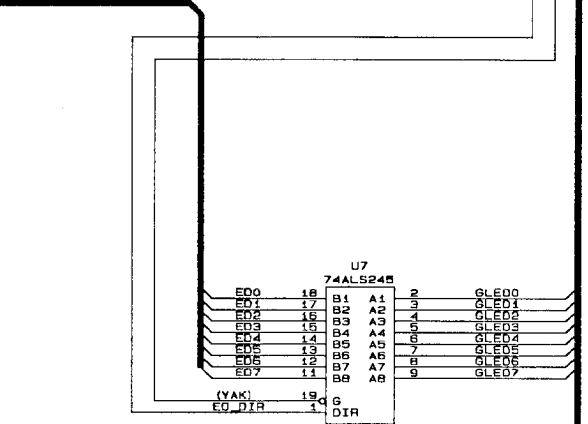
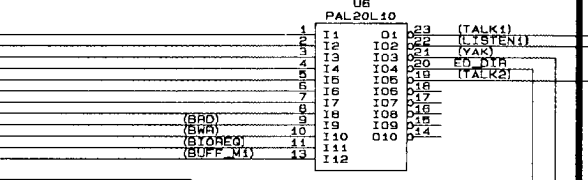
CONTROLLER BOARD  
J4  
WB  
A5

J4  
1 EA0  
2 EA1  
3 EA2  
4 EA3  
5 EA4  
6 EA5  
7 EA6  
8 EA7  
9 EA8  
10 EA9  
11 EA10  
12 EA11  
13 EA12  
14 EA13  
15 EA14  
16 EA15  
17 ED0  
18 ED1  
19 ED2  
20 ED3  
21 ED4  
22 ED5  
23 ED6  
24 ED7  
25 (BRD)  
26 (BWR)  
27 (BYOREG)  
28  
29  
30 (BUFF\_M1)  
31 -012\_RET  
32  
33  
34  
35  
36  
37  
38  
39  
40



+5V 0 -0VCC  
+5V 0 -0+5VD  
-5.2V 0 -0-5VD  
-2V 0 -0VTT

J4  
1 EA0  
2 EA1  
3 EA2  
4 EA3  
5 EA4  
6 EA5  
7 EA6  
8 EA7  
9 EA8  
10 EA9  
11 EA10  
12 EA11  
13 EA12  
14 EA13  
15 EA14  
16 EA15  
17 ED0  
18 ED1  
19 ED2  
20 ED3  
21 ED4  
22 ED5  
23 ED6  
24 ED7  
25 (BRD)  
26 (BWR)  
27 (BYOREG)  
28  
29  
30 (BUFF\_M1)  
31 -012\_RET  
32  
33  
34  
35  
36  
37  
38  
39  
40



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P/O AB CLOCK INPUT BOARD

### SCHEMATIC DIAGRAM < 3 > CLOCK INPUT Board

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram and circuit board.

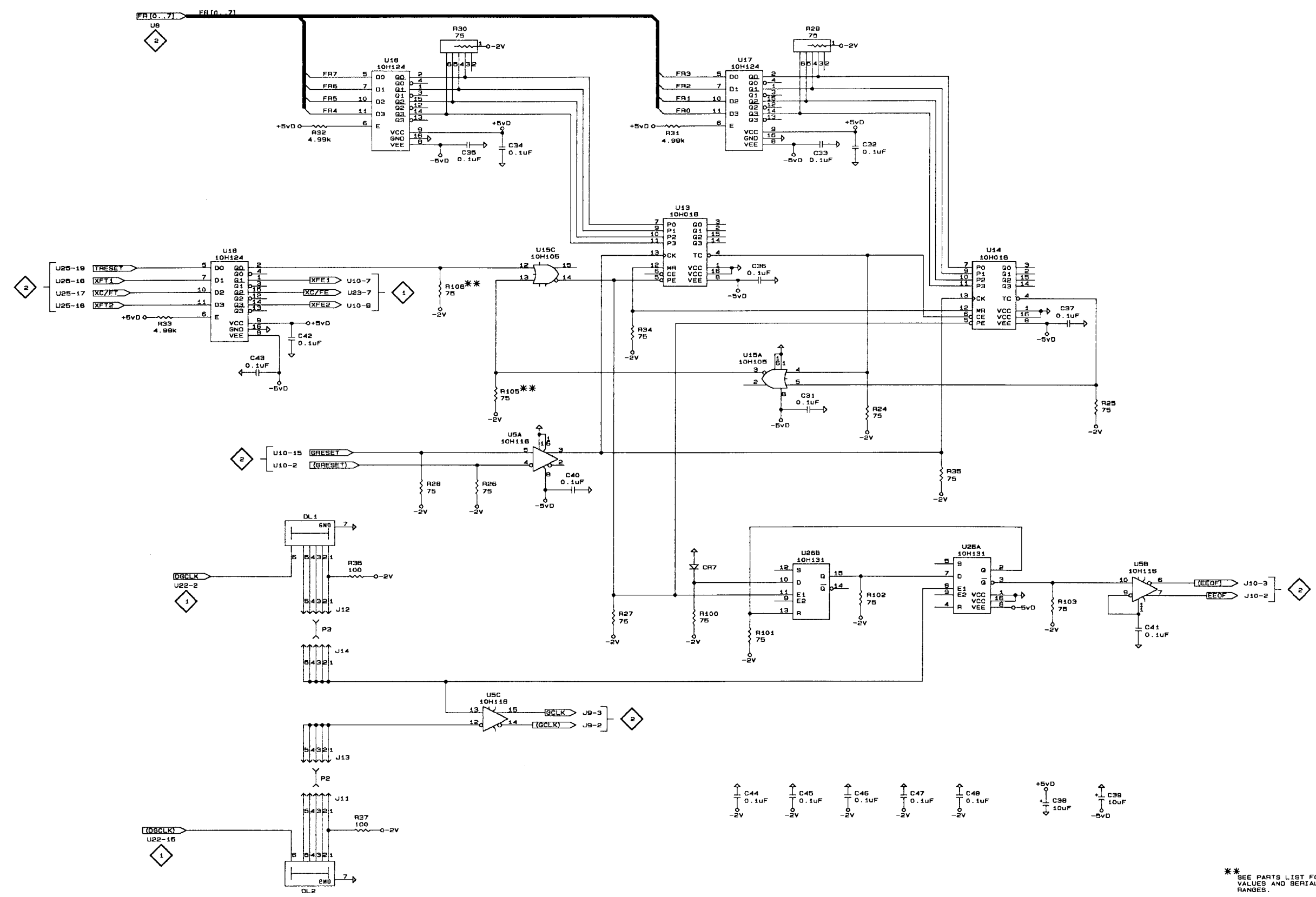
**ASSEMBLY A8.** *Partial Assembly A8 also shown on diagrams 1, 2, and 4.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C31	E3	F7
C32	F1	E7
C33	E1	D7
C34	D1	D6
C35	C1	D6
C36	E2	E6
C37	G2	E7
C38	G5	B5
C39	G5	F6
C40	D3	E8
C41	G4	E6
C42	C2	C8
C43	B3	C6
C44	E5	F6
C45	E5	F7
C46	F5	D6
C47	F5	C6
C48	F5	E5
CR7	E4	D6
DL1	C3	E5
DL2	C5	E5
J11	C5	E5
J12	C4	E5
J13	C5	E5
J14	C4	E5
P2	C5	
P3	C4	
R24	F3	F7
R25	G3	G8
R26	D3	D5
R27	D4	E7
R28	C3	C4
R29	E1	D8
R30	C1	E7
R31	E1	D7
R32	C1	D6
R33	B2	D6
R34	D2	F8
R35	F3	E7
R36	C4	F5
R37	C5	E5
R100	E4	D6
R101	E4	D6
R102	F4	E7
R103	G4	E6
R104	F4	B5
R105 *	D3	E7
R106 *	C2	G7
U5A	D3	E6
U5B	G4	E6
U5C	D4	E6
U13	E2	E7
U14	F2	F7
U15A	E3	F7
U15C	D2	F7
U16	C1	D6
U17	E1	D7
U18	B2	C6
U26A	F4	D6
U26B	E4	D6

\*\* See parts list for earlier serial number ranges.

A B C D E F G H

1  
2  
3  
4  
5



- ↑ C44 0.1uF
- ↑ C45 0.1uF
- ↑ C46 0.1uF
- ↑ C47 0.1uF
- ↑ C48 0.1uF
- ↑ +5V C38 10uF
- ↑ -2V C39 10uF

\*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

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P/Q A8 CLOCK INPUT BOARD

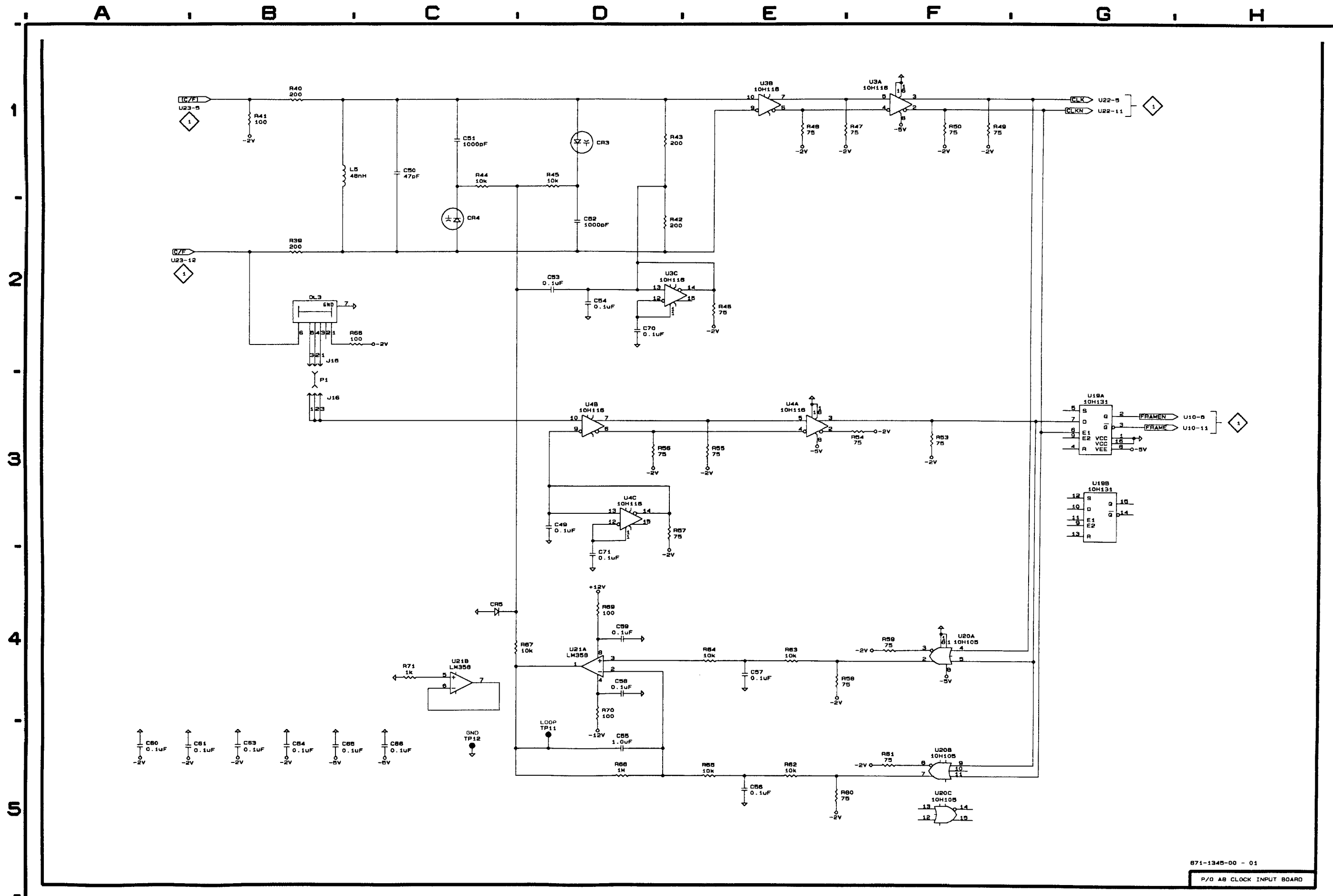


**SCHEMATIC DIAGRAM <4>  
CLOCK INPUT BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram and circuit board.

**ASSEMBLY A8.** *Partial Assembly A8 also shown on diagrams 1, 2, and 3.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C49	D3	F5	R47	E1	G5
C50	C1	F5	R48	E1	G5
C51	C1	G6	R49	F1	G4
C52	D2	G6	R50	F1	G4
C53	D2	F6	R53	F3	G3
C54	D2	G6	R54	F3	F5
C55	D5	F7	R55	E3	F4
C56	E5	F6	R56	D3	F4
C57	E4	F6	R57	D3	F5
C58	D4	F6	R58	E4	G5
C59	D4	E6	R59	F4	G4
C60	A5	G5	R60	E5	F6
C61	A5	F6	R61	F5	G3
C63	B5	F3	R62	E5	F6
C64	B5	F4	R63	E4	F6
C65	B5	G4	R64	E4	F6
C66	C5	G3	R65	E5	F6
C70	D2	G4	R66	D5	F7
C71	D4	F4	R67	C4	F7
			R68	B2	E4
CR3	D1	G6	R69	D4	E6
CR4	C2	G6	R70	D4	F6
CR5	C4	G6	R71	C4	E6
			TP11	D5	F7
DL3	B2	E4	TP12	C5	B6
J15	B2	E4	U3A	F1	G5
J16	B3	F4	U3B	E1	G5
L5	B1	F5	U3C	D2	G5
			U4A	E3	F4
P1	B3		U4B	D3	F4
			U4C	D3	F4
R39	B2	F5	U19A	G3	F3
R40	B1	F5	U19B	G3	F3
R41	B1	F5	U20A	F4	G3
R42	D2	F6	U20B	F5	G3
R43	D1	F6	U20C	F5	G3
R44	C1	G6	U21A	D4	F6
R45	D1	G6	U21B	C4	F6
R46	E2	F6			



