

TEAC®

**CT-M215
CT-M145**

Color Television
SERVICE MANUAL


D.J.H.

Thanks for buying a TEAC. Read this manual carefully to get the best performance from this color television.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number _____

Serial number _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CONTENTS

Contents and Specifications	2
Safety Precautions.....	3
Servicing Precautions.....	4
Controls Location	6
Disassembly Instructions.....	7
Parts Location Diagram of Main Chassis	8
Adjustment Instructions	9
Circuit Description	14
Troubleshooting Guide.....	21
Block Diagram.....	28
Wiring Diagram.....	29
Terminal View of Semiconductor	30
Component Location Guide.....	31
Printed Circuit Board	33
Exploded View	34
Replacement Parts List.....	35
Circuit Diagram	

SPECIFICATIONS

Power Consumption	21"(85W), 14"(70W)
Receiving TV System.....	CCIR Standard
Tuning	40 Voltage Synthesizer
Audio Output	3W
Antenna Input Impedance.....	75 ohm IEC Type (300-ohm using balun supplied)
Picture Tube	(21") A51EBV13X25 (VIDEO-COLOR) (14")A34KCQ12XX 02S7BD
Dimension	14": 360(W) x 370(D) x 349(H) mm 21": 512(W) x 474.4(D) x 475(H) mm
Weight	(14") 10.4 Kg (21") 21.7 Kg

COLOUR RECEIVING SYSTEM		PAL/SECAM-B/G	PAL B/G-SECAM D/K	PAL-I	PAL-H
Intermediate Frequency	Picture	38.9 MHz	38.9 MHz	39.5 MHz	38.9 MHz
	Sound	33.4 MHz	33.4 MHz	33.5 MHz	33.4 MHz
	Colour	34.47 MHz	34.47 MHz	35.07 MHz	34.47 MHz
Receiving Channel	VHF Low	2-4 CH, S ₁ -S ₂	1-5 CH	NONE	0-5 CH
	VHF High	5-12 CH, S ₂ -S ₂₅	6-12 CH	NONE	5A-11 CH
	UHF	21-69 CH	21-69 CH	21-69 CH	21-69 CH
Power Source		220V/50Hz (SMPS)		240V/50Hz (SMPS)	

SAFETY PRECAUTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTIONS", "SAFETY INSTRUCTIONS" AND "PRODUCT SAFETY NOTICE" DESCRIBED BELOW.

X-RAY RADIATION PRECAUTIONS

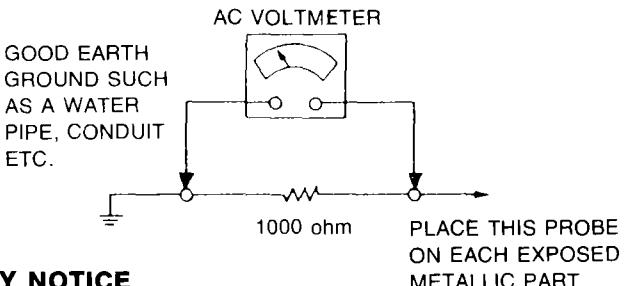
1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is 24 ± 1.5 KV at High beam current (maximum brightness) under specified power source. The high voltage must not, under any circumstances, exceed 27.5 KV. Each time a receiver requires servicing, the high voltage should be checked. It is recommended the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some parts in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY INSTRUCTIONS

1. Potential as high as 25,000—27,000 volts is present when this receiver is operating. Operation of the receiver outside the cabinet or with the back cover removed involves a shock hazard from the receiver.
 - (1) Servicing should not be attempted by anyone who don't know the precautions necessary through and through when working on high-voltage equipment.
 - (2) Always discharge the picture tube anode to the CHASSIS GROUND to reduce the shock hazard before removing the anode cap.
 - (3) Perfectly discharge the high potential of the picture tube before handling.
(WARNING: Risk of implosion. Handle with care.)
2. If any Fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list only.
3. When replacing parts or circuit boards, wind the lead wires around terminals before soldering.
4. When replacing a high wattage resistor (oxide metal film resistor) in circuit board, keep the resistor 10 mm. away from circuit board.
5. Keep wires away from high voltage or high temperature components.
6. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts

of the cabinet, such as antennas, terminals, screwheads, metal overlays, control shafts, etc., to be sure the set is safe to operate without danger of electrical shock. Since this TV has AVC (Automatic Voltage Control) circuit, it may be operated nonadjustably within the voltage-area indicated in the label attached at back cover. (Do not use a line isolation transformer during this check.) Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner.

Connect a 1000 ohm resistor between a known good earth ground, (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1000 ohm resistor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 1 volt RMS. This corresponds to 1 mA. AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-RAY RADIATION protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified by \triangle marks on the schematic diagram and the replacement parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create X-RAY RADIATION.

SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the *SAFETY PRECAUTIONS* on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before:
 - a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
 - b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
- CAUTION:** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
- d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).
- CAUTION:** This is a flammable mixture. Unless specified otherwise in this service manual, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
Always remove the test receiver ground lead last.
9. Use with this receiver only the test fixtures specified in this service manual.
- CAUTION:** Do not connect the test fixture ground strap to any heatsink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices*. Examples of

typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range of 500°F to 600°F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
 - a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F)
 - b. Heat the component lead until the solder melts.
 - c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
- CAUTION:** Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique
 - a. Allow the soldering iron tip to reach a normal temperature (500°F to 600°F).
 - b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.

- c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

CAUTION: Work quickly to avoid overheating the circuit board printed foil.

- d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Removal/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output Transistor Device Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.

CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections):

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

BLUE: NEUTRAL BROWN : LIVE

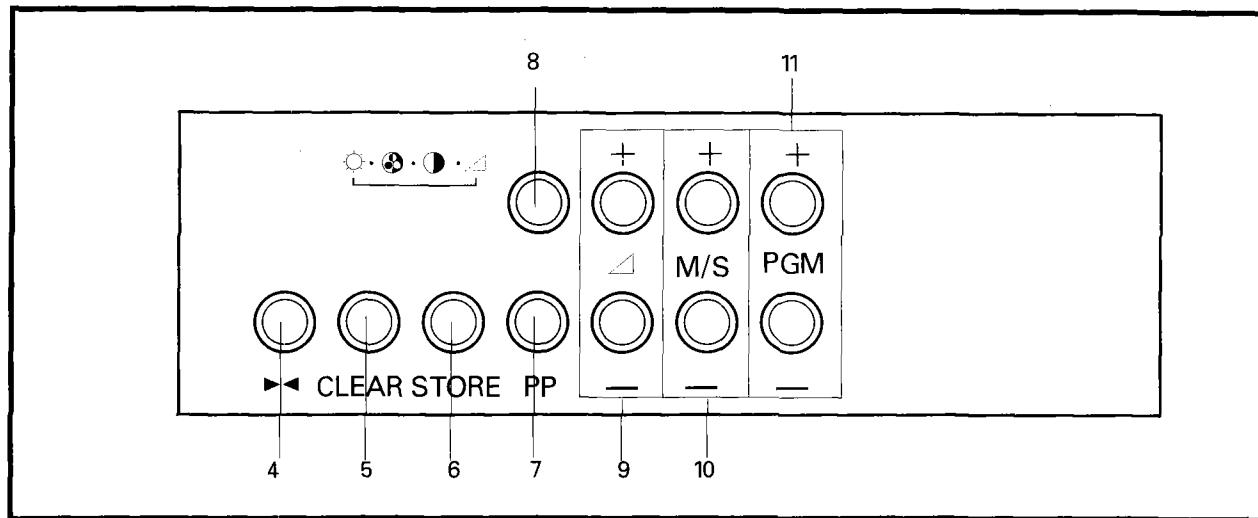
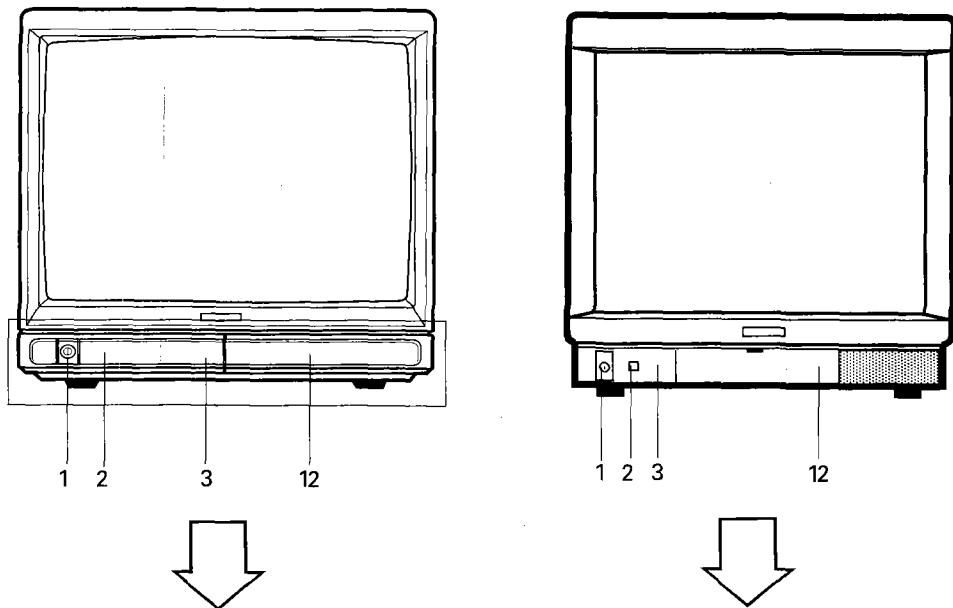
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

If a 13 Amp (BS1363) Plug or any other type of Plug is used a 5 Amp Fuse must be fitted, either in the Plug or Adapter, or on the Distribution board.

CONTROLS LOCATION

FRONT



1	MAIN POWER SWITCH	7	PERSONAL PREFERENCE SETTING KEY
2	REMOTE CONTROL SENSOR	8	NORMAL KEY
3	STAND-BY LED	9	VOLUME UP(+)/DOWN(-) KEYS
4	SEARCH KEY	10	MANUAL SEARCH UP(+)/DOWN(-) KEYS
5	CLEAR KEY	11	PROGRAM UP(+)/DOWN(-) KEYS
6	STORE KEY	12	PANEL DOOR

DISASSEMBLY INSTRUCTIONS

BACK CABINET REMOVAL

Remove 6 screws residing on the back cabinet and carefully separate the back cabinet from the front cabinet.

MAIN CHASSIS REMOVAL

Grasp both sides of the main chassis, pull it backward smoothly.

SPEAKER ASSY REMOVAL

1. Remove P602 connector between the speaker and the main chassis.
2. Remove 4 screws holding SPEAKER to the front cabinet.

TXT BOARD REMOVAL

Grasp the center area of the TXT Board and then pull it up.

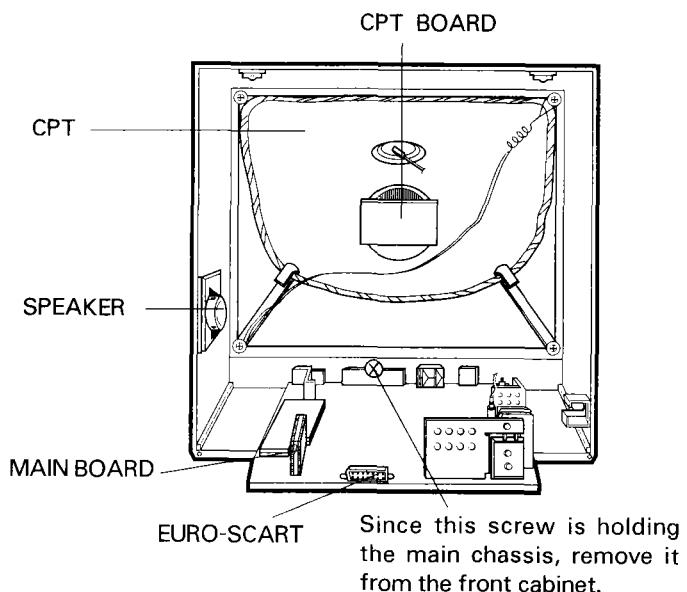
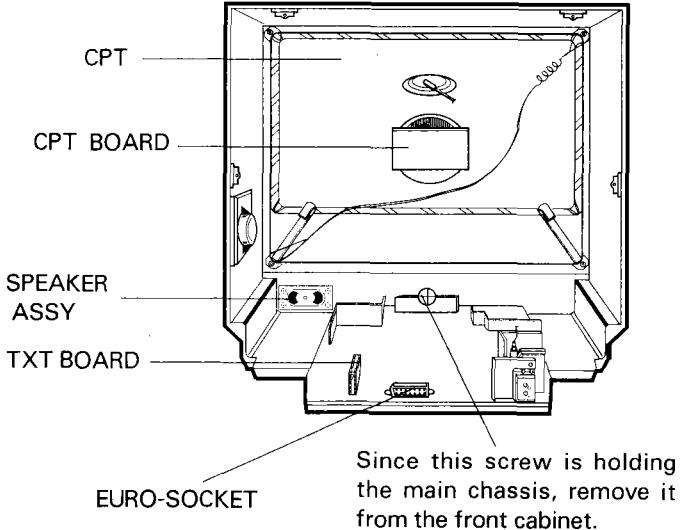
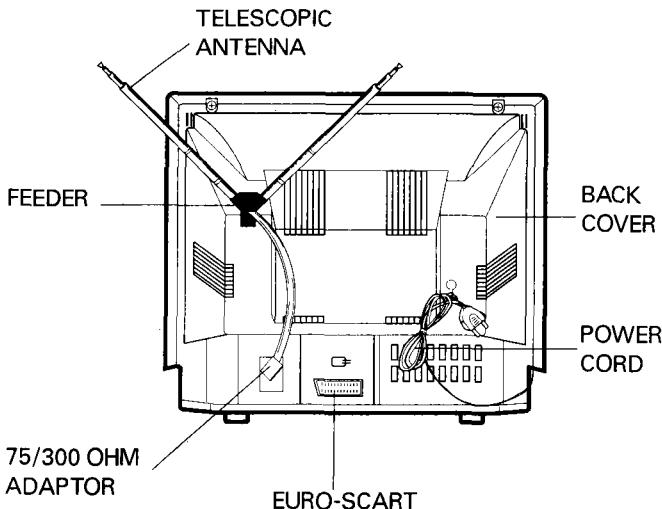
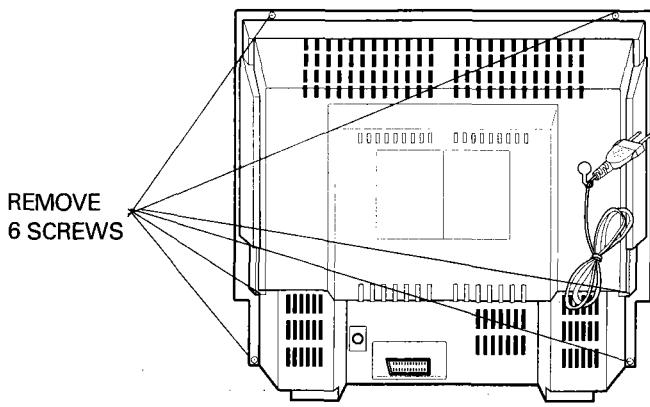
CPT REMOVAL