871-1345-00 - 01  
P/O AB CLOCK INPUT BOARD





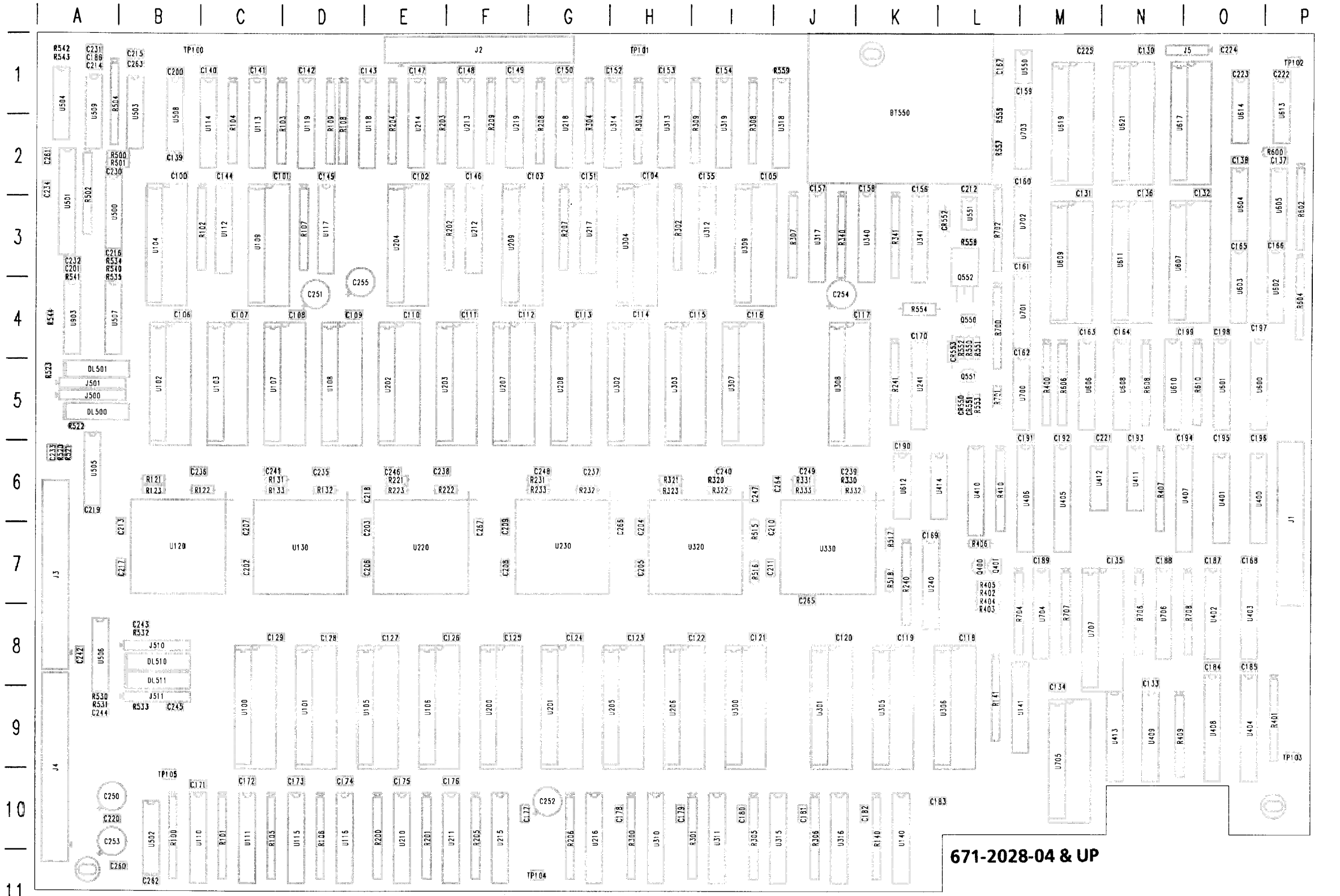
# A17 RAM



## RAM BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board. **ASSEMBLY A17**

CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC				
BT550	B4	11	J2	C154	D3	12	I1	C210	D5	12	J7	C275	G2	6	B7	R200	B2	8	E10	R518	F3	11	K7	U111	E2	6	C10	U319	E4	9	I1	U604	B2	3	O2
C100	C1	12	B2	C155	D3	12	I2	C211	D5	12	J7	C276	G2	6	B7	R202	B3	8	F2	R520	B2	11	A6	U112	E2	6	C2	U320	G1	10	H8	U605	B3	3	O2
C101	C1	12	C2	C156	E3	12	K2	C212	D5	12	L2	C277	G1	6	B7	R203	B4	8	E1	R521	B2	11	A6	U113	E3	6	C1	U330	G1	9	J7	U606	G1	3	M4
C102	D1	12	E2	C157	E3	12	J2	C213	E5	12	B7	C278	G1	6	B7	R204	B5	8	E1	R522	C2	11	A5	U114	E3	6	C1	U340	F4	4	K4	U607	E1	3	N3
C103	D1	12	G2	C158	E3	12	K2	C214	E5	12	A1	C279	G1	6	B7	R205	B2	7	F10	R523	C3	11	A5	U115	E1	5	D10	U341	F5	4	K4	U608	G3	3	N4
C104	D1	12	H2	C159	F3	12	L1	C215	E5	12	B1	C280	G2	6	E7	R206	B2	7	G10	R530	A1	11	A9	U116	E2	5	D10	U400	B2	1	O6	U609	E2	3	M3
C105	E1	12	I2	C160	F3	12	L2	C216	F5	12	A3	C281	G2	6	E7	R207	B3	7	G2	R531	B1	11	A9	U117	E2	5	D2	U401	D2	1	O6	U610	G4	3	N4
C106	E1	12	B4	C161	F3	12	L3	C217	E4	12	B7	C282	G2	6	E7	R208	B4	7	G1	R532	C1	11	B8	U118	E3	5	D1	U402	B1	1	O7	U611	E4	3	N3
C107	E1	12	C4	C162	G3	12	L4	C218	F4	12	E6	C283	G1	6	E7	R209	B5	7	F1	R533	C2	11	B9	U119	E4	5	D1	U403	B1	1	O7	U612A	F4	1	K6
C108	F1	12	D4	C163	G3	12	M4	C219	F4	12	A6	C284	G1	6	E7	R221	F3	8	E6	R534	C1	11	A3	U120	F1	6	B8	U404	C1	1	O8	U612B	H1	3	K6
C109	F1	12	D4	C164	G3	12	N4	C220	F4	12	A10	C285	G4	12	F7	R222	F3	8	E6	R535	C1	11	A4	U130	G1	5	C7	U405	E3	1	M5	U612C	F4	1	K6
C110	F1	12	E4	C165	C3	12	O3	C221	G4	12	M5	CR550	B4	11	L5	R223	G2	8	E6	R540	F2	11	A3	U140	F2	4	K10	U406	E4	1	L6	U612D	F4	1	K6
C111	G1	12	F4	C166	C3	12	P3	C222	F2	12	P1	CR551	B5	11	L5	R231	F3	7	G6	R541	E1	11	A4	U141	F2	4	L8	U407	C1	2	N6	U613	D5	3	P1
C112	G1	12	F4	C167	D3	12	L1	C223	F2	12	O1	CR552	B4	11	L3	R232	F3	7	G6	R542	G1	11	A1	U200	B1	8	F8	U408	C2	2	O8	U614	D4	3	O1
C113	G1	12	G4	C168	D3	12	O7	C224	G2	12	O1	CR553	B4	11	L4	R233	G2	7	G6	R543	G1	11	A1	U201	B2	8	G8	U409	E3	2	N9	U617	E1	3	N1
C114	C2	12	H4	C169	D3	12	K7	C225	G2	12	M1	DL500	C2	11	B5	R240	G3	4	K7	R544	D1	11	A4	U202	B3	8	E4	U410	E4	2	L6	U619	E3	3	M1
C115	C2	12	I4	C170	E3	12	K4	C230	D4	12	A2	DL501	C3	11	B5	R241	G4	4	K4	R550	A4	11	L4	U203	B4	8	E4	U411A	C3	1	N6	U621	E4	3	N1
C116	D2	12	I4	C171	E3	12	B10	C231	D4	12	A1	DL510	B1	11	B8	R300	B2	10	H10	R551	A4	11	L4	U204	B4	8	E2	U411B	E1	2	N6	U700	C2	4	L5
C117	D2	12	K4	C172	E3	12	C10	C232	D4	12	A3	DL511	B2	11	B9	R301	B2	10	H10	R552	B4	11	L4	U205	B1	7	G8	U411C	E2	2	N6	U701	C2	4	L4
C118	D2	12	L8	C173	F3	12	D10	C233	E4	12	A6	J1	A1	1	P8	R302	B3	10	H2	R553	B5	11	L5	U206	B2	7	H8	U411D	E2	2	N6	U702	C3	4	L2
C119	E2	12	K8	C174	F3	12	D10	C234	E4	12	A3	J2	A1	12	E1	R303	B4	10	H1	R554	B5	11	K4	U207	B3	7	F4	U412A	C4	2	M6	U703	C3	4	L1
C120	E2	12	J8	C175	F3	12	E10	C235	E4	12	D6	J3	H4	6	A8	R304	B5	10	G1	R555	C5	11	L4	U208	B4	7	G4	U412B	C5	2	M6	U704	E3	4	M7
C121	E2	12	I8	C176	G3	12	F10	C236	F4	12	B6	J4	H4	10	A11	R305	B2	9	I10	R556	C4	11	L2	U209	B4	7	F2	U412C	C5	2	M6	U705	D3	4	M9
C122	F2	12	I8	C177	G3	12	G10	C237	F4	12	G6	J5	E5	1	O1	R306	B2	9	J10	R557	C4	11	L2	U210	E1	8	E10	U414A	B1	4	K6	U706	E4	4	N7
C123	F2	12	H8	C178	G3	12	H10	C238	F4	12	E6	J500	C2	11	A5	R307	B3	9	J2	R558	C4	11	L3	U211	E2	8	F10	U414B	B1	4	K6	U707	D4	4	M7
C124	F2	12	G8	C179	C3	12	H10	C239	G4	12	J6	J501	C2	11	A5	R308	B4	9	I1	R559	B4	11	J1	U212	E2	8	F2	U414C	B1	4	K6	U903A	E11	1	A4
C125	G2	12	F8	C180	C3	12	I10	C240	D4	12	I6	J510	C1	11	B8	R309	C5	9	H1	R600	B1	3	P2	U213	E3	8	F1	U414D	B1	4	K6	U903B	F11	1	A4
C126	G2	12	F8	C181	D3	12	J10	C241	D4	12	G6	J511	C1	11	B9	R320	F3	10	H6	R602	C3	3	P2	U214	E4	8	E1	U414E	B1	4	K6	W14	A1	1	
C127	G2	12	E8	C182	D3	12	K10	C242	D4	12	A8	P500	C2	11		R321	F3	10	H6	R604	C2	3	P4	U215	E1	7	F10	W15	H4	10					
C128	C2	12	D8	C183	D3	12	K10	C243	E4	12	B8	P501	C3	11		R322	F3	10	I6	R606	F1	3	M4	U216	E2	7	G10	W16	H4	6					
C129	C2	12	C8	C184	E3	12	O8	C244	E4	12	A9	P510	C1	11		R323	G2	10	H6	R608	F2	3	N4	U217	E2	7	G2	W292	A1	12					
C130	D2	12	N1	C185	E3	12	O8	C245	E4	12	B9	P511	C2	11		R330	F3	9	J6	R610	F4	3	O4	U218	E3	7	G1	U500A	E2	11	A2				
C131	D2	12	M2	C186	E3	12	A1	C246	F4	12	E6	Q400	D4	2	L7	R331	F3	9	J6	R700	C3	4	L4	U219	E4	7	F1	U500B	E3	11	A2				
C132	D2	12	O2	C187	F3	12	O7	C247	F4	12	I6	Q401	C3	2	L7	R332	F3	9	J6	R701	B1	4	L5	U220	G1	8	E8	U501	E3	11	A2				
C133	E2	12	N8	C188	F3	12	N7	C248	F4	12	G6	Q550	B4	11	L4	R333	G2	9	J6	R702	C4	4	L2	U230	G1	7	G8	U502	F5	11	B10				
C134	E2	12	M9	C189	F3	12	M7	C249	G4	12	J6	Q551	B4	11	L5	R340	G4	4	J2	R704	E4	4	M7	U240	F3	4	K7	U503	G5	11	B1				
C135	E2	12	N7	C190	G3	12	K6	C250	A2	12	A10	Q552	B4	11	L3	R341	G5	4	K2	R706	C5	4	N7	U241	F3	4	L4	U504A	H4	11	A1				
C136	F2	12	N2	C191	G3	12	M5	C251	B2	12	D4	R100	B2	6	B10	R400	D5	2	M4	R707	C5	4	M7	U300	B1	10	I8	U504B	G1	11	A1				
C137	C2	12	P2	C192	G3	12	M5	C252	A2	12	G10	R101	B2	6	C10	R401	C3	2	P8	R708	E5	4	O7	U301	B2	10	J8	U504C	H1	11	A1				
C138	C2	12	O2	C193	C4	12	N5	C253	B2	12	A10	R102	B3	6	C2	R402	D4	2	L7	TP100	A1	12	B1	U302	B3	10	H4	U504D	G1	11	A1				
C139	D2	12	B2	C194	C4	12	N5	C254	A2	12	J4	R103	B4	6	C1	R403	D4	2	L8	TP101	B1	12	H1	U303	B4	10	H4	U505A	C2	11	A5				
C140	D2	12	C1	C195	D4	12	O5	C255	B2	12	D4	R104	B5	6	C1	R404	C3	2	L7	TP102	B1	12	P1	U304	B4	10	H2	U505B	D2	11	A5				
C141	D2	12	C1	C196	D4	12	O5	C260	F5	12	A11	R105	C2	5	C10	R405	C3	2	L7	TP103	B1	12	P9	U305	B1	9	K8	U506A	B1	11	A8				
C142	E2	12	D1	C197	D4	12	O4	C261	F5	12	A2	R106	C2	5	D10	R406	D4	2	L7	TP104	C1	12	G11	U306	B2	9	L8	U506B	C1	11	A8				
C143	E2	12	D1	C198	E4	12	O4	C262	G4	12	B11	R107	C3	5	D2	R407	E1	2	N6	TP105	C1	12	B10	U307	B3	9	I4	U507A	E3	11	A4				
C144	E2	12	C2	C199	E4	12	N4	C263	G4	12	B1	R108	C4	5	D1	R409	F4	2	N9	U100	B1	6	C8	U308	B4	9	J4	U507B	D1	11	A4				
C145	F2	12	D2	C200	D5	12	B1	C264	H3	12	J6	R109	C5	5	D1	R410	F4	2	L6	U101	B2	6	D8	U309	B4	9	I2	U507C	D2	11	A4				
C146	F2	12	F2	C201	D5	12	A3	C265	H3	12	J7	R121	F3	6	B6	R500	D2	11	A2	U102	B3	6	B4	U310	E1	10	H10	U507D	H4	11	A4				
C147	F2	12	E1	C202	D5	12	C7	C266	H3	12	H7	R122	F3	6	B6	R501	D2	11	A2	U103	B4	6	C4	U311	E2	10	I10	U508	G3	11	B1				
C148	G2	12	F1	C203	E5	12	E7	C267	G4	12	F7	R123	G2	6	B6	R502	E4	11	A2	U104	B4	6	B2	U312	E3	10	I2	U509	G4	11	A1				
C149	G2	12	F1	C204	E5	12	H7	C270	G2																										



**SCHEMATIC DIAGRAM <1>  
RAM BOARD**

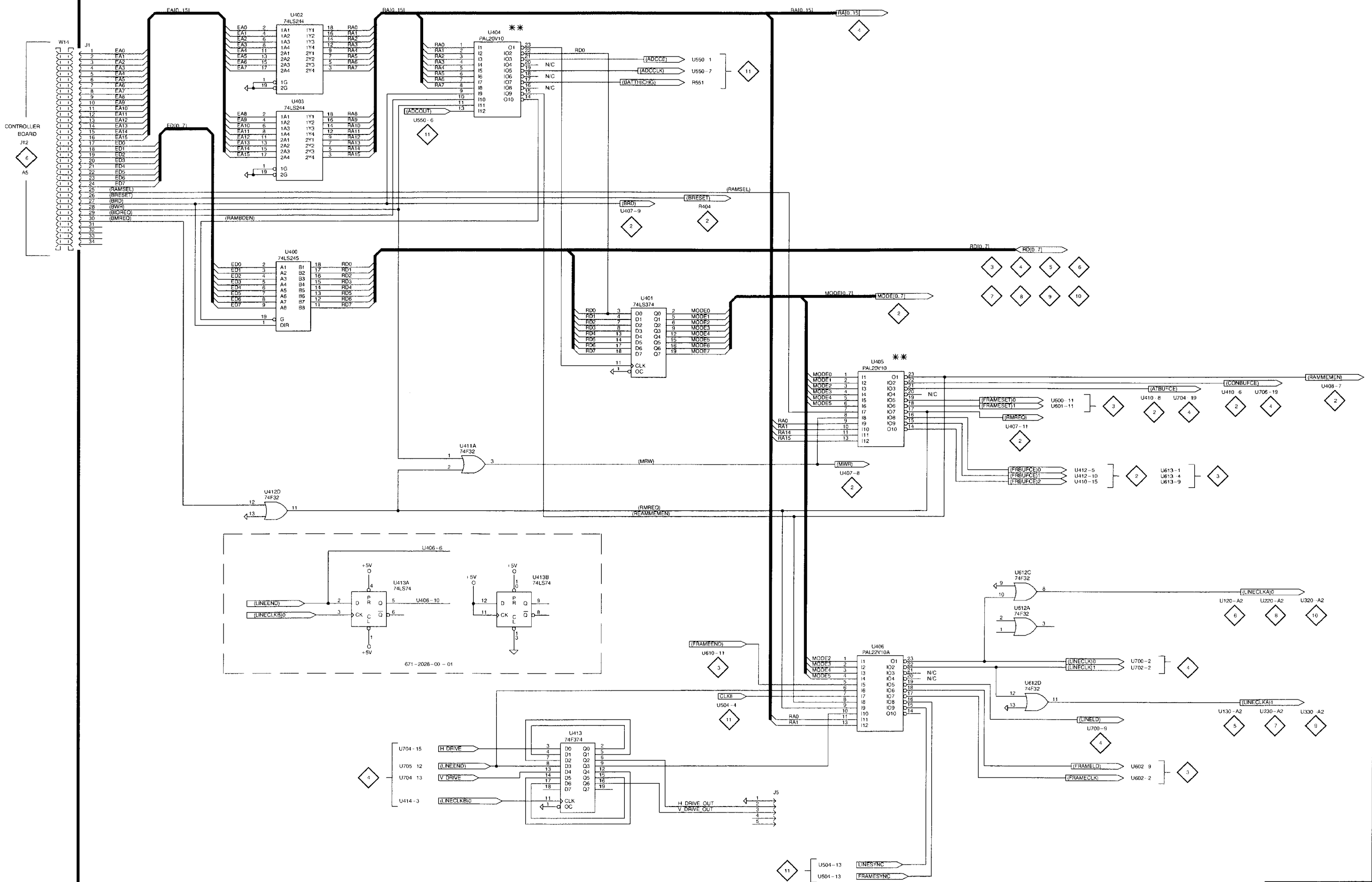
The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** Partial Assembly A17 also shown on Schematics 2 through 12.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J1	A1	P7
J5	E5	O1
U400	B2	O6
U401	D2	O6
U402	B1	O7
U403	B1	O7
U404	C1	O8
U405	E3	M5
U406	E4	L6
U411A	C3	N6
U412D	B3	M6
U413	D5	M9
U413A *	D4	N9
U413B *	C4	N9
U612A	F4	K6
U612C	F4	K6
U612D	F4	K6
W14		A1

\* See parts list for serial number ranges.

Some parts may be shown on 671-2028-00 - 03 board illustration.



NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

P/O A17 RAM BOARD



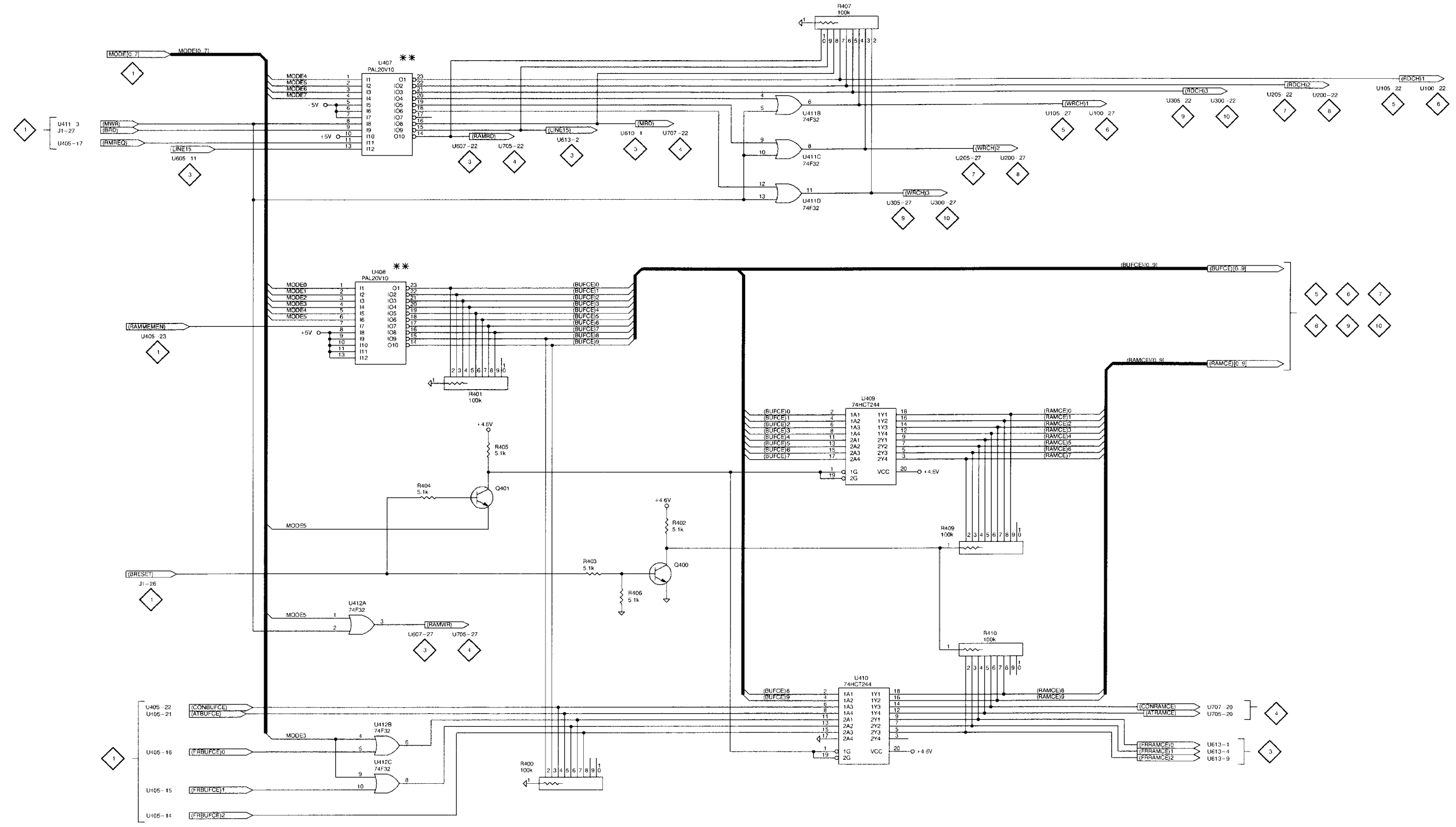
**SCHEMATIC  
DIAGRAM <2>  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1, 3 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
Q400	D4	L7
Q401	C3	L7
R400	D5	M4
R401	C3	P9
R402	D4	L7
R403	D4	L8
R404	C3	L7
R405	C3	L7
R406 *	D4	L7
R407	E1	N6
R409	F4	ON
R410	F4	L6
U407	C1	O6
U408	C2	O8
U409	E3	N9
U410	E4	L6
U411B	E1	N6
U411C	E2	N6
U411D	E2	N6
U412A	C4	M6
U412B	C5	M6
U412C	C5	M6

\* See parts list for earlier serial number ranges.



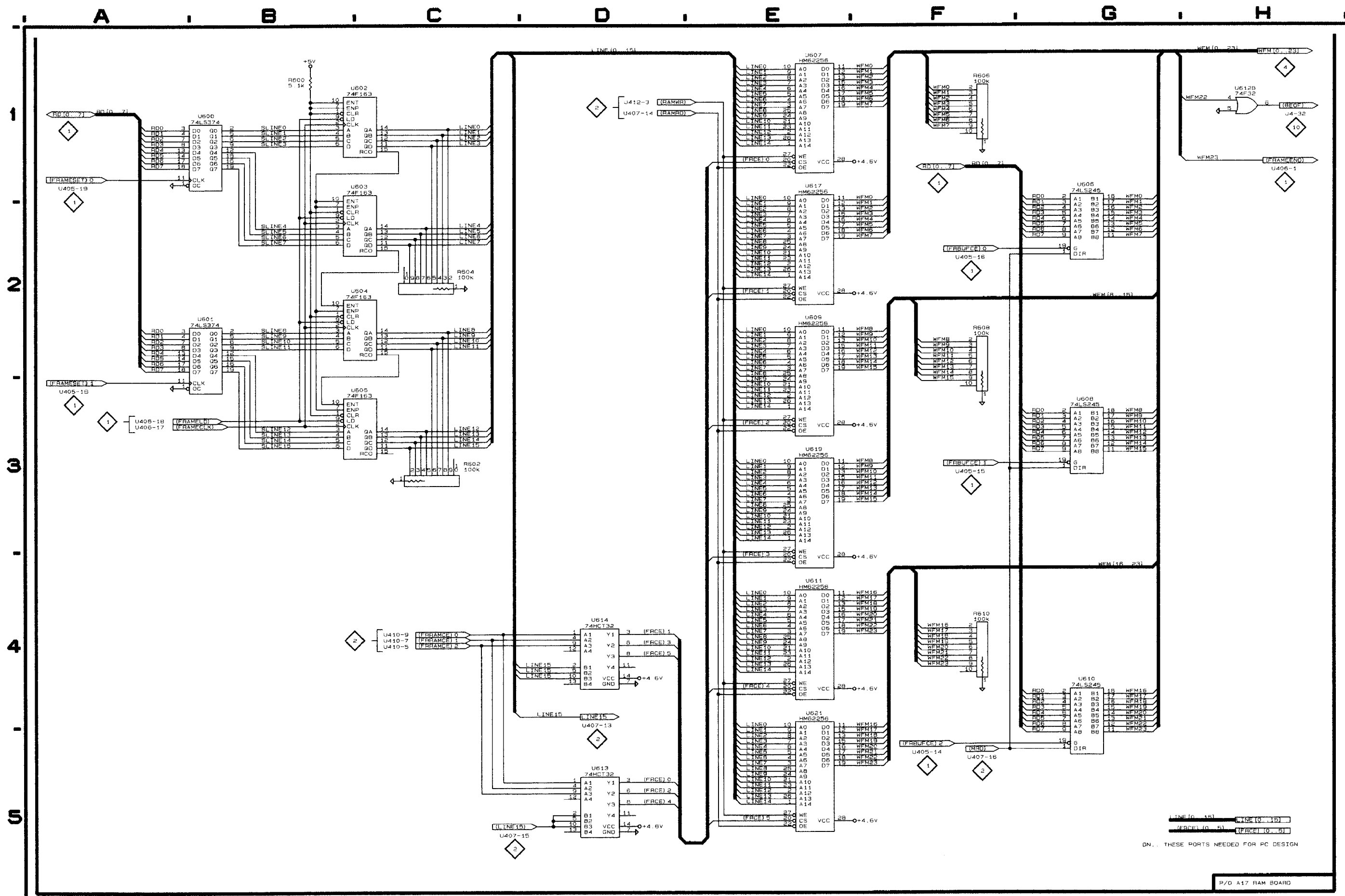
NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

**SCHEMATIC DIAGRAM <3>  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1, 2, 4 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R600	B1	P2
R602	C3	P3
R604	C2	P4
R606	F1	M5
R608	F2	N5
R610	F4	O5
U600	B1	O5
U601	B2	O5
U602	B1	P4
U603	B1	O4
U604	B2	O3
U605	B3	P3
U606	G1	M5
U607	E1	O3
U608	G3	N5
U609	E2	M3
U610	G4	N5
U611	E4	N3
U612B	H1	K6
U613	D5	P2
U614	D4	O2
U617	E1	O2
U619	E3	M2
U621	E4	N2



P/O A17 RAM BOARD

DN... THESE PORTS NEEDED FOR PC DESIGN

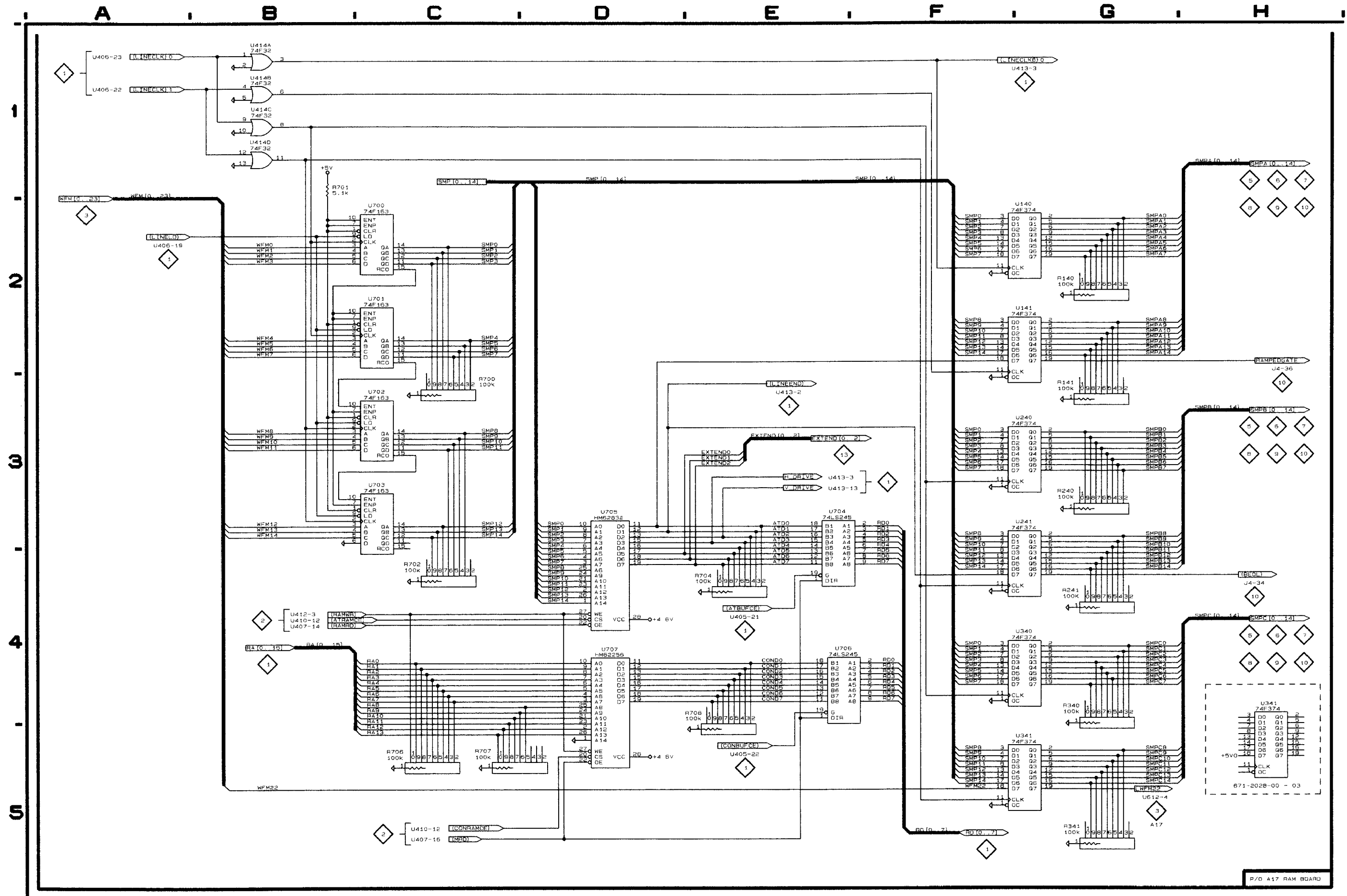
### SCHEMATIC DIAGRAM < 4 > RAM BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1, 2, 4 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R140	G2	K10
R141	G3	L8
R240	G3	K7
R241	G4	K4
R340	G4	J2
R341	G5	K2
R700	C3	L4
R701	B1	L5
R702	C4	L2
R704	E4	M7
R706	C5	N7
R707	C5	M7
R708	E5	O7
U140	F2	K10
U141	F2	L8
U240	F3	K7
U241	F3	L4
U340	F4	K4
U341	F5	K4
U414A	B1	K6
U414B	B1	K6
U414C	B1	K6
U414D	B1	K6
U612A *	E3	K6
U700	C2	L5
U701	C2	L4
U702	C3	L2
U703	C3	L1
U704	E3	M7
U705	D3	M9
U706	E4	N7
U707	D4	M7

\* See parts list for serial number ranges.



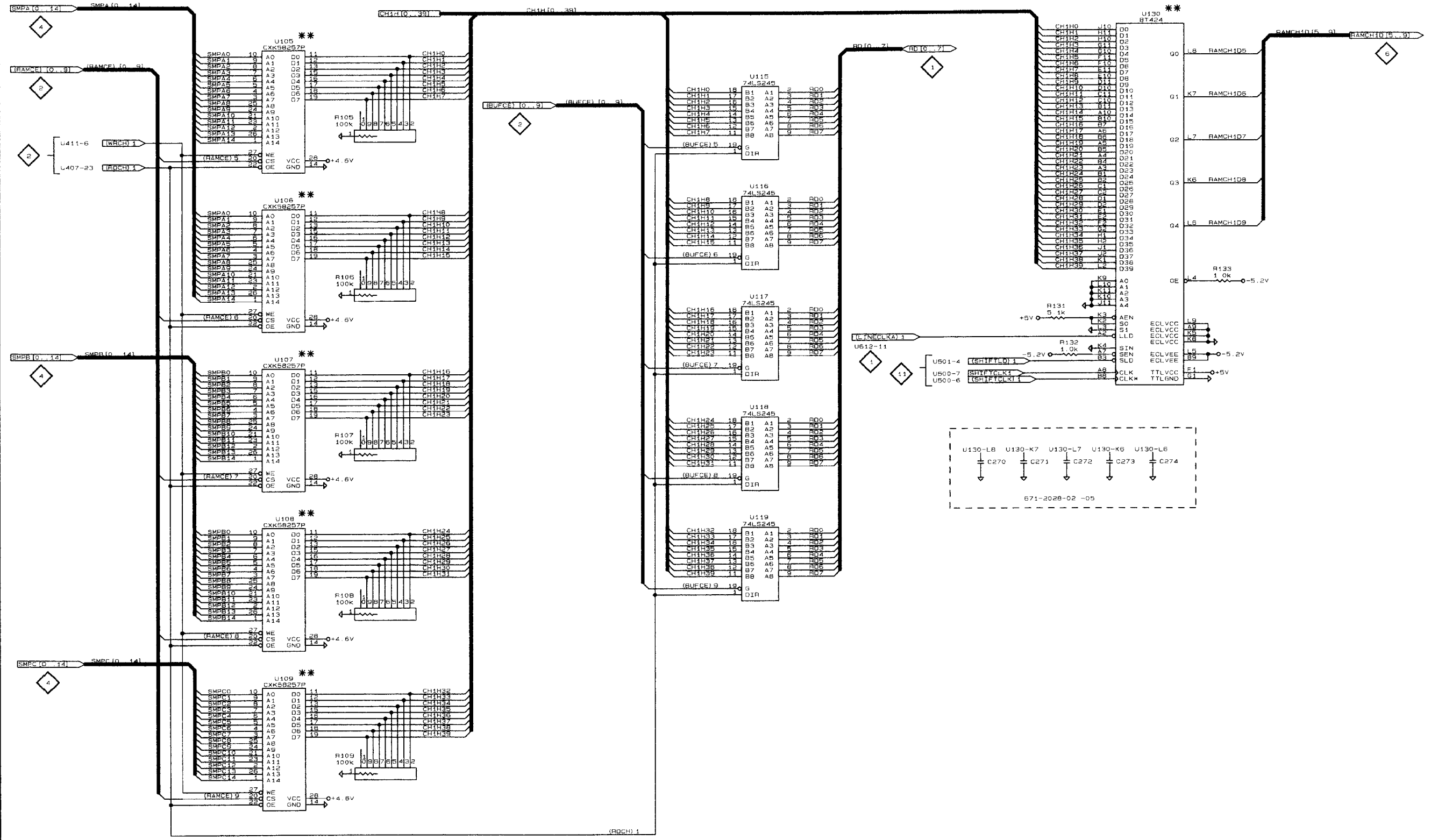
### SCHEMATIC DIAGRAM <5> RAM BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1, 2, 3, 4, 6 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C270 **	G2	D7
C271 **	G2	D7
C272 **	G2	D7
C273 **	G1	D7
C274 **	G1	D7
R105	C2	C10
R106	C2	D10
R107	C3	D2
R108	C4	D1
R109	C5	D1
R131	F2	C6
R132	F3	D6
R133	G2	C6
U105	B1	D8
U106	B2	E8
U107	B3	C4
U108	B4	D4
U109	B4	C2
U115	E1	D10
U116	E2	D10
U117	E2	D2
U118	E3	D1
U119	E4	D1
U130	G1	C7

\*\* See parts list for serial number ranges.



NOTE: \*\*  
SEE PARTS LIST FOR EARLIER VALUES  
AND SERIAL NUMBER RANGES.

671-2028-00 - 07  
P/O A17 RAM BOARD



### SCHEMATIC DIAGRAM < 6 > RAM BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1, 2, 3, 4, 5, 7 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C275 **	G2	B7
C276 **	G2	B7
C277 **	G2	B7
C278 **	G1	B7
C279 **	G1	B7
J3	H4	A8
R100	B2	B10
R101	B2	C10
R102	B3	C2
R103	B4	C1
R104	B5	C1
R121	F3	B6
R122	F3	B6
R123	G2	B6
U100	B1	C8
U101	B2	D8
U102	B3	B4
U103	B4	C4
U104	B4	B2
U110	E1	B10
U111	E2	C10
U112	E2	C2
U113	E3	C1
U114	E3	C1
U120	F1	B8
W16	H4	

\*\* See parts list for  
serial number ranges.