1. Pull out the CPT board from the CPT neck.
2. Place the front cabinet on soft material so as not to mar the front surface or damage control knobs.
3. Remove 4 nuts securing the picture tube mounting brackets to the front cabinet.
4. Carefully separate CPT from the front cabinet.

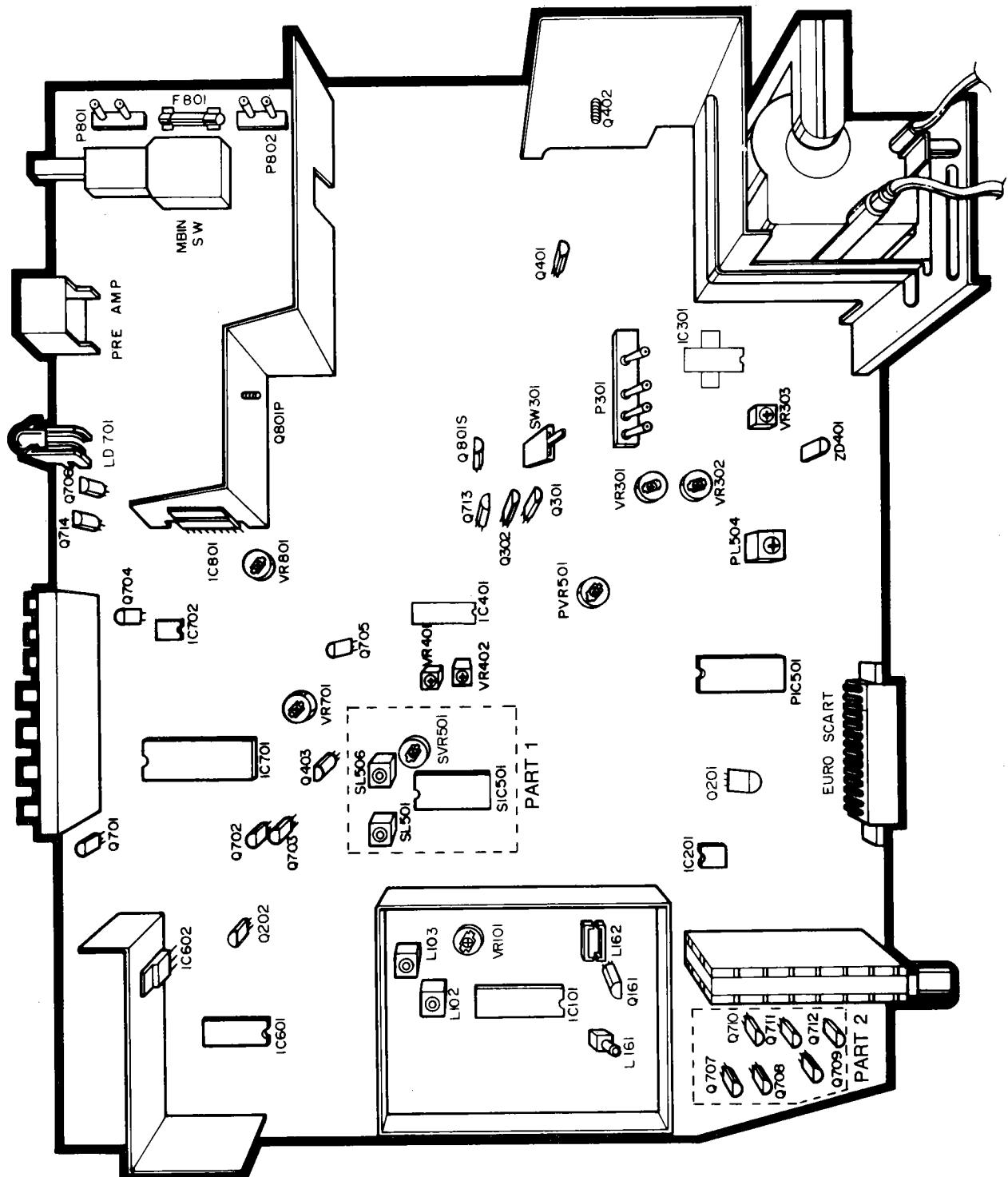
PICTURE TUBE HANDLING CAUTION

Due to high vacuum and large surface area of picture tube, great care must be exercised when handling picture tube. Always lift picture tube by grasping it firmly around faceplate.

NEVER LIFT TUBE BY ITS NECK. The picture tube must not be scratched or subjected to excessive pressure as fracture of glass may result in an implosion of considerable violence which can cause personal injury or property damage.



PARTS LOCATION OF MAIN CHASSIS