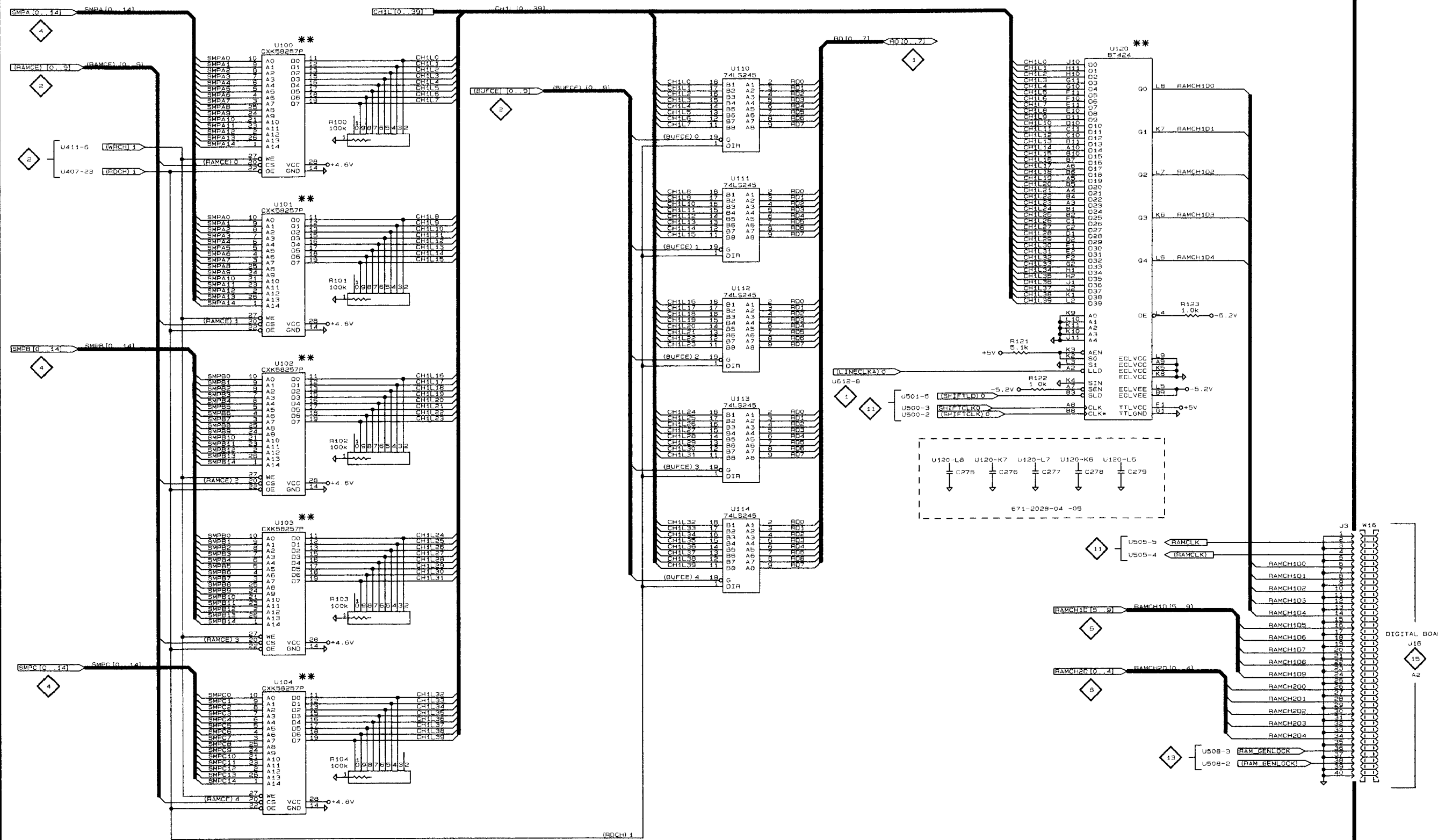
1

2

3

4

5



NOTE: \*\*  
 SEE PARTS LIST FOR EARLIER VALUES  
 AND SERIAL NUMBER RANGES

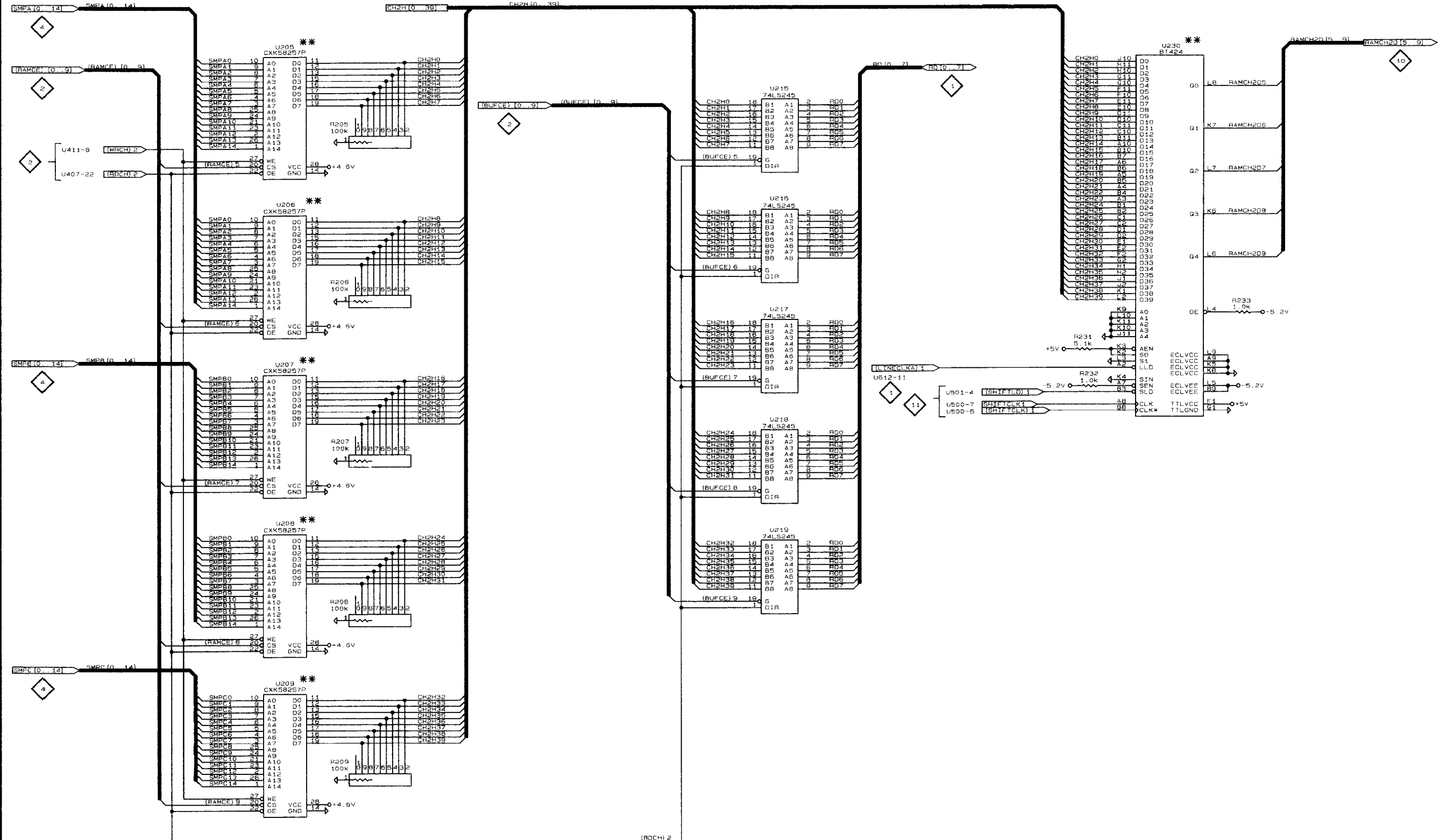
P/O A17 RAM BOARD

**SCHEMATIC DIAGRAM <7>  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1 through 6 and 8 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R205	B2	F10
R206	B2	G10
R207	B3	G2
R208	B4	G1
R209	B5	F1
R231	F3	G6
R232	F3	G6
R233	G2	G6
U205	B1	G8
U206	B2	H8
U207	B3	F4
U208	B4	G4
U209	B4	F2
U215	E1	F10
U216	E2	G10
U217	E2	G2
U218	E3	G1
U219	E4	F1
U230	G1	G8



NOTE: \*\*  
SEE PARTS LIST FOR EARLIER VALUES  
AND SERIAL NUMBER RANGES.

P/O A17 RAM BOARD

**SCHEMATIC DIAGRAM < 8 >  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1 through 7 and 9 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C280 **	G2	E7
C281 **	G2	E7
C282 **	G2	E7
C283 **	G1	E7
C284 **	G1	E7
R200	B2	E10
R201	B2	E10
R202	B3	F2
R203	B4	E1
R204	B5	E1
R221	F3	E6
R222	F3	E6
R223	G2	E6
U200	B1	F8
U201	B2	G8
U202	B3	E4
U203	B4	E4
U204	B4	E2
U210	E1	E10
U211	E2	F10
U212	E2	F2
U213	E3	F1
U214	E4	E1
U220	G1	E8

**\*\* See parts list for earlier serial number ranges.**

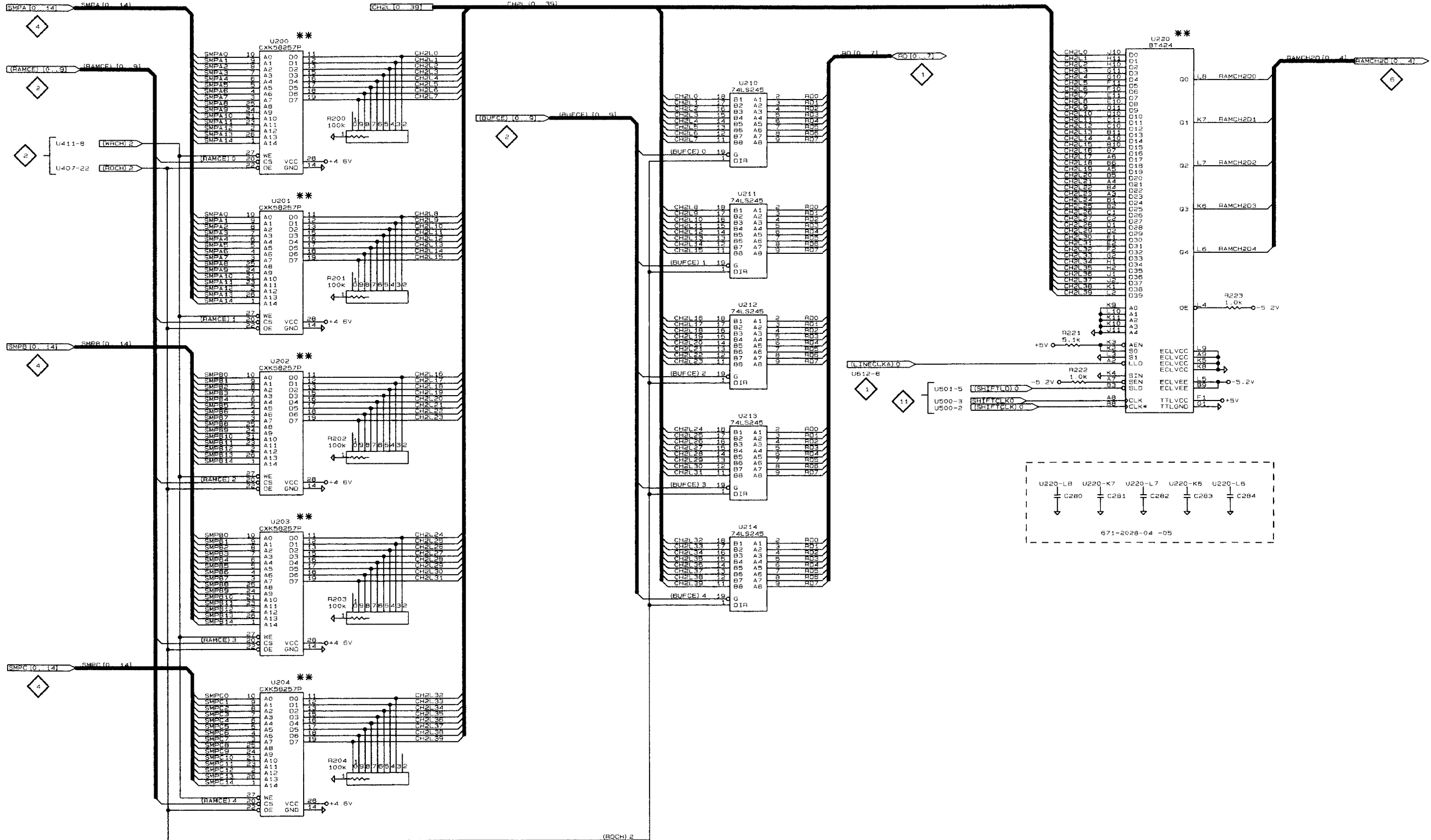
1

2

3

4

5



NOTE: \*\*  
 SEE PARTS LIST FOR EARLIER VALUES  
 AND SERIAL NUMBER RANGES.

P/O 417 RAM BOARD

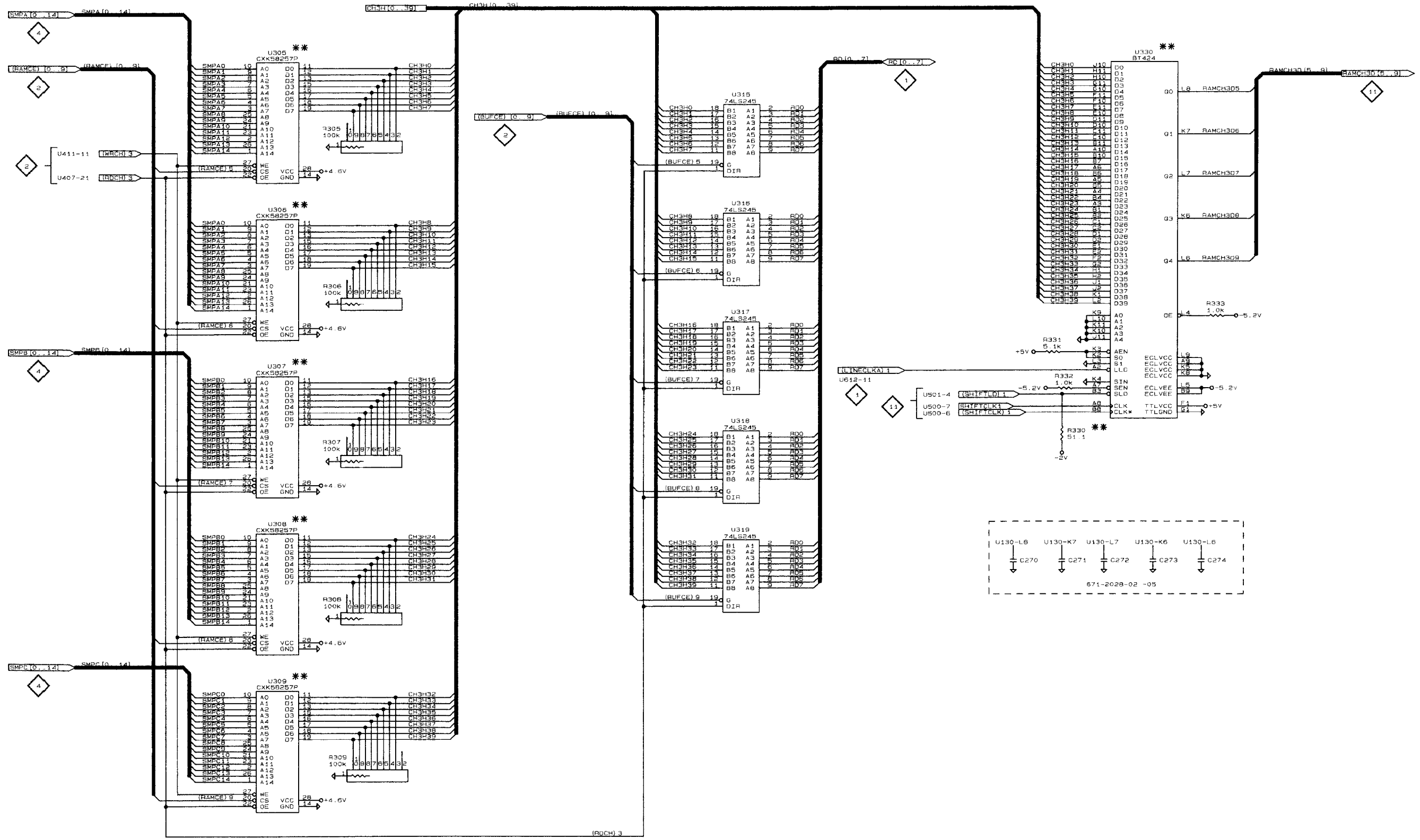
**SCHEMATIC DIAGRAM <9>  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1 through 8 and 10 through 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C270 *	F4	E7
C271 *	F4	E7
C272 *	F4	E7
C273 *	G4	E7
C274 *	G4	E7
R305	B2	I10
R306	B2	J10
R307	B3	J2
R308	B4	I1
R309	C5	H1
R330	F3	J6
R331	F3	J6
R332	F3	J6
R333	G2	J6
U305	B1	K8
U306	B2	L8
U307	B3	I4
U308	B4	J4
U309	B4	I3
U315	E1	J10

**\*See parts list for serial number ranges.**



NOTE: \*\*  
SEE PARTS LIST FOR EARLIER VALUES  
AND SERIAL NUMBER RANGES.

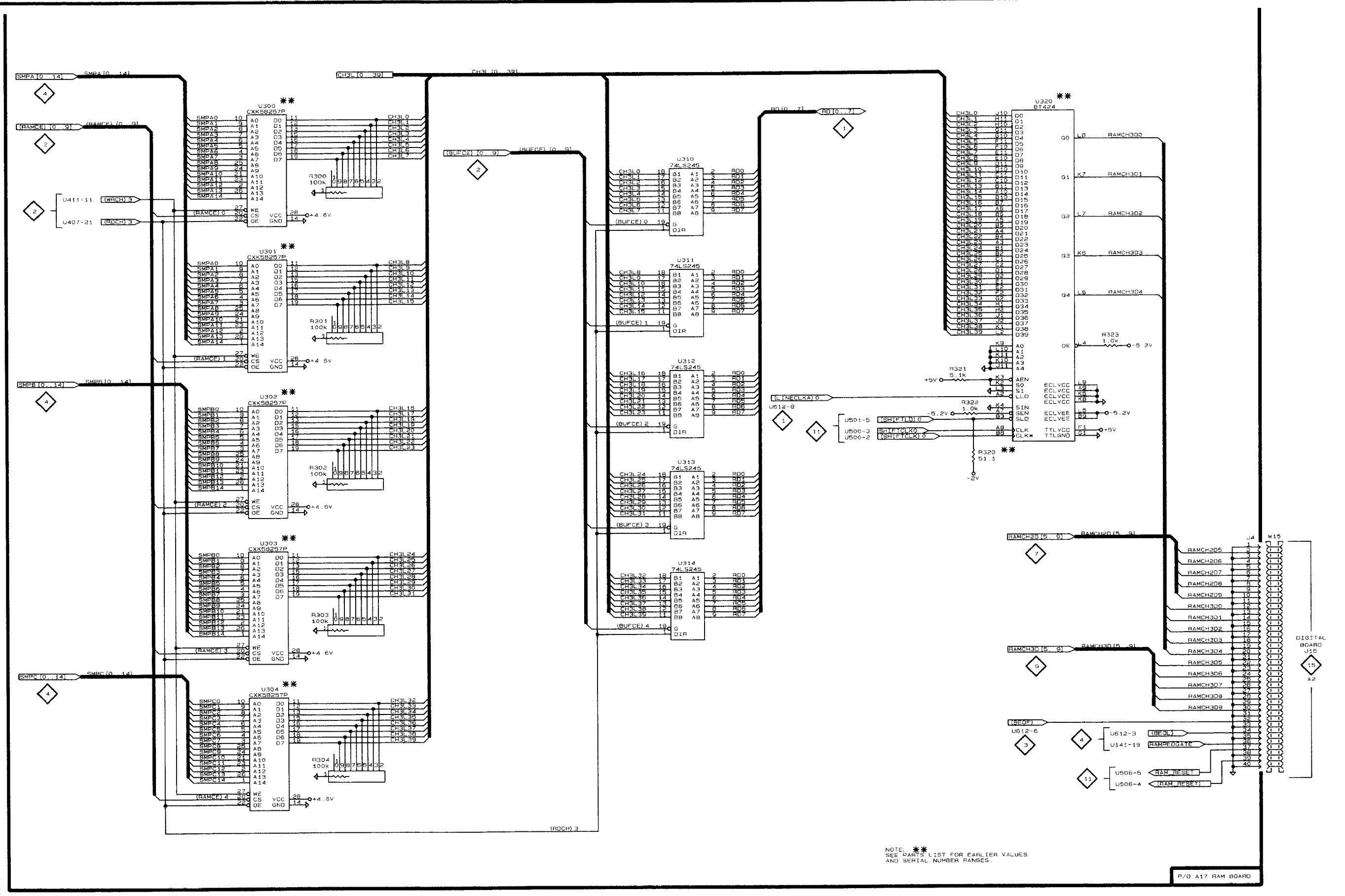


**SCHEMATIC DIAGRAM <10>  
RAM BOARD**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1 through 9, 11, 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
J4	H4	A11
R300	B2	H10
R301	B2	H10
R302	B3	H2
R303	B4	H1
R304	B5	G1
R320	F3	I6
R321	F3	H6
R322	F3	I6
R323	G2	H6
U300	B1	I8
U301	B2	J8
U302	B3	H4
U303	B4	H4
U304	B4	H2
U310	E1	H10
U311	E2	I10
U312	E3	I2
U313	E3	H1
U314	E4	G1
U320	G1	H8
W15	H4	



NOTE: \*\*  
SEE PARTS LIST FOR EARLIER VALUES  
AND SERIAL NUMBER RANGES.

P/O A17 RAM BOARD

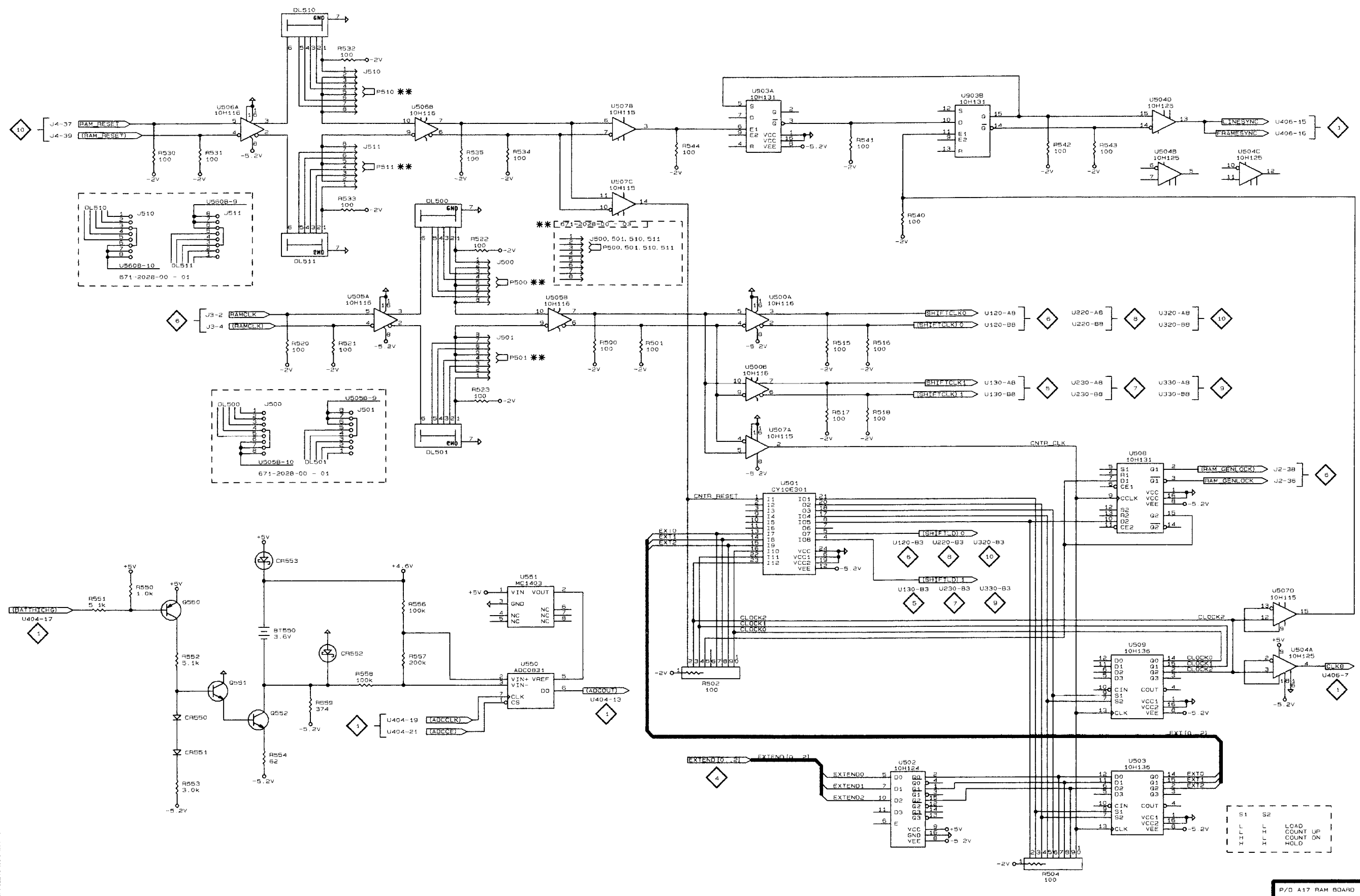
### SCHEMATIC DIAGRAM <11> RAM BOARD

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** *Partial Assembly A17 also shown on Schematics 1 through 10 & 12.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
BT550	B4	J2	R542	G1	A1
			R543	G1	A1
CR550	B4	L5	R544 *	D1	A4
CR551	B5	L5	R550	A4	L4
CR552	B4	L3	R551	A4	L4
CR553	B4	L4			
			R552	B4	L4
DL500	C2	B5	R553	B5	L5
DL501	C3	B5	R554	B5	K4
DL510	B1	B8	R555 *	C5	K4
DL511	B2	B9	R556	C4	L2
			R557	C4	L2
J500	C2	A5	R558	C4	L3
J501	C2	A5	R559	B4	J1
J510 *	B1	B8			
J511 *	B1	B9	U500A	E2	A2
			U500B	E3	A2
P500	C2		U501	E3	A2
P501	C3				
P510	C1		U502	F5	B10
P511	C2		U503	G5	B1
			U504A	H4	A1
Q550	B4	L4	U504B	G1	A1
Q551	B4	L5	U504C	H1	A1
Q552	B4	L3			
			U504D	G1	A1
R500	D2	A2	U505A	C2	A5
R501	D2	A2	U505B	D2	A5
R502	E4	A2	U506A	B1	A8
R504	F5	A1	U506B	C1	A8
R515	E2	I7			
			U507A	E3	A4
R516	F2	I7	U507B	D1	A4
R517	E3	K7	U507C	D2	A4
R518	F3	K7	U507D	H4	A4
R520	B2	A6	U508	G3	B1
R521	B2	A6			
			U509	G4	A1
R522	C2	A5	U550	D4	L1
R523	C3	A5	U551	D4	L3
R530	A1	A9	U903A	E1	A4
R531	B1	A9	U903B	F1	A4
R532	C1	B8			
R533	C2	B9			
R534	C1	A3			
R535	C1	A4			
R540	F2	A3			
R541	E1	A4			

\* See parts list for earlier serial number ranges.

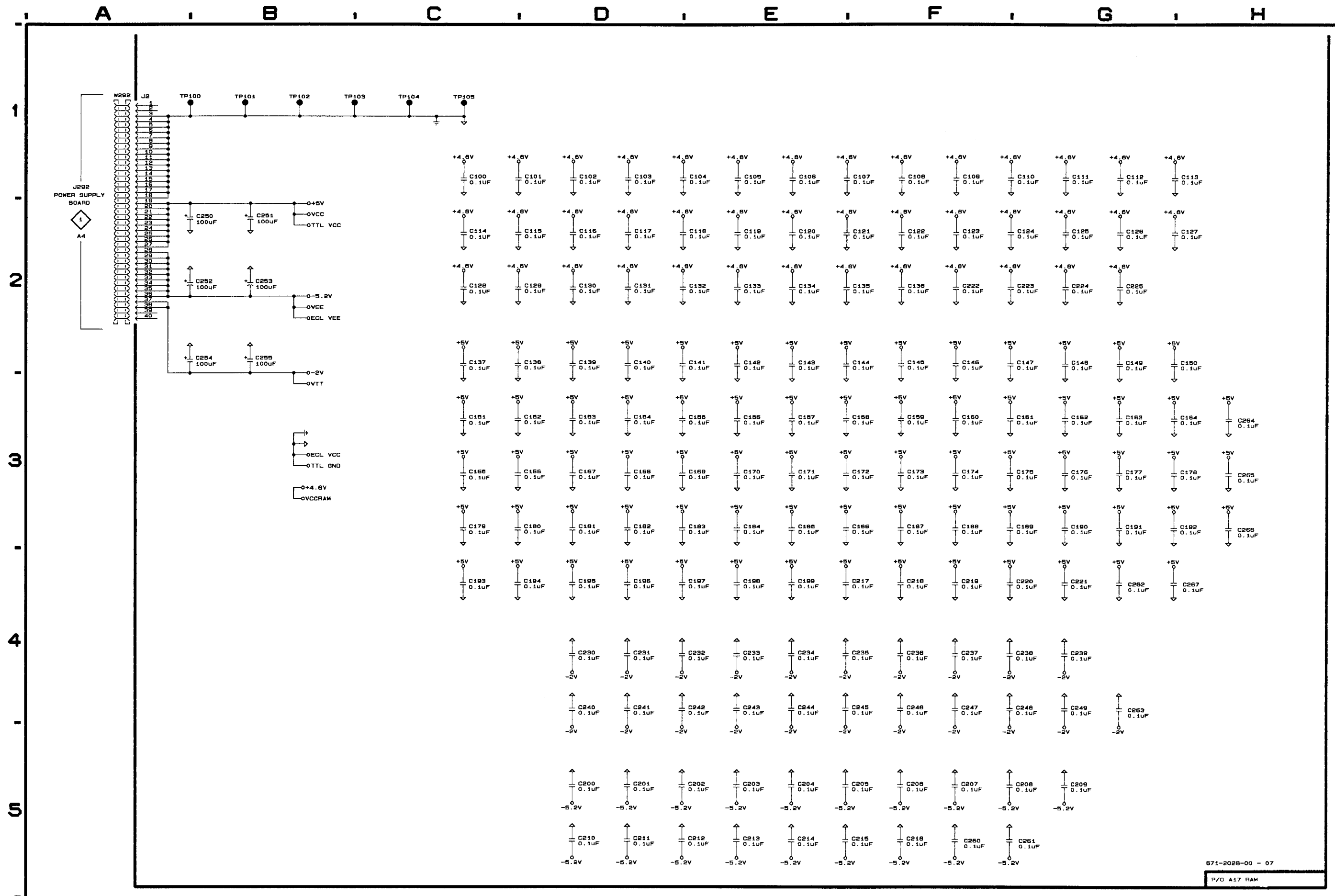


## SCHEMATIC DIAGRAM < 12 > RAM BOARD

The schematic diagram and circuit board illustration has alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A17.** Partial Assembly A17 also shown on Schematics 1 through 11.

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C100	C1	B2	C159	F3	L1	C216	F5	A3
C101	C1	C2	C160	F3	L2	C217	E4	B7
C102	D1	E2	C161	F3	L3	C218	F4	E6
C103	D1	G2	C162	G3	L4			
C104	D1	H2	C163	G3	M4	C219	F4	A6
			C164	G3	N4	C220	F4	A10
C105	E1	I2				C221	G4	M5
C106	E1	B4	C165	C3	O3	C222	F2	P1
C107	E1	C4	C166	C3	P3	C223	F2	O1
C108	F1	D4	C167	D3	L1			
C109	F1	D4	C168	D3	O7	C224	G2	O1
			C169	D3	K7	C225	G2	M1
C110	F1	E4	C170	E3	K4	C230	D4	A2
C111	G1	F4				C231	D4	A1
C112	G1	F4	C171	E3	B10	C232	D4	A3
C113	G1	G4	C172	E3	C10			
C114	C2	H4	C173	F3	D10	C233	E4	A6
			C174	F3	D10	C234	E4	A3
C115	C2	I4	C175	F3	E10	C235	E4	D6
C116	D2	I4				C236	F4	B6
C117	D2	K4	C176	G3	F10	C237	F4	G6
C118	D2	L8	C177	G3	G10			
C119	E2	K8	C178	G3	H10	C238	F4	E6
			C179	C3	H10	C239	G4	J6
C120	E2	J8	C180	C3	I10	C240	D4	I6
C121	E2	I8				C241	D4	C6
C122	F2	I8	C181	D3	J10	C242	D4	A8
C123	F2	H8	C182	D3	K10			
C124	F2	G8	C183	D3	K10	C243	E4	B8
			C184	E3	O8	C244	E4	A9
C125	G2	F8	C185	E3	O8	C245	E4	B9
C126	G2	F8				C246	F4	E6
C127	G2	E8	C186	E3	A1	C247	F4	I6
C128	C2	D8	C187	F3	O7			
C129	C2	C8	C188	F3	N7	C248	F4	G6
			C189	F3	M7	C249	G4	J6
C130	D2	N1	C190	G3	K6	C250	A2	A10
C131	D2	M2				C251	B2	D4
C132	D2	O2	C191	G3	M5	C252	A2	G10
C133	E2	N8	C192	G3	M5	C253	B2	A10
C134	E2	M9	C193	C4	N5			
			C194	C4	N5	C254	A2	J4
C135	E2	N7	C195	D4	O5	C255	B2	D4
C136	F2	N2				C260	F5	A11
C137	C2	P2	C196	D4	O5	C261	F5	A2
C138	C2	O2	C197	D4	O4	C262	G4	B11
C139	D2	B2	C198	E4	O4	C263	G4	B1
			C199	E4	N4			
C140	D2	C1	C200	D5	B1	C264	H3	J6
C141	D2	C1				C265	H3	J7
C142	E2	D1	C201	D5	A3	C266	H3	H7
C143	E2	D1	C202	D5	C7	C267	G4	F7
C144	E2	C2	C203	E5	E7			
			C204	E5	H7	J2	A1	E1
C145	F2	D2	C205	E5	H7			
C146	F2	F2				TP100	A1	B1
C147	F2	E1	C206	F5	E7	TP101	B1	H1
C148	G2	F1	C207	F5	C7	TP102	B1	P1
C149	G2	F1	C208	F5	F7	TP103	B1	P9
			C209	G5	F7	TP104	C1	G11
C150	G2	G1	C210	D5	J7	TP105	C1	B10
C151	C3	G2						
C152	C3	G1	C211	D5	J7	W292	A1	
C153	D3	H1	C212	D5	L2			
C154	D3	I1	C213	E5	B7			
			C214	E5	A1			
C155	D3	I2	C215	E5	B1			
C156	E3	K2						
C157	E3	J2						
C158	E3	K2						



671-2028-00 - 07

P/O A17 RAM





# **A17A1 LINE EXTENDER**



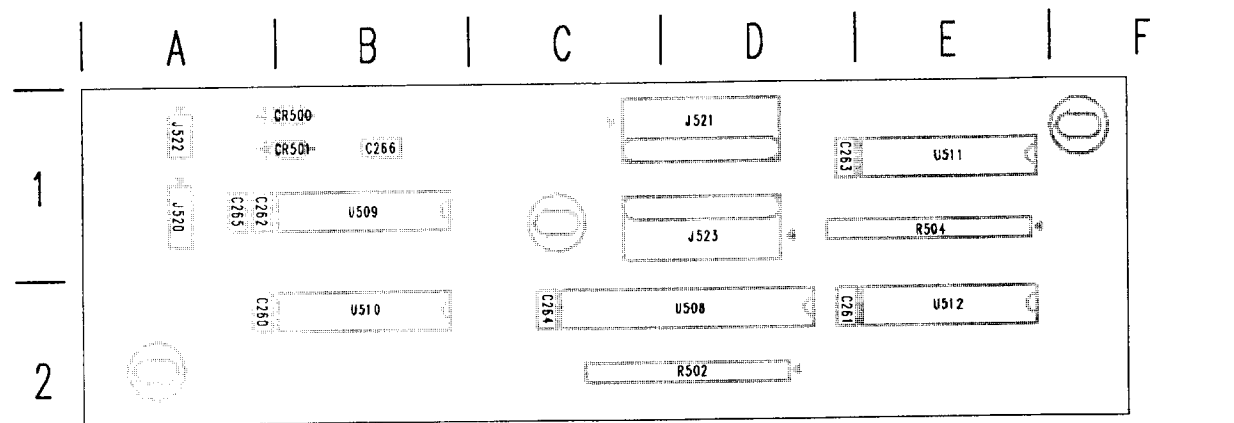




**Schematic Diagram < 1 >  
LINE EXTENDER Board**

The schematic diagram or circuit board illustration has an alpha-numeric grid to assist in locating parts within that diagram or board.

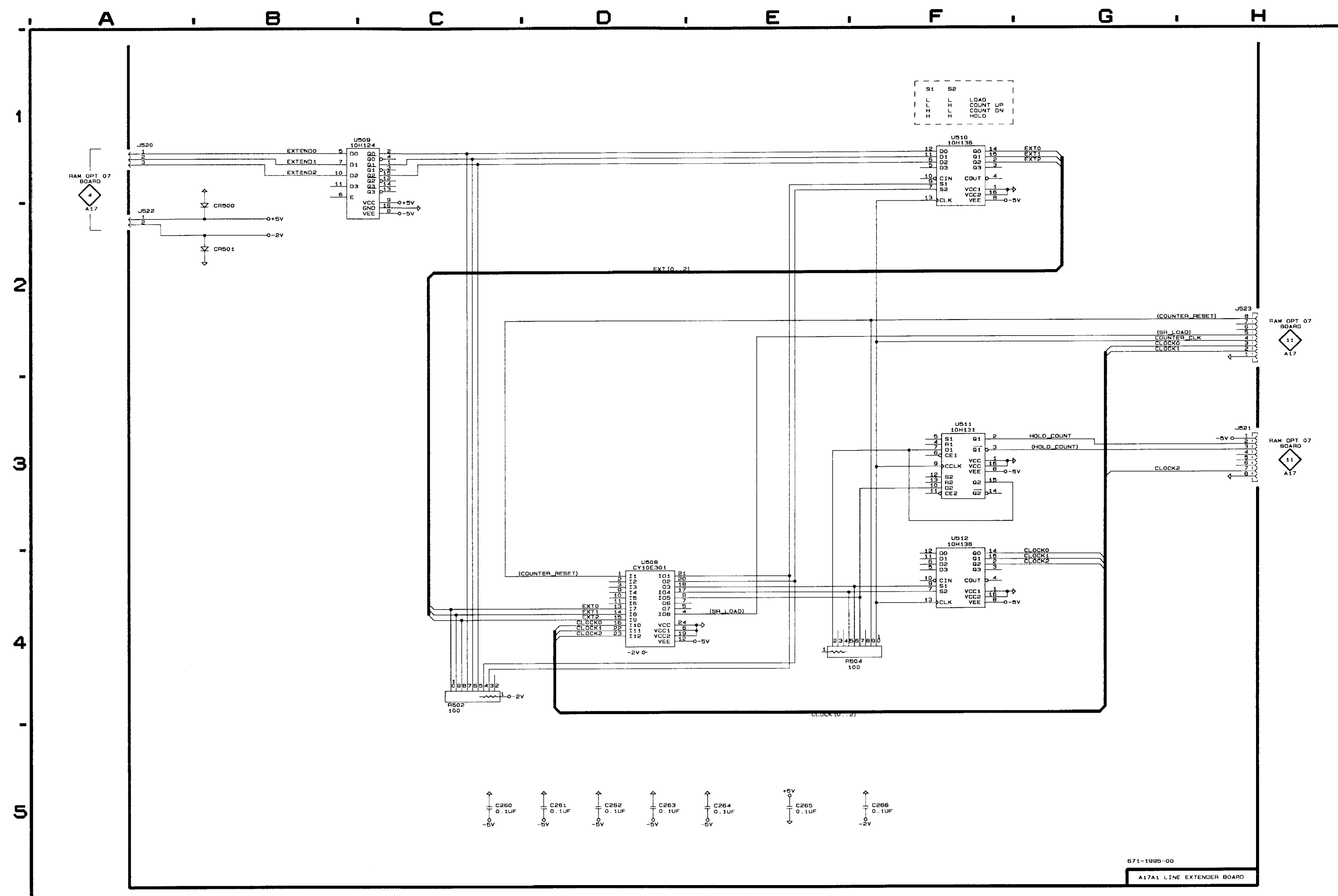
**ASSEMBLY A17A1**



**A17A1 LINE EXTENDER Board**

 **Static Sensitive Devices**  
See Maintenance Section

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C260	C5	A2
C261	D5	D2
C262	D5	A1
C263	D5	D1
C264	E5	C2
C265	E5	A1
C266	F5	B1
CR500	B2	B1
CR501	B2	B1
J520	A1	A1
J521	H3	D1
J522	A2	A1
J523	H2	D1
R502	C4	D2
R504	E4	E1
U508	D4	D2
U509	B1	B1
U510	F1	B2
U511	F3	E1
U512	F4	E2