*** NOTICE:**

In case of the model without teletext, get rid of Q301, Q302.

In case of the model without SECAM system, get rid of PART 1.

In case of the model with PAL-I system, get rid of PART 1, 2 and L161.

PC-04A ALIGNMENT INSTRUCTIONS

1. APPLIANCE

This instruction is applicable for all models using the PC04A CHASSIS.

2. SPECIFICATION

2-1 CIRCUMFERENCE CONDITION

If there is no particular guidance, adjust under the following condition.

- 1) Circumference Temperature: $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$
- 2) Relative Humidity: $65\% \pm 5\%$

2-2 NECESSARY INSTRUMENTS

3. ALIGNMENT

3-1 VIF ALIGNMENT

- 1) Connection Diagram of Equipments

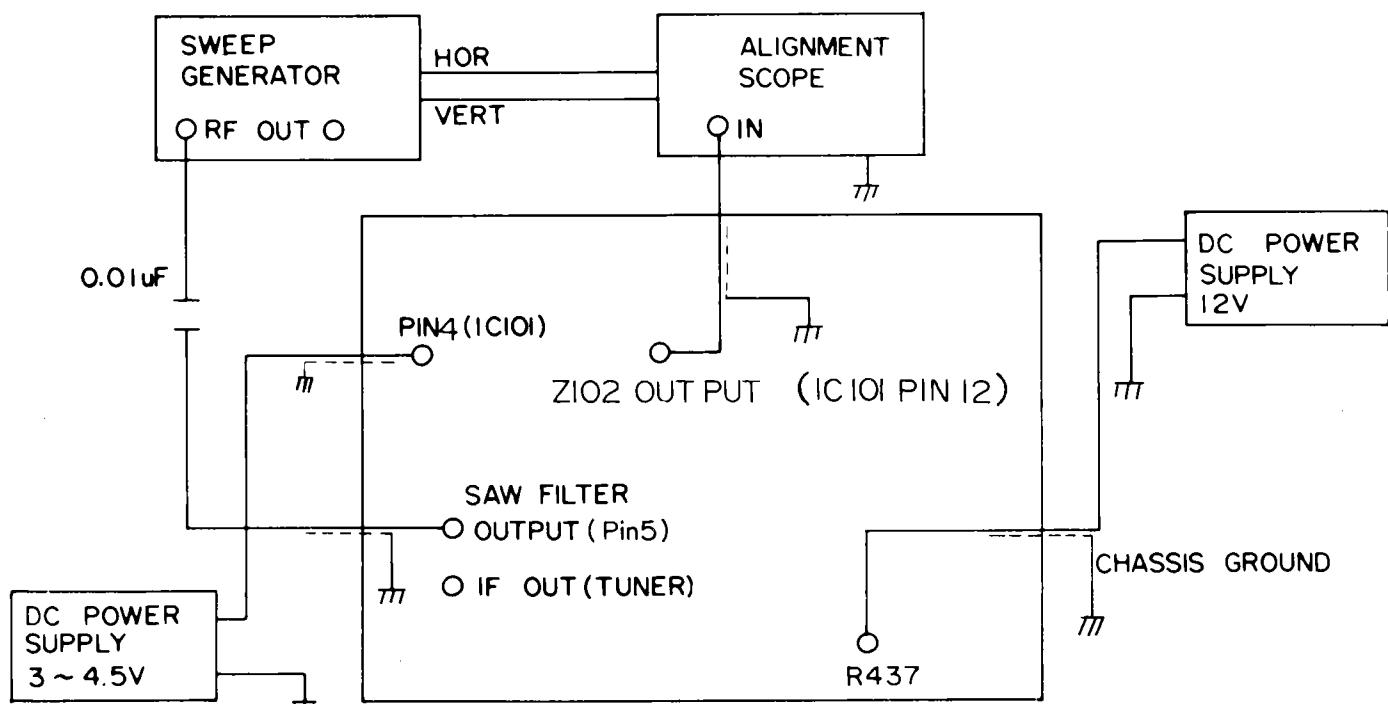


Figure 1

* Connect the ceramic condenser (0.01uF) between RF-OUT terminal of the SWEEP GENERATOR and SAW FILTER OUT terminal.