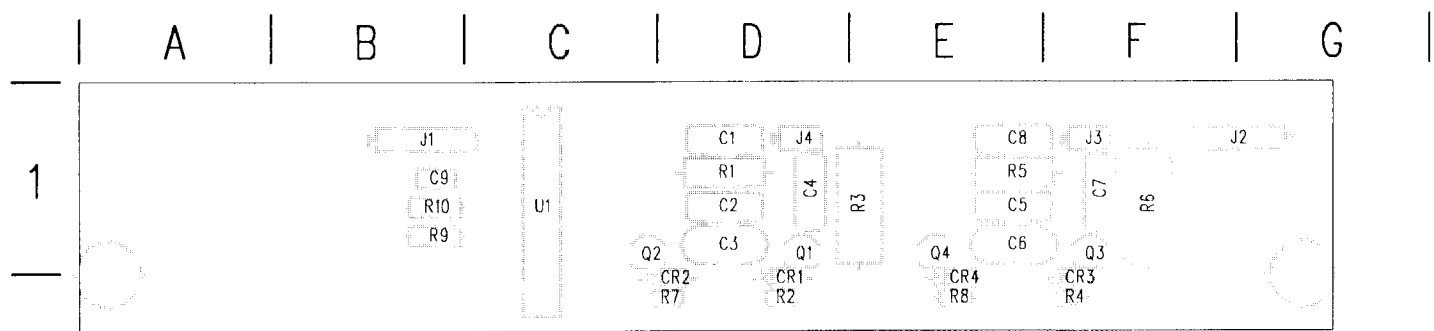


# **A10 HV DRIVE**









**A10 HV DRIVE**

**671-2264-00**

2

**Static Sensitive Devices**  
See Maintenance Section

**Schematic Diagram < 1 >  
HV DRIVE Board**

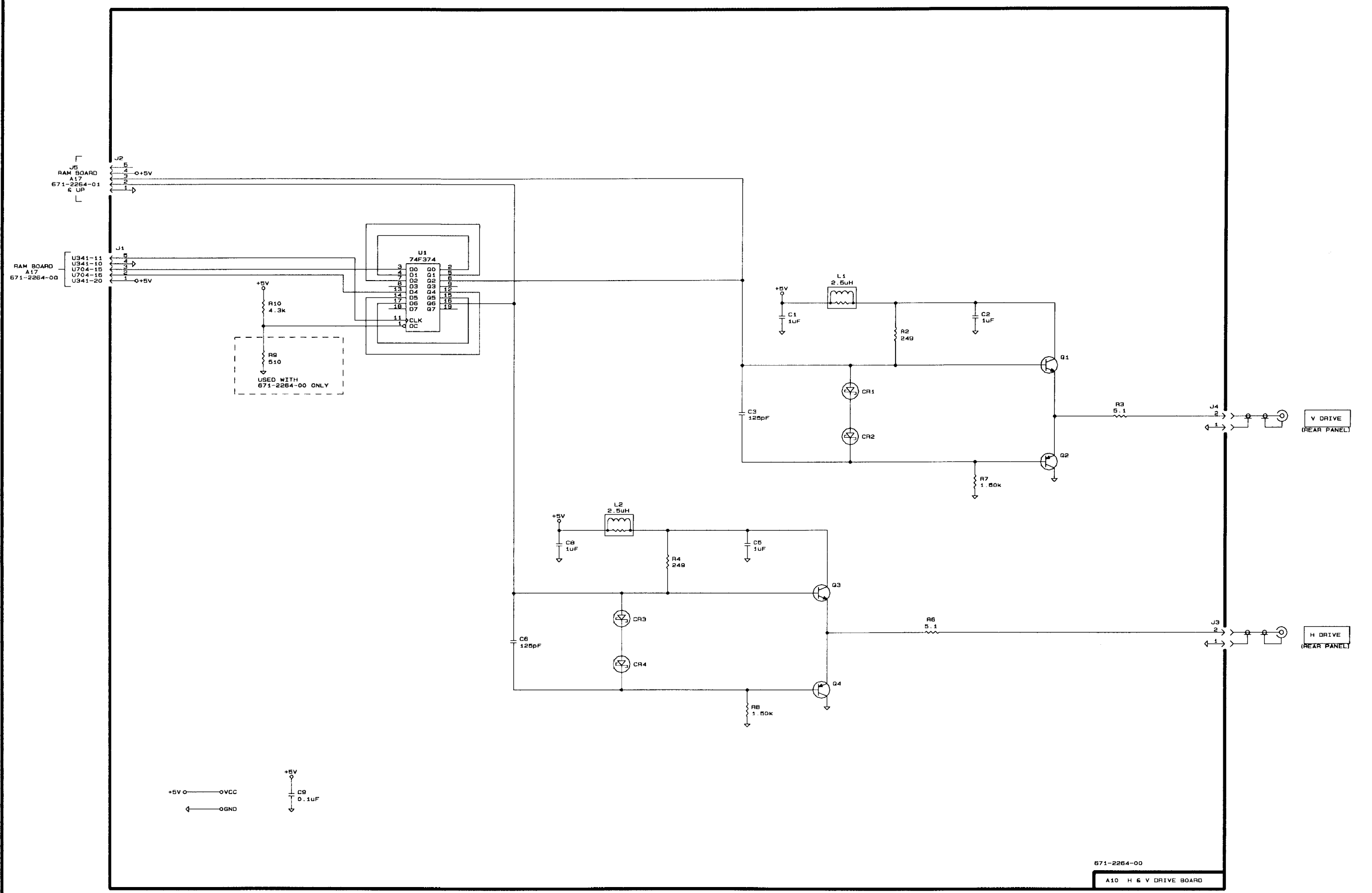
The schematic diagram or circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A10**

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C1	E2	D1
C2	F2	D1
C3	E3	D1
C5	E4	E1
C6	D4	E1
C8	D4	E1
C9	B5	B1
CR1	F3	D2
CR2	F3	D2
CR3	D4	F2
CR4	D4	E2
J1	A2	B1
J2	A1	F1
J3	H4	F1
J4	H3	D1
J1	F2	D1
J2	D3	E1
Q1	G3	D1
Q2	G3	C1
Q3	F4	F1
Q4	F4	E1
R2	F2	D2
R3	G3	E1
R4	E4	F2
R6	F4	F1
R7	F3	D2
R8	E4	E2
R9	B2	B1
R10	B2	B1
U1		C1

A B C D E F G H

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671-2264-00  
A10 H & V DRIVE BOARD





# **A31 ZONE PLATE**

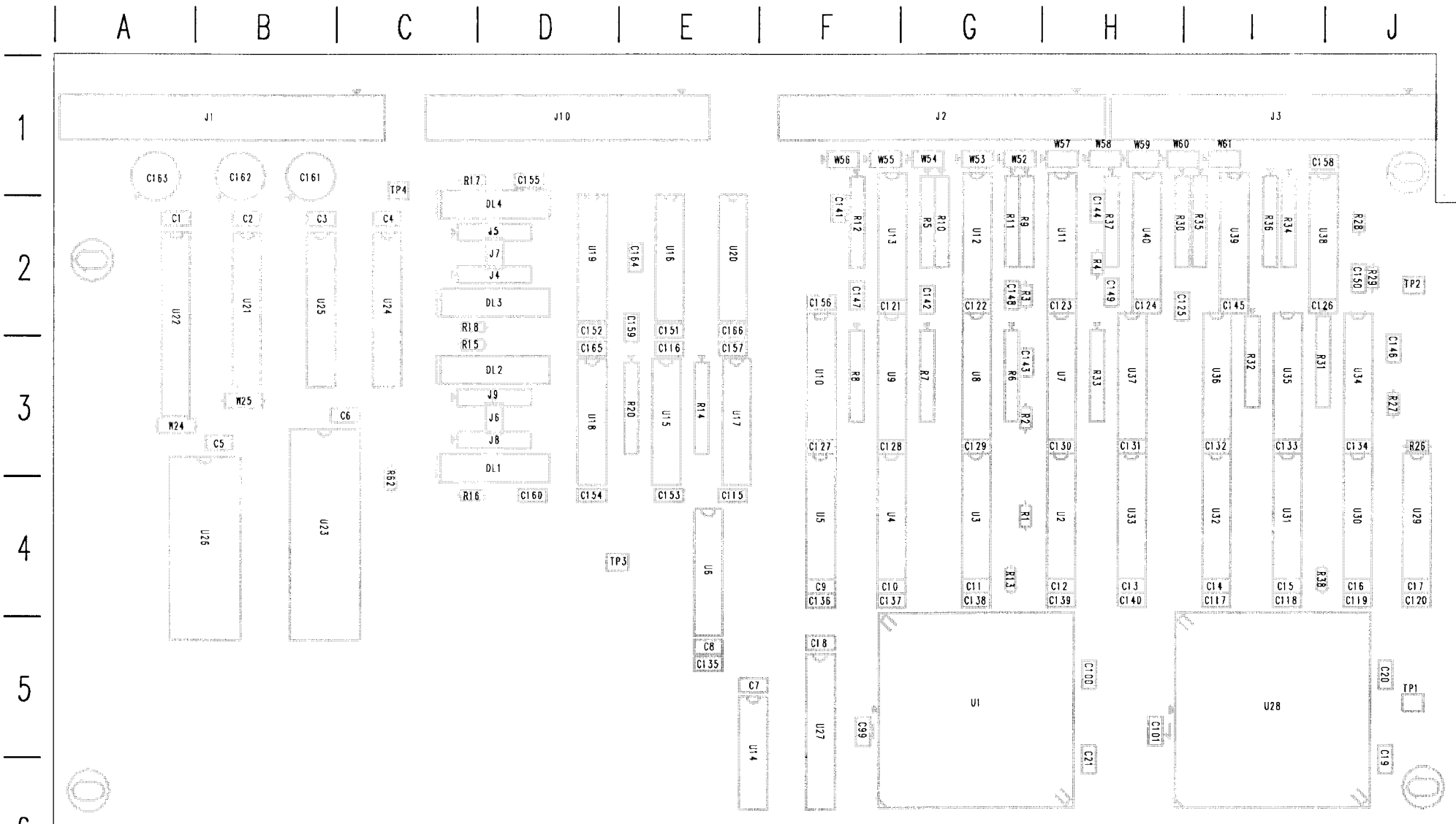




**Schematic Diagram < 1 >  
ZONE PLATE Board**

The schematic diagram and circuit board illustration have an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A31** Partial A31 also shown on diagrams 2 and 3.



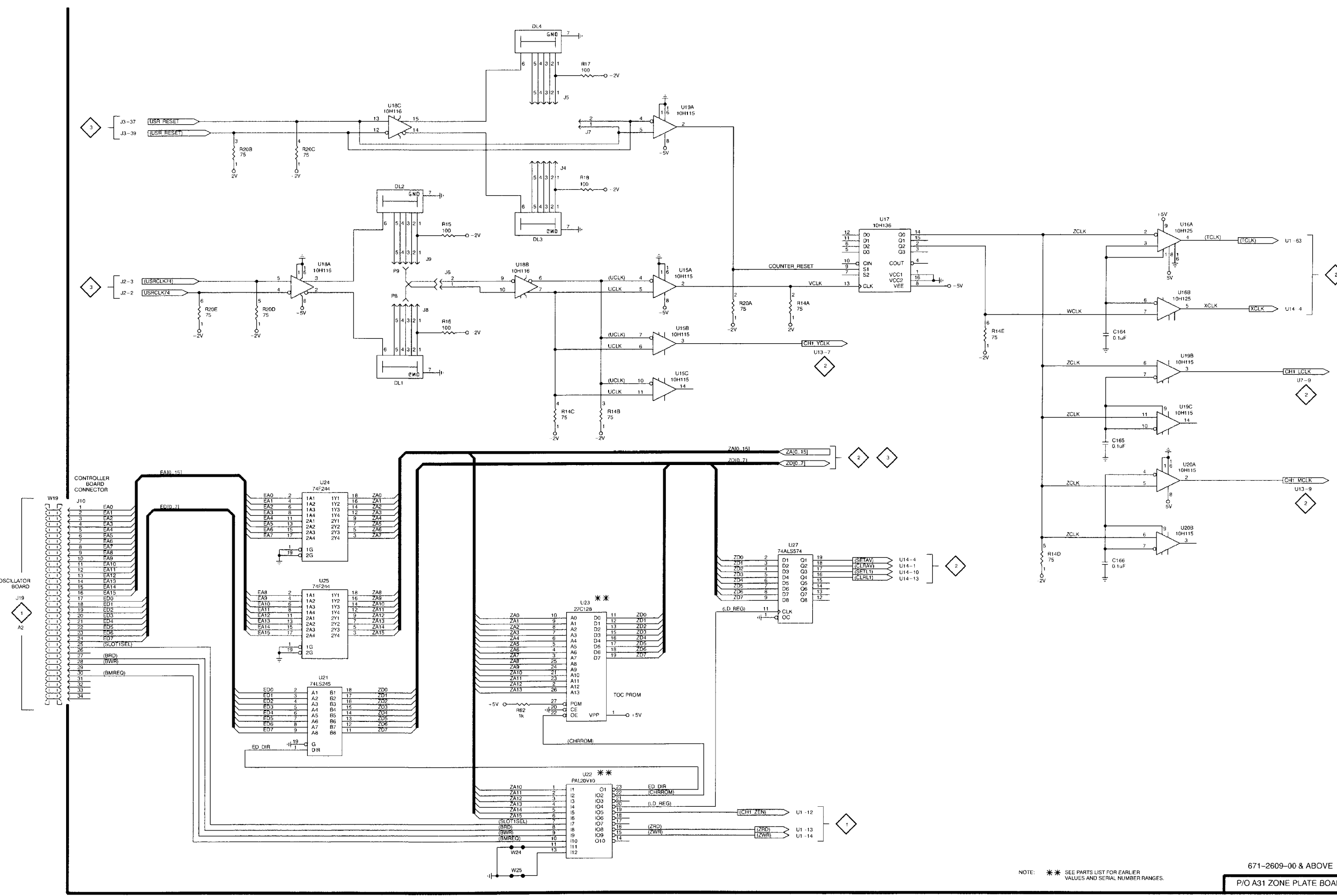
**A31 ZONE PLATE Board**

CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC	CKT NO.	SCHEM LOC	SCHEM LOC	BD LOC
C1	A1	3	A2	C151	C4	3	E3	R20D	B2	1	D3
C2	B1	3	B2	C152	C4	3	D3	R20E	B2	1	D3
C3	B1	3	B2	C153	D4	3	E4	R62	D4	1	C3
C4	B1	3	C2	C154	D4	3	D4				
C6	C1	3	C3	C155	B2	3	D1	TP1	A4	3	J5
				C156	B2	3	F2	TP2	B4	3	J2
C7	C1	3	E5	C157	D4	3	E3	TP3	B4	3	D4
C8	C1	3	E5	C158	C2	3	I1	TP4	C4	3	C1
C9	D1	3	F4								
C10	A1	3	F4	C159	C2	3	E2	U1	C1	2	F5
C11	B1	3	G4	C160	C2	3	D4	U2	D1	2	G3
				C161	A4	3	B1	U3	D2	2	G3
C12	B1	3	H4	C162	B4	3	B1	U4	D3	2	F3
C13	B1	3	H4	C163	B4	3	A1	U5	D3	2	F3
C14	C1	3	I4	C164	G2	1	E2	U6	D4	2	E4
C15	C1	3	I4	C165	G3	1	D3				
C16	C1	3	J4	C166	G4	1	E3	U7	F1	2	G2
								U8	F2	2	G2
C17	D1	3	J4	DL1	C3	1	C3	U9	F3	2	F2
C18	A2	3	F5	DL2	C2	1	C3	U10	F3	2	F2
C19	B2	3	J5	DL3	D2	1	C2	U11	G3	2	G1
C20	B2	3	J5	DL4	D1	1	C2	U12	G2	2	G1
C21	B2	3	H5								
C99	C2	3	F5	J1	H1	3	C1	U13	G1	2	F1
				J2	H2	3	H1	U14	C3	2	E5
C100	C2	3	H5	J3	H4	3	J1	U15A	D2	1	E3
C101	C2	3	H5	J4	D1	1	C2	U15B	D2	1	E3
C115	A3	3	E4	J5	D1	1	C2	U15C	D3	1	E3
C116	D2	3	E3	J6	C2	1	C3	U16A	G2	1	E2
C117	B3	3	I4	J7	D1	1	C2				
C118	B3	3	I4	J8	C2	1	C3	U16B	G2	1	E2
				J9	C2	1	C3	U17	F2	1	E3
C119	B3	3	J4	J10	A3	1	F1	U18A	B2	1	D3
C120	C3	3	J4					U18B	D2	1	D3
C121	C3	3	F2	P4	D1	1		U18C	C1	1	D3
C122	C3	3	G2	P5	D1	1		U19A	D1	1	D2
C123	D3	3	H2	P8	C2	1					
C124	D3	3	H2	P9	C2	1		U19B	G3	1	D2
								U19C	G3	1	D2
C125	D3	3	H2	R1	D1	2	G4	U20A	G3	1	E2
C126	A3	3	I2	R2	E4	2	G3	U20B	G3	1	E2
C127	B3	3	F3	R3	F4	2	G2	U21	B4	1	B2
C128	B3	3	F3	R4	F4	2	H2				
C129	B3	3	G3	R5	G4	2	G1	U22	D5	1	A2
				R6	F4	2	G2	U23	D4	1	B3
C130	C3	3	H3					U24	B3	1	C2
C131	C3	3	H3	R7	F4	2	G3	U25	B4	1	B2
C132	C3	3	I3	R8	F4	2	F2	U27	E4	1	F5
C133	D3	3	I3	R9	G4	2	G1				
C134	D3	3	J3	R10	G4	2	G2	W24	D5	1	A3
				R11	G5	2	G1	W25	D5	1	B3
C135	D3	3	E5	R12	G5	2	F1	W52	F2	3	G1
C136	A4	3	F4					W53	F2	3	G1
C137	B4	3	F4	R13	B2	2	G4	W54	F2	3	G1
C138	B4	3	G4	R14A	E2	1	E3	W55	F2	3	F1
C139	B4	3	H4	R14B	D3	1	E3				
C140	C4	3	H4	R14C	D3	1	E3	W56	F2	3	F1
				R14D	G4	1	E3	W57	F2	3	H1
C141	A2	3	F2					W58	F2	3	H1
C142	B2	3	G2	R14E	F2	1	E3	W59	F3	3	H1
C143	B2	3	G3	R15	C2	1	C3	W60	F3	3	H1
C144	B2	3	H2	R16	C2	1	C4	W61	F3	3	I1
C145	C2	3	I2	R17	D1	1	C1				
C146	C2	3	J3	R18	D2	1	C2				
C147	C2	3	F2	R20A	E2	1	D3				
C148	D2	3	G2	R20B	B1	1	D3				
C149	A2	3	H2	R20C	B1	1	D3				
C150	B2	3	J2								

Static Sensitive Devices  
See Maintenance Section

A B C D E F G H

1  
2  
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NOTE: \*\* SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

671-2609-00 & ABOVE  
P/O A31 ZONE PLATE BOARD

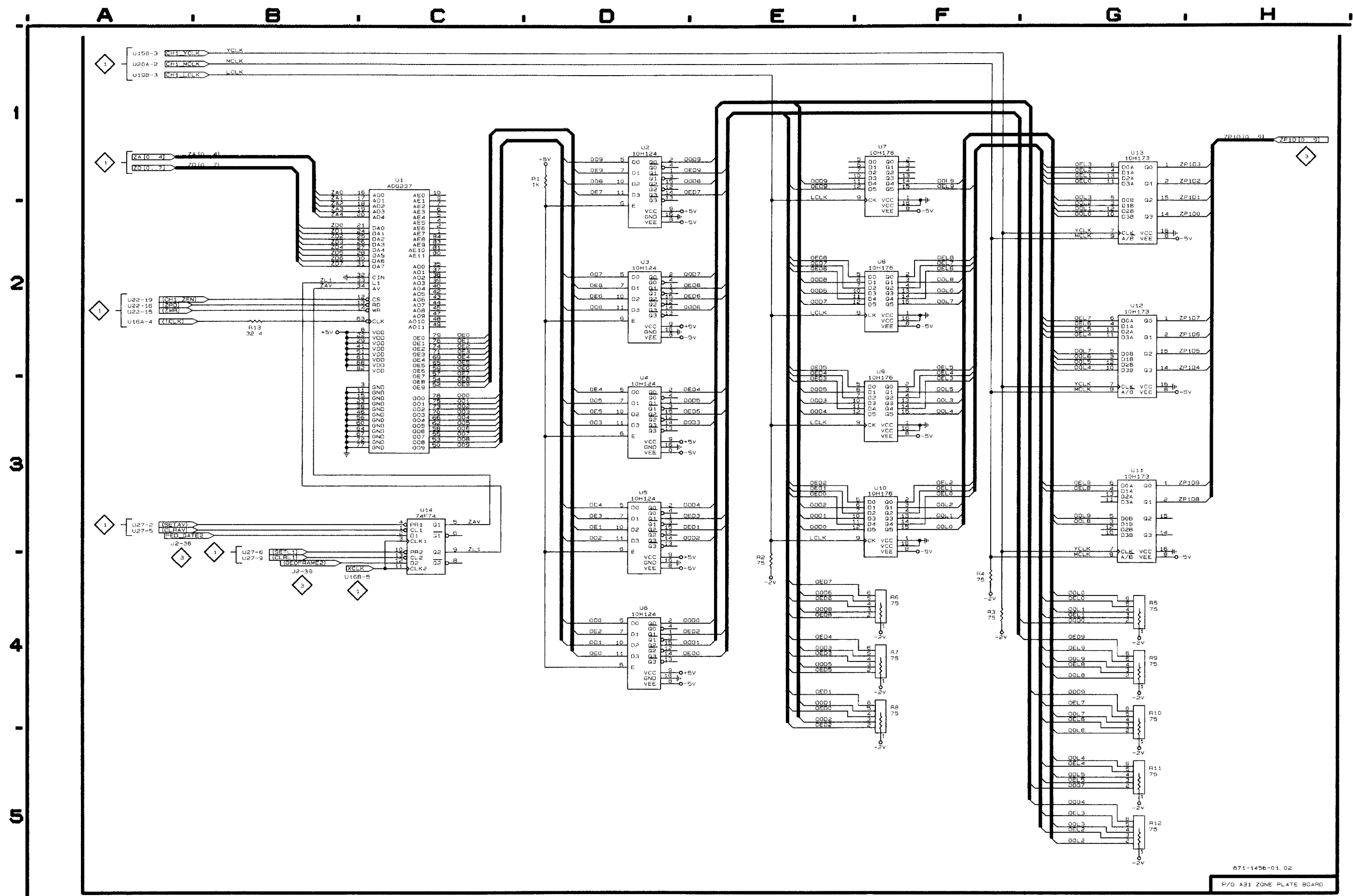


**Schematic Diagram <2>  
ZONE PLATE Board**

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A31** *Partial A31 also shown on diagrams 1 and 3.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
R1	D1	G4
R2	E4	G3
R3	F4	G2
R4	F4	H2
R5	G4	G1
R6	F4	G2
R7	F4	G3
R8	F4	F2
R9	G4	G1
R10	G4	G2
R11	G5	G1
R12	G5	F1
R13	B2	G4
U1	C1	F5
U2	D1	G3
U3	D2	G3
U4	D3	F3
U5	D3	F3
U6	D4	E4
U7	F1	G2
U8	F2	G2
U9	F3	F2
U10	F3	F2
U11	G3	G1
U12	G2	G1
U13	G1	F1
U14	C3	E5



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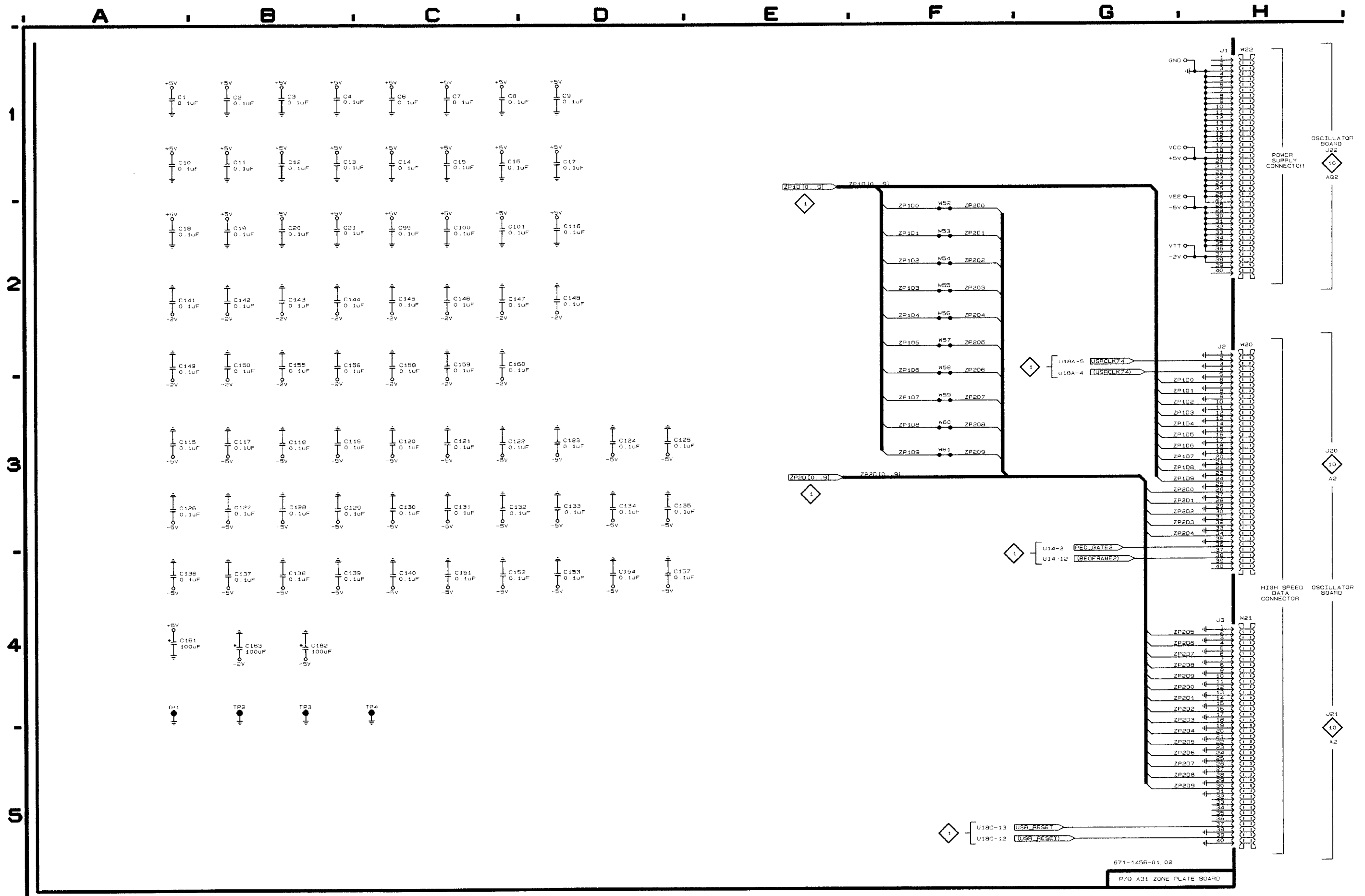
P/O A31 ZONE PLATE BOARD

### Schematic Diagram <3> ZONE PLATE Board

The schematic diagram and circuit board illustration has an alphanumeric grid to assist in locating parts within that diagram or board.

**ASSEMBLY A31** *Partial A31 also shown on diagrams 1 and 2.*

CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION	CIRCUIT NUMBER	SCHEM LOCATION	BOARD LOCATION
C1	A1	A2	C138	B4	G4
C2	B1	B2	C139	B4	H4
C3	B1	B2	C140	C4	H4
C4	B1	C2	C141	A2	F2
C5	C1	B3	C142	B2	G2
C6	C1	C3	C143	B2	G3
C7	C1	E5	C144	B2	H2
C8	D1	E5	C145	C2	I2
C9	D1	F4	C146	C2	J3
C10	A1	F4	C147	C2	F2
C11	B1	G4	C148	D2	G2
C12	B1	H4	C149	A2	H2
C13	B1	H4	C150	B2	J2
C14	C1	I4	C151	C4	E3
C15	C1	I4	C152	C4	D3
C16	C1	J4	C153	D4	E4
C17	D1	J4	C154	D4	D4
C18	A2	F5	C155	B2	D1
C19	B2	J5	C156	B2	F2
C20	B2	J5	C157	D4	E3
C21	B2	H5	C158	C2	I1
C99	C2	F5	C159	C2	E2
C100	C2	H5	C160	C2	D4
C101	C2	H5	C161	A4	B1
C115	A3	E4	C162	B4	B1
C116	D2	E3	C163	B4	A1
C117	B3	I4	J1	H1	C1
C118	B3	I4	J2	H2	H1
C119	B3	J4	J3	H4	J1
C120	C3	J4	TP1	A4	J5
C121	C3	F2	TP2	B4	J2
C122	C3	G2	TP3	B4	D4
C123	D3	H2	TP4	C4	C1
C124	D3	H2	W52	F2	G1
C125	D3	H2	W53	F2	G1
C126	A3	I2	W54	F2	G1
C127	B3	F3	W55	F2	F1
C128	B3	F3	W56	F2	F1
C129	B3	G3	W57	F2	H1
C130	C3	H3	W58	F2	H1
C131	C3	H3	W59	F3	H1
C132	C3	I3	W60	F3	H1
C133	D3	I3	W61	F3	I1
C134	D3	J3			
C135	D3	E5			
C136	A4	F4			
C137	B4	F4			





# Replaceable Mechanical Parts

This section contains a list of the components that are replaceable for the TSG 1001. Use this list to identify and order replacement parts. There is a separate Replaceable Mechanical Parts list for each instrument.

## Parts Ordering Information

Replacement parts are available from or through your local Tektronix, Inc., Field Office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components as they become available and to give you the benefit of the latest circuit improvements. Therefore, when ordering parts, it is important to include the following information in your order.

- Part number
- Instrument type or model number
- Instrument serial number
- Instrument modification number, if applicable

If a part you have ordered has been replaced with a new or improved part, your local Tektronix, Inc., Field Office or representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

## Using the Replaceable Mechanical Parts List

The tabular information in the Replaceable Mechanical Parts list is arranged for quick retrieval. Understanding the structure and features of the list will help you find all of the information you need for ordering replaceable parts.

### **Cross Index–Mfr. Code Number to Manufacturer**

The Mfg. Code Number to Manufacturer Cross Index for the mechanical parts list is located immediately after this page. The cross index provides codes, names, and addresses of manufacturers of components listed in the mechanical parts list.

### **Abbreviations**

Abbreviations conform to American National Standards Institute (ANSI) standard Y1.1.

**Chassis Parts** Chassis-mounted parts and cable assemblies are located at the end of the Replaceable Electrical Parts list.

## Column Descriptions

**Figure & Index No. (Column 1)** Items in this section are referenced by figure and index numbers to the illustrations.

**Tektronix Part No. (Column 2)** Indicates part number to be used when ordering replacement part from Tektronix.

**Serial No. (Columns 3 and 4)** Column three (3) indicates the serial number at which the part was first used. Column four (4) indicates the serial number at which the part was removed. No serial number entered indicates part is good for all serial numbers.

**Qty (Column 5)** This indicates the quantity of mechanical parts used.

**Name and Description (Column 6)** An item name is separated from the description by a colon (:). Because of space limitations, an item name may sometimes appear as incomplete. Use the U.S. Federal Catalog handbook H6-1 for further item name identification.

Following is an example of the indentation system used to indicate relationship.

1	2	3	4	5	Name & Description
					Assembly and/or Component
					Mounting parts for Assembly and/or Component
					*MOUNTING PARTS*/*END MOUNTING PARTS*
					Detail Part of Assembly and/or Component
					Mounting parts for Detail Part
					*MOUNTING PARTS*/*END MOUNTING PARTS*
					Parts of Detail Part
					Mounting parts for Parts of Detail Part
					*MOUNTING PARTS*/*END MOUNTING PARTS*

Mounting Parts always appear in the same indentation as the Item it mounts, while the detail parts are indented to the right. Indented items are part of and included with, the next higher indentation. **Mounting parts must be purchased separately, unless otherwise specified.**

**Mfr. Code (Column 7)** Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

**Mfr. Part Number (Column 8)** Indicates actual manufacturer's part number.

## Cross Index – Mfr. Code Number To Manufacturer

Mfr. code	Manufacturer	Address	City, state, zip code
01536	TEXTRON INC	1818 CHRISTINA ST	ROCKFORD, IL 61108
060D9	UNITREK CORPORATION	3000 COLUMBIA HOUSE BLVD, SUITE 1 20	VANCOUVER, WA 98661
06666	GENERAL DEVICES	PO BOX 39100	INDIANAPOLIS, IN 46239
06915	RICHCO	5825 N TRIPP AVE P.O. BOX 804238	CHICAGO, IL 60646
0B445	ELECTRI-CORD MFG CO INC	312 EAST MAIN STREET	WESTFIELD, PA 16950
0J260	COMTEK MANUFACTURING OF OREGON	P O BOX 4200 M/S 16-207	BEAVERTON, OR 970764200
0J9P9	GEROME MFG CO INC	PO BOX 737 403 NORTH MAIN	NEWBERG, OR 97132
OKB01	STAUFFER SUPPLY CO	810 SE SHERMAN	PORTLAND, OR 97214-4657
OKBZ5	Q & D PLASTICS INC	1812 - 16TH AVENUE PO BOX 487	FOREST GROVE, OR 97116-0487
2W944	PAPST MECHATRONIC CORP	AQUIDNECK INDUSTRIAL PARK	NEWPORT, RI 02840
2X013	MCGUIRE BEARING COMPANY	947 SE MARKET ST	PORTLAND, OR 972143574
55566	RAF ELECTRONIC HARDWARE INC	95 SILVERMINE ROAD	SEYMOUR, CT 06483
5Y400	TRIAx METAL PRODUCTS INC	1880 SW MERLO DRIVE	BEAVERTON, OR 97006
73743	FISCHER SPECIAL MFG CO	111 INDUSTRIAL RD PO BOX 76500	COLD SPRINGS, KY 41076
73893	MICRODOT INC	50631 E RUSSELL SCHMIDT BLVD	MT CLEMENS, MI 48045
80009	TEKTRONIX INC	14150 SW KARL BRAUN DR PO BOX 500	BEAVERTON, OR 97077-0001
85471	BOYD CORPORATION	13885 RAMONA AVE	CHINO, CA 91710
85480	BRADY USA	NAMEPLATE DIVISION P O BOX 571 346 ELIZABETH BRADY RD	HILLSBOROUGH, NC 27278
86928	SEASTROM MFG CO INC	456 SEASTROM STREET	TWIN FALLS, ID 83301
93907	CAMCAR DIV OF TEXTRON INC	ATTN: ALICIA SANFORD 516 18TH AVE	ROCKFORD, IL 611045181
TK0435	LEWIS SCREW CO.	4300 SOUTH RACINE AVENUE	CHICAGO, IL 60609
TK0588	UNIVERSAL PRECISION PRODUCT	1775 NW CORNELIUS PASS RD	HILLSBORO, OR 97124
TK1547	MOORE ELECTRONICS INC	19500 SW 90TH CT PO BOX 1030	TUALATIN, OR 97062
TK1943	NEILSEN MANUFACTURING INC	3501 PORTLAND RD NE	SALEM, OR 97303
TK2548	XEROX CORPORATION	14181 SW MILLIKAN WAY	BEAVERTON, OR 97005



## Replaceable Mechanical Parts

Fig. & index no.	Tektronix part no.	Serial number Effective	Dscont	Qty	Name & description	Mfr. code	Mfr. part no.
1-1	200-3930-02			1	COVER,TOP:	TK1943	200393002
-2	211-0538-00			46	SCREW,MACH:6-32 X 0.312,FLH,100 DEG,STL CD PL,POZ	93907	ORDER BY DESCR
-3	200-3834-02			1	COVER,BOTTOM:	TK1943	200-3834-02
-4	367-0422-01			2	HANDLE,BOW:	80009	367-0422-01
-5	212-0070-00			4	SCREW,MACH:8-32 X 0.312,FLH,100 DEG,STL CD PL,POZ	OKB01	ORDER BY DESCRN
-6	213-0216-00			1	THUMBSCREW:10-32 X 0.85,0.375 OD HD,SST W/SLOT	OKB01	213-0216-00
-7	354-0025-00			1	RING,RETAINING:EXTERNAL,U/O 0.187 DIA SFT	2X013	IRR-7100-18-2B
-8	210-0894-00			1	WASHER,FLAT:0.19 ID X 0.438 OD X 0.031 POLTHN	86928	ORDER BY DESCR
-9	366-2174-00			1	KNOB:	80009	366-2174-00
-10	333-3871-02			1	PANEL,FRONT:	TK1943	333387102
-11	337-3803-00			2	SHIELD,EMI:CLIP ON,FINGER STOCK STRIP,0.3 X 16 IN L	30817	97-611-06
-12	211-0244-00			10	SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ	01536	821-02775
-13	337-3756-00			1	SHIELD,ELEC:	TK1947	337-3756-00
-14	426-2395-02			1	FRAME,CABINET:OPEN FRONT	80009	426-2395-02
-15	-----			1	DISPLAY,ELEC:VACUUM FLORESCENT (SEE A9 REPL)		
-16	210-0586-00			4	NUT,PL,ASSEM WA:4-40 X 0.25,STL CD PL	OKB01	ORDER BY DESCR
-17	361-1566-00			4	SPACER,SLEEVE:0.110 L X 0.125 ID X 0.300 OD,PLASTIC	TK0588	361-1566-00
-18	-----			1	CIRCUIT BD ASSY:FRONT PANEL (SEE A1 REPL)		
-19	361-1566-00			4	SPACER,SLEEVE:0.110 L X 0.125 ID X 0.300 OD,PLASTIC	TK0588	361-1566-00
-20	378-0382-00			1	FILTER ASSY:CRT,GREEN W/FOAM STRIPS	80009	378-0382-00
-21	211-0530-00			4	SCREW,MACHINE:6-32 X 1.750,PNH,STL CD PL,POZ	TK0435	ORDER BY DESCR
-22	337-3702-00			1	SHIELD,ELEC:FAN,PLASTIC	OKBZ5	337-3702-00
-23	361-1586-00			4	SPACER,SLEEVE:FAN MOUNTING,PAPST	2W944	LZ260
-24	-----			1	FAN TUBEAXIAL:24VDC,2.2W,3300RPM,32CFM,W/14.25 IN LEAD,W/13.0 IN SLEEVE,W/2 PIN CONNECTOR,80 X		
-25	337-3753-00			1	SHIELD,ELEC:FAN,BLACK,ABS	OKBZ5	337-3753-00
-26	212-0001-00			11	SCREW,MACHINE:8-32 X 0.25,PNH,STL CD PL,POZ	TK0435	ORDER BY DESCR
-27	212-0142-00			1	SCREW,MACHINE:8-32 X 0.437,PNH STL CD PL,POZ	93907	ORDER BY DESCR
-28	343-0003-00			1	CLAMP,LOOP:0.25 ID,PLASTIC	06915	E4 CLEAR ROUND CABLECLAMP
-29	210-0863-00			1	WSHR,LOOP CLAMP:0.091 ID U/W 0.5 W CLP,STL CD PL	85480	C191
-30	211-0177-00			1	SCREW,MACHINE:4-40 X 0.312,PNH,STL BK OXD,POZ	73893	ORDER BY DESCR
-31	211-0541-00			1	SCREW,MACH:6-32 X 0.25,FLH,100 DEG,STL CD PL,POZ	93907	ORDER BY DESCR
-32	333-3988-03			1	PANEL,REAR:REAR PANEL	TK1943	333-3988-03
-33	426-2394-02			2	FRAME,SECT:ALUMINUM	80009	426-2394-02
-34	351-0104-03			1	SL SECT,DWR EXT:12.625 L,W/O HARDWARE	06666	C-720-3 (WITHOUT HARDWARE)
-35	386-6072-00			1	PLATE,CKT BD MT:TSG1050 STANDARD ACCESSORIES	5Y400	386-6072-00