2) VIF Detection Coil Alignment

- a) Do the connection as shown in figure 1 and then DC power suppliers on.

- b) Adjust L103(Detection Special Quality Adjustment Coil) in order to minimize the PICTURE CARRIER MARK as shown in figure 2.

(For Mark Frequency of Each System, refer to the below note (*)).

* Each frequency carrier of system.

PAL B/G: 38.9 MHz

PAL I: 39.5 MHz

PAL M: 39.5 MHz

PAL D/K: 38.9 MHz

PAL/SECAM B/G: 38.9 MHz

PAL/SECAM B/G, D/K: 38.9 MHz

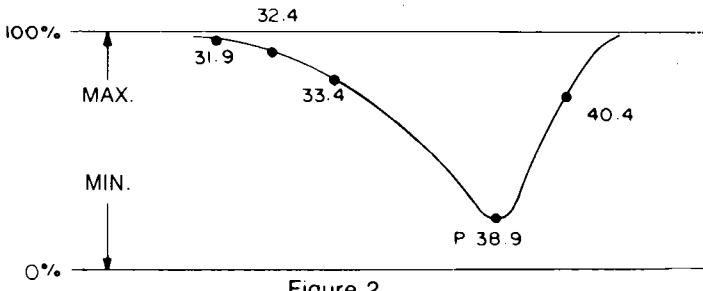


Figure 2

- 3) ASC (40.4 MHz) Alignment (L161)
 - a) This alignment is only applicable to the model with ASC TRAP for FTZ.
 - b) The connection of alignment is the same as figure 1 but connect RF OUT of the SWEEP GENERATOR to TURNER IF OUTPUT terminal of Main PCB.
 - c) Turn L161 counterclockwise so that CORE may be appeared to maximum and then adjust it clockwise.
 - d) After setting output of SWEEP GENERATOR to maximum, increase IF AGC voltage of pin 4 (IC101) about 5V so that waveform may be distinguished the variation of L161 in the saturated state.
 - e) Adjust L161 so that 40.4MHz POINT may be maximum.

3-2 AFT ALIGNMENT (L102)

- NOTE**) Cut the SLIT part of the C106(+) before adjusting.
- 1) The connecting of equipments is the same procedure as that above b) item. but the connection position of Alignment Scope must be changed from output terminal of Z102 to pin 12 of IC101.
 - 2) Set VERTICAL GAIN of SCOPE to 1Vp-p/dIV and set the SWEEP GENERATOR output to a low state possibly.
 - 3) Adjust L102 so that it may be the same as shown in figure 3.

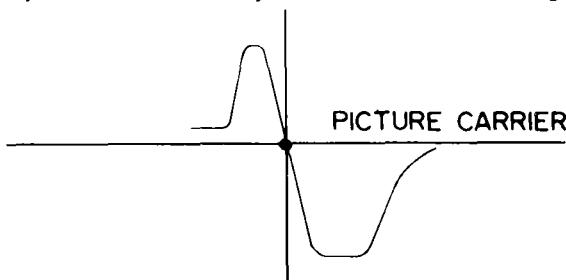


Figure 3 (AFT Alignment Waveform)

- 4) After finishing the adjustment, connect SLIT of the C106(+).

3-3 MAIN B + (112V or 118V DC) ALIGNMENT

- 1) Turn on the TV set.
- 2) Receive the standard colour signal. (digital pattern)
- 3) Set the portion of colour, Bright, Contrast to the maximum.
- 4) Adjust VR801 so that the voltage of J122(TP6) may be 112V for the model smaller than 21" and 118V for 21" model.

3-4 HORIZONTAL SYNCHRONIZATION ALIGNMENT

- 1) Receive the standard color signal on the TUNER ANTENNA.
- 2) Connect SYNC. SEPARATOR INPUT SIGNAL to the Ground. (Connect pin 11 of IC401 to the GND... J110, J111, TP3 part)
- 3) Adjust VR401 so that the screen may be maintained the synchronization in a horizontal and vertical direction.
- 4) Remove the connection of pin 11 of IC401 from GROUND.

3-5 HORIZONTAL CENTER ALIGNMENT (HOR.SHIFT ALIGNMENT)

- 1) Receive the standard colour signal.
- 2) Adjust the VR402 so that the screen may be the Geometric center.

3-6 VERTICAL OSCILLATOR FREQUENCY ALIGNMENT

- 1) Adjust the set in no signal condition.
- 2) Connect the frequency COUNTER to the CONNECTOR part (R304) which is connected with vertical DY.

(Connect the (-) side of the connector to the heat sink of the chassis)

- 3) Adjust VR302 so that FREE-RUN frequency may be $46.00 \pm 0.5\text{Hz}$.

3-7 VERTICAL AMPLITUDE AND LINEARITY ALIGNMENT (VERT. HEIGHT AND LINEARITY ALIGNMENT)

- 1) When brightness of a screen is minimum as receiving the FuBK TEST PATTERN, adjust VR301 so that the outline signal of the upper and lower parts of the great circle on screen may be coincide with the edge of a effective screen.
- 2) After changing the signal to Digital, adjust VR303 so that the length of upper and lower of the great circle may be equal.

3-8 VERTIICAL CENTER ALIGNMENT

Adjust SW301 (Vertical Center SVC.S/W) so that CENTER of PATTERN may coincide with the Geometric center of an effective CPT screen.

3-9 COLOUR SYNCHRONIZATION ALIGNMENT

- 1) Receive the standard colour signal.
- 2) Set the Contrast, Brightness, Colour VR to maximum.
- 3) Connect the COLOUR SATURATION terminal to 12V.
- 4) Short the INPUT pin 21 (B-Y), PIN 22 (R-Y) of the IC501.
- 5) Adjust the PTC501 (TRIMMER CAPACITOR) so that COLOUR BAR should not flow down.
- 6) After finishing adjustment, remove the connection of item 3) and 4).

3-10 PAL MATRIX ALIGNMENT

- 1) Set the Contrast, Brightness, Colour Control VR to the maximum.
- 2) Receive the DEM. PATTERN (Colourless Pattern).
- 3) Connect the SCOPE to the B-OUT (Pin 16 of PIC501).
- 4) Adjust PVR501 to obtain a minimum fluctuation (A straight line) in figure 4-1.

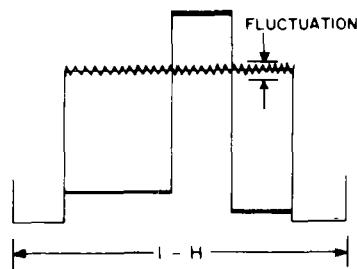


Figure 4-1. PVR501 Alignment

- 5) After changing the PATTERN into the PAL COLOUR BAR signal, adjust PL504 so that the fluctuation may be minimum and a straight line as shown in figure 4-2.

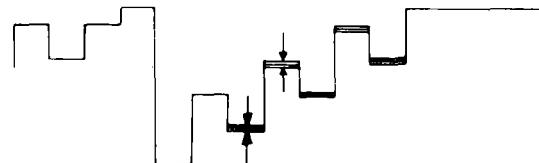


Figure 4-2. PL504 Alignment

- 6) Repeat the adjustment of the above items 4), 5) again by varing the pattern and then confirm.

3-11 RF AGC ALIGNMENT

- 1) Receive the standard colour signal ($60\text{dB} \pm 1\text{dB}$), but in case of PAL4, receive $70\text{dB} \pm 1\text{dB}$.
- 2) Connect DIGITAL MULTIMETER to AGC terminal of the TUNER (J20, TP1).
- 3) Refer to below diagram and then adjust VR101.

Tuner System	B/G	I	B+H	D/K
ALPS	$4.8 \pm 0.1\text{dc}$	$4.9 \pm 0.1\text{dc}$	$4.8 \pm 0.1\text{dc}$	$4.8 \pm 0.1\text{dc}$

* Select the best point in accordance with the TUNER, SYSTEM or per production LOT.

3-12 SCREEN AND WHITE BALANCE ALIGNMENT

- 1) Set the Colour, Brightness, Contrast alignment VR to the minimum.
- 2) Set the BIAS ALIGNMENT VR(VR901-903) and DRIVE ALIGNMENT VR(VR904-905) of CPT BOARD to the mechanical center position.
- 3) Tune in channel No. 05CH.
- 4) Vary SCREEN VR of FBT until the screen will be cut off.
- 5) As using Color Analyze White Balance checker, adjust it to be X equal to 281 ± 8 and Y equal to 288 ± 8 in the Low light(4-5ft.L) and High Light(40-50ft.L).

3-13 FOCUS ALIGNMENT

- 1) Receive the standard Digital signal and adjust the Contrast, Brightness, Colour to be maximum.
- 2) Adjust it so that HALO situation should not appear on the portions as follows. (Center, edges and logo portion)

4. SECAM ALIGNMENT (NOT IN USE)

4-1 SECAM BELL FILTER ALIGNMENT

- 1) Receive the SECAM BAR PATTERN.
- 2) Connect the LOW CAPACITANCE PROBE to pin 4 of SIC501. (Using FET PROBE)
- 3) Adjust SL501 to maximize and flatten the waveform.
- 4) In case of not using FET PROBE, precede the above adjustments (1 to 3). And then adjust the GS standard SECAM SIGNAL so that the COLOUR of 3.8MHz portion may be red and minimize the MAGENTA COLOUR of the COLOUR BAR and the shadows of the BLACK LEVEL BAR boundary.
- 5) In accordance with necessary, adjust the DIGITAL PATTERN signal with the maked scale.