Fig. & index no.	Tektronix part no.	Serial number		Qty	Name & description	Mfr. code	Mfr. part no.
		Effective	Dscont				
-36	351-0636-00			1	SLIDE,DWR,EXT:20.0 X 1.69,PAIR,R&L,15" INTER	06666	C-1252
	070-7908-03			1	MANUAL,TECH:USERS,TSG1001	TK2548	070-7908-03
	070-8625-02			1	MANUAL,TECH:SERVICE,TSG1001	TK2548	070-8005-02
	070-8005-02			1	MANUAL,TECH:INSTRUCTION,SDP1000,SOFTWARE	TK2548	070-8005-02
	174-2344-00			1	CABLE,INTCON:SHLD CMPST,RS232,MLD,25,26 AWG,24 AWG,10 FT,DUAL SHLD,25 POS,MALE,DSUB,DB25M X	TK1547	174-2344-00
	174-3562-00			1	CA ASSY,SP:SHLD CMPST,25,28 AWG,72 INCH,DB25M X DB25M,25 POS,DSUB,MALE,BOTH ENDS,1 TO 1,WI	060D9	174-3562-00
-37	161-0066-00			1	CA ASSY,PWR:3,18 AWG,250V/10A,98 INCH,STR,IEC320, RCPT X NEMA 5-15P,US,SAFTEY CONTROLLED OPTIONAL ACCESSORIES	0B445	ECM-161-0066-00
	161-0215-00			1	CABLE ASSY,PWR:3,0.75MU,2.5MM L,GREY (EUROPEAN OPTION A1 ONLY)	80009	161-0215-00
	161-0066-10			1	CABLE ASSY,PWR: (UNITED KINGDOM OPTION A2 ONLY)	TK1373	24230
	161-0066-11			1	CABLE ASSY,PWR:3,0.75MM,240V,96.0 L (AUSTRALIAN OPTION A3 ONLY)	80009	161-0066-11
	161-0066-12			1	CABLE ASSY,PWR:3,18 AWG,98 L,SVT,GREY/BLK,60 DEG C,BME X STR,IEC RCPT,10A/250V (NORTH AMERICAN OPTION A4 ONLY)	70903	CH-77893
	161-0154-00			1	CABLE ASSY,PWR:3,1.00MM SQ,250V,10A,2.5METER, SWISS (SWISS OPTION A5 ONLY)	80009	161-0154-00
	070-8625-02			1	MANUAL,TECH:SERVICE,TSG1001	TK2548	070-8625-02

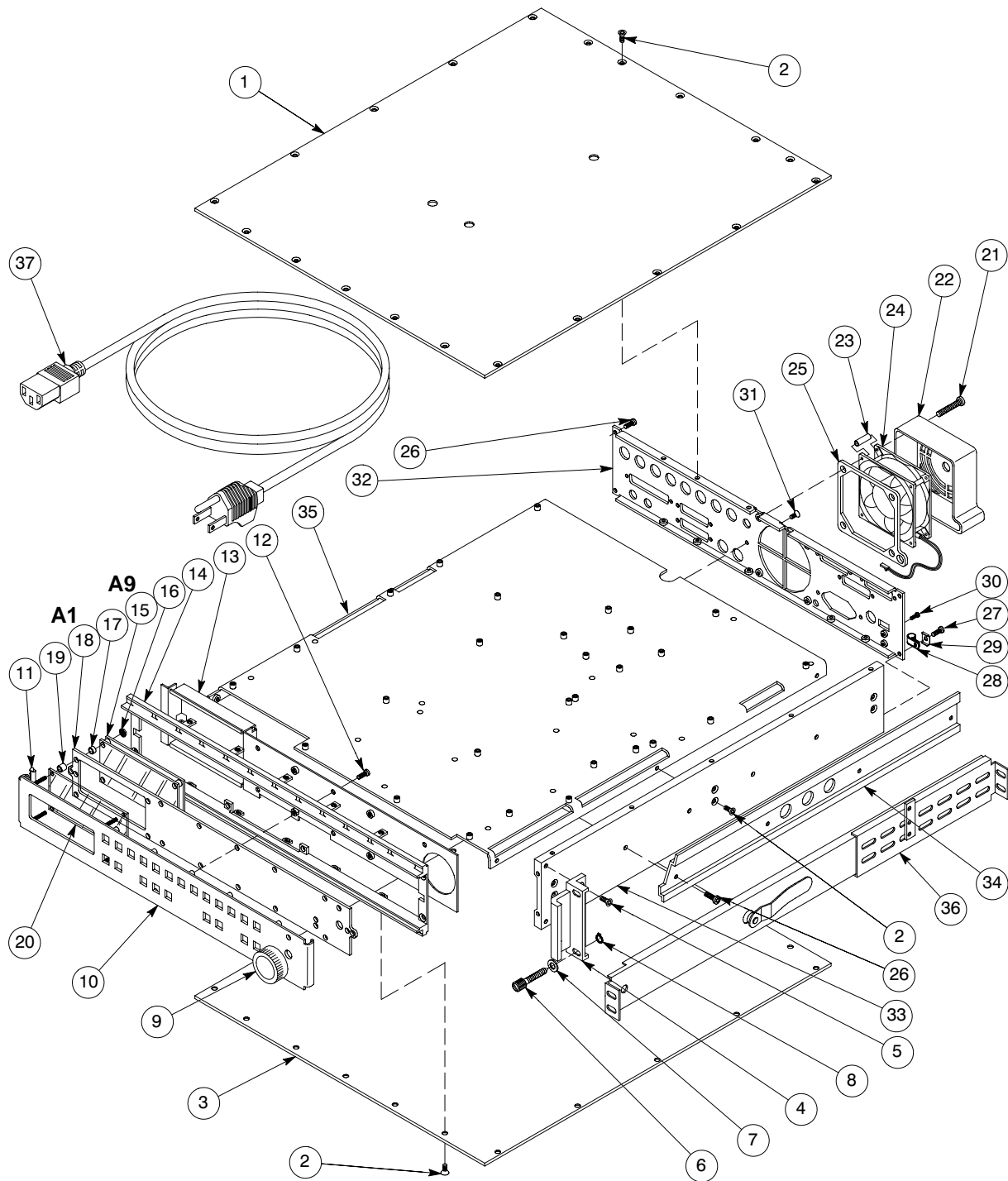


Figure 1: Front, Rear and Chassis View

Fig. & Index No.	Tektronix Part No.	Serial Number		Qty	12345	Name & Description	Mfr. Code	Mfr. Part No.
		Effective	Dscont					
2-1	-----			1		CIRCUIT BD ASSY:ZONEPLATE (SEE A31 REPL)		
-2	211-0244-00			48		SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (WITH STANDARD ONLY)	01536	821-02775
	211-0244-00			53		SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (WITH OPTION)	01536	821-02775
-3	-----			1		CIRCUIT BD ASSY:OSCILLATOR (SEE A2 REPL)		
-4	129-1349-00			15		SPACER,POST:0.62 L X 4-40 X 0.25 INT THD & 4-40 X 0.2 EXT THD,STUD0.25 HEX	55566	129-1349-00
-5	-----			1		CIRCUIT BD ASSY:OSCILLATOR FILTER (SEE A2A3 REPL)		
-6	-----			1		OVEN ASSEMBLY:14.4000MHZ (SEE A2A1 REPL)		
-7	200-3266-01			1		CAP,HEAT SINK:PLASTIC	OJR05	200-3266-01
-8	211-0513-00			2		SCREW,MACHINE:6-32 X 0.625,PNH,STL CD PL	TK0435	ORDER BY DESCR
-9	134-0209-00			1		BUTTON,PLUG:0.344 OD,SNAP-IN 0.187 DIA HOLE,NYLON 6/6,MATTE	13764	62PP018BM14
-10	211-0256-00			4		SCREW,CAP:2-56 X 0.250,SCH,SST,PASS,HEX	0KB01	ORDER BY DESCR
-11	214-4785-00			1		HEAT SINK,ELEC:0.55 X 0.96,YELLOW CHROMATE CVRSN COATING	5Y400	214-4785-00
-12	200-4391-00			1		COVER,TOP:ALUMINUM	5Y400	200-4391-00
-13	-----			1		CIRCUIT BD ASSY: (NOT REPLACEABLE)		
-14	348-0935-00			1		GASKET:2.0 X 1.7,NEOPRENE	2K262	ORDER BY DESCR
-15	432-0154-00			1		BASE,HEAT SINK:PLASTIC	TK2562	432-0154-00
-16	-----			1		OVEN ASSEMBLY:15.835165MHZ (SEE A2A2 REPL)		
-17	337-3766-00			1		SHIELD,ELEC:ALUMINUM	OJ9P9	337-3766-00
-18	-----			1		CIRCUIT BD ASSY:PEDESTAL (SEE A7 REPL)		
-19	-----			1		CIRCUIT BD ASSY:DIGITAL OUT (SEE A6 REPL)		
-20	-----			1		CIRCUIT BD ASSY:OUTPUT (SEE A3 REPL)		
-21	220-0497-00			8		NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL	73743	ORDER BY DESCR
-22	210-1039-00			8		WASHER,LOCK:0.521 ID,INT,0.025 THK,SST	0KB01	1224-02-00-0541C
-23	-----			1		CIRCUIT BD ASSY:OSCILLATOR FILTER (SEE A3A5 REPL)		
-24	129-1395-00			1		SPACER,POST:4-40 X 0.5 L,STAINLESS STEEL	55566	4534-440-SS-20
-25	-----			1		CIRCUIT BD ASSY:FILTER (SEE A3A3 REPL)		
-26	-----			1		CIRCUIT BD ASSY:FILTER (SEE A3A2 REPL)		
-27	-----			1		CIRCUIT BD ASSY:FILTER (SEE A3A1 REPL)		
-28	-----			1		OVEN ASSEMBLY:14.8500MHZ (SEE A3A4 REPL)		

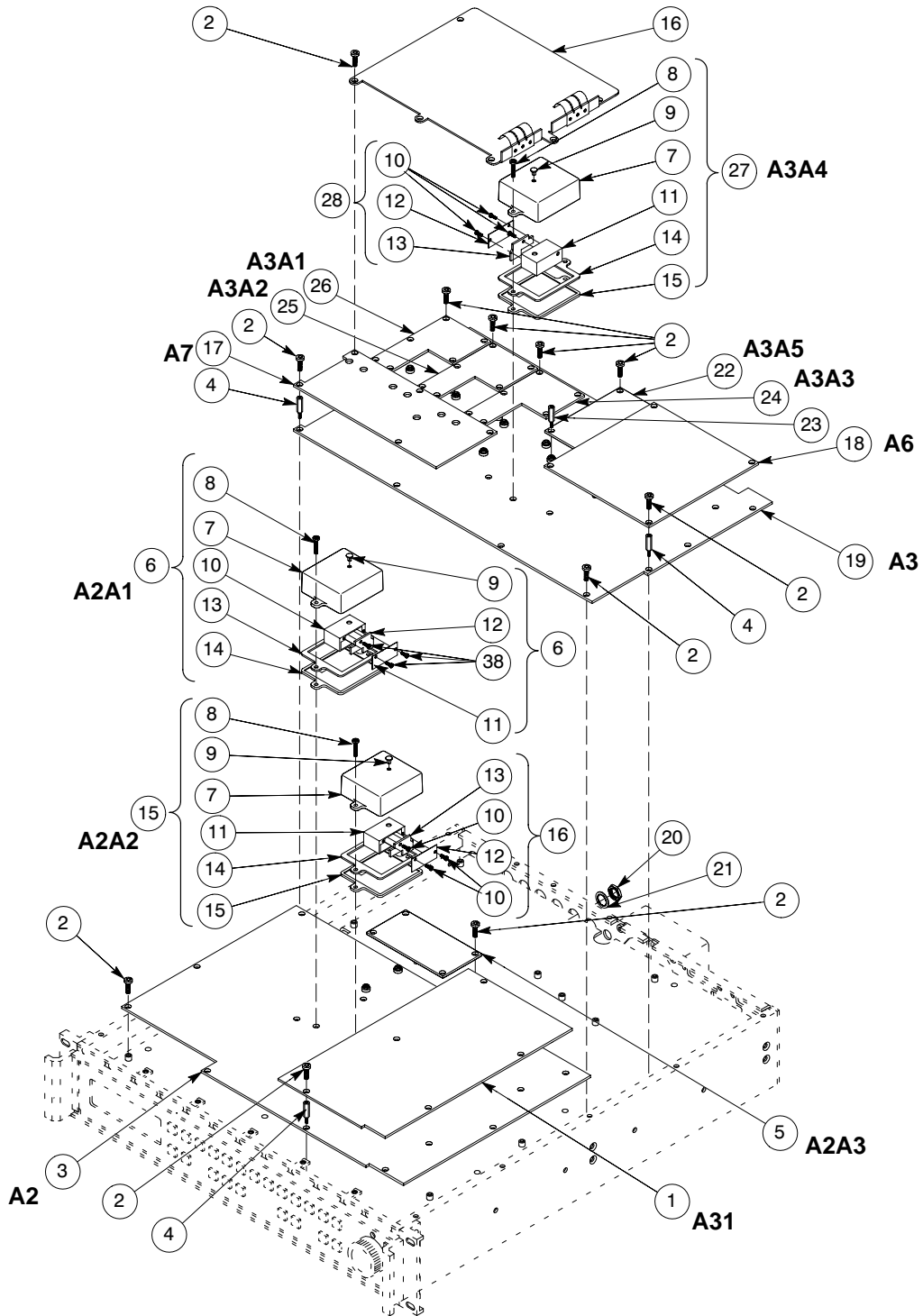


Figure 2: Top Board View

Fig. & Index No.	Tektronix Part No.	Serial Number		Qty	12345	Name & Description	Mfr. Code	Mfr. Part No.
		Effective	Dscont					
3-1	-----			1		CIRCUIT BD ASSY:HV DRIVE (SEE A10 REPL)		
-2	211-0244-00			33		SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (STANDARD ONLY)	01536	821-02775
	211-0244-00			22		SCR,ASSEM WSHR:4-40 X 0.312,PNH,STL,CD PL,POZ (WITH OPTION)	01536	821-02775
-3	-----			1		CIRCUIT BD ASSY:RAM LINE EXTENDER (SEE A17 REPL)		
-4	129-1349-00			6		SPACER,POST:0.62 L X 4-40 X 0.25 INT THD & 4-40 X 0.2 EXT THD,STUD0.25 HEX (STANDARD ONLY)	55566	129-1349-00
	129-1349-00			17		SPACER,POST:0.62 L X 4-40 X 0.25 INT THD & 4-40 X 0.2 EXT THD,STUD0.25 HEX (WITH OPTION)	55566	129-1349-00
-5	-----			1		CIRCUIT BD ASSY:CLOCK INPUT (SEE A8 REPL)		
-6	220-0497-00			8		NUT,PLAIN,HEX:0.5-28 X 0.562 HEX,BRS CD PL	73743	ORDER BY DESCR
-7	210-1039-00			8		WASHER,LOCK:0.521 ID,INT,0.025 THK,SST	OKB01	1224-02-00-0541C
-8	-----			1		CIRCUIT BD ASSY:CONTROLLER (SEE A5 REPL)		
-9	211-0213-00			2		SCREW,MACHINE:4-40 X 0.312,PNH,NYL SLOT	OKB01	ORDER BY DESCR
-10	337-3701-00			1		SHIELD,ELEC:POWER SUPPLY,LEXAN	85471	337-3701-00
-11	-----			1		CIRCUIT BD ASSY:POWER SUPPLY (SEE A4 REPL)		
-12	211-0511-00			1		SCREW,MACHINE:6-32 X 0.5,PNH,STL CD PL, POZ	TK0435	ORDER BY DESCR
-13	407-3962-00			1		BRACKET,COMP:ALUMINUM	OJ9P9	407-3962-00
-14	211-0101-00			4		SCREW,MACH:4-40 X 0.25,FLH,100 DEG,STL CD PL,POZ	93907	ORDER BY DESCR
-15	337-3718-00			1		SHEILD,ELEC:BOTTOM	85471	337-3718-00

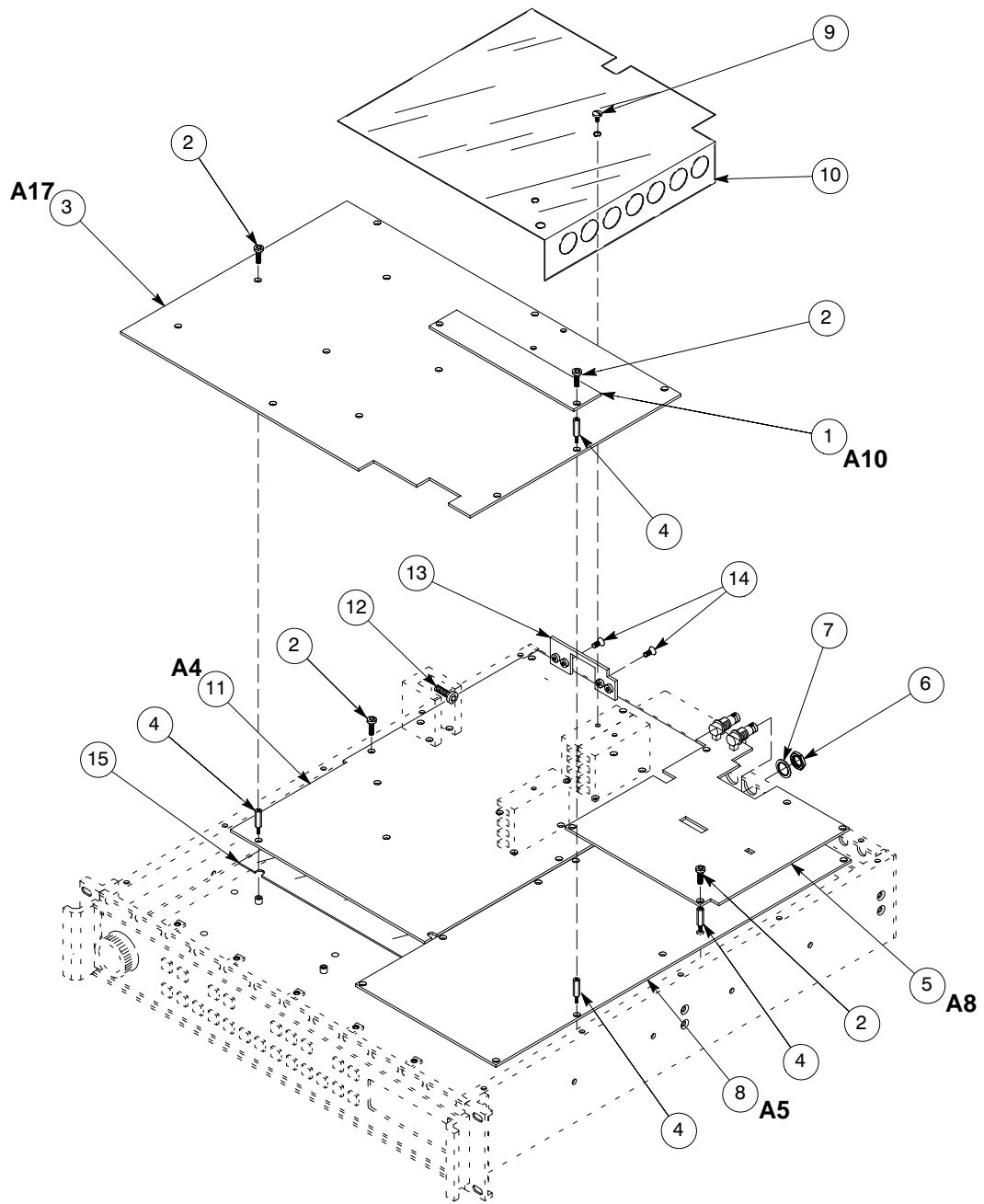


Figure 3: Bottom Board View