4-2 SECAM REFERENCE COIL ALIGNMENT

- 1) Connect OSCILLOSCOPE PROBE to pin 24 of SIC501.
- 2) Ground pin 11 and pin 16 of SIC501. (Only SECAM MODE)
- 3) Turn out SVR501 clockwise to the maximum.
- 4) Adjust SL506 so that the DC LEVEL of the parts A,B (figure 6) may coincide.

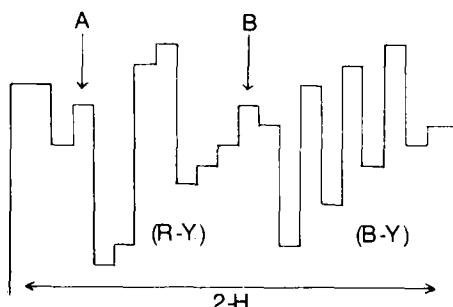


Figure 6. Pin 24 Waveform

- 5) Move the OSCILLOSCOPE PROBE to pin 10 of the SIC 501.
- 6) Adjust SVR501 so that the right and left LEVEL of R-Y and B-Y part may be equal and the waveform of part A may be coincide to be one.

To be equaled the whole size

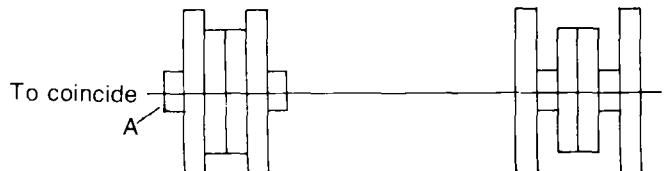


Figure 6. Pin 10 Waveform

- 7) If the field color differs from that of the pal signal, leaving SL506, adjust SVR501 in full detail.

5. OSD POSITION ALIGNMENT

- 1) Turn on the set and adjust it to be non-signal condition.
- 2) Push the SEARCH KEY.
- 3) Adjust VR701 so that the size of Analogue TUNING BAR may be coincide with the right and left side of the screen.

6. TELETEXT(F6) ALIGNMENT

This alignment is applied only to the TV that contains the TXT receiver (111-D67A).

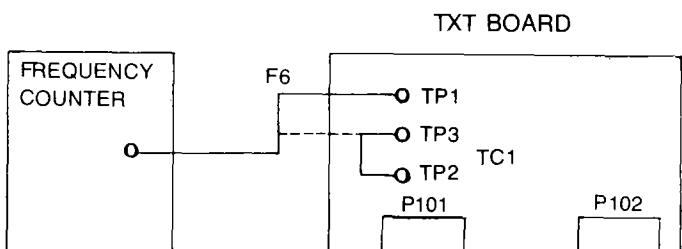


Figure 7. Connection Diagram of the Instruments

2) PREPARATION OF ALIGNMENT

- a) Connect with the Instrument shown as in figure 7. (TP2, TP3 are GND).
- b) Receive the TV signal including the TXT signal on the TV Antenna. (Input = RF signal LEVEL must be $80 \pm 10\text{dBuV}$.)
- c) Change the TV to the TXT MODE.

3) ALIGNMENT

Adjust TC1 so that TP1(F6) Frequency being shown with the Frequency Counter may be between 6,000,050 Hz and 6,000,150 Hz.

PURITY AND CONVERGENCE ADJUSTMENT

CAUTION: Convergence and Purity have been factory aligned. Do not attempt to tamper with these alignments. However, the effects of adjacent receiver components, or replacement of picture tube or deflection yoke may require the need to readjust purity and convergence. Convergence magnet assembly and rubber wedges need mechanical positioning following the figure 8. Before attempting any convergence adjustments this receiver should be operated for at least fifteen minutes. If adjustment is required the adjustments should be made in the following sequence.

COLOUR PURITY ADJUSTMENT

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Turn the CONTRAST and BRIGHTNESS controls to maximum.
3. Select the purity pattern consisted of green only on the pattern generator.
4. Loosen the clamp screw holding the yoke, and slide the yoke backward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 9) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, center the raster vertically.
7. Move the yoke slowly forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check purity of the red and blue rasters by selecting the purity pattern of pattern generator.
9. Obtain a white raster, refering to "WHITE BALANCE ADJUSTMENT".
10. Proceed with convergence adjustment.

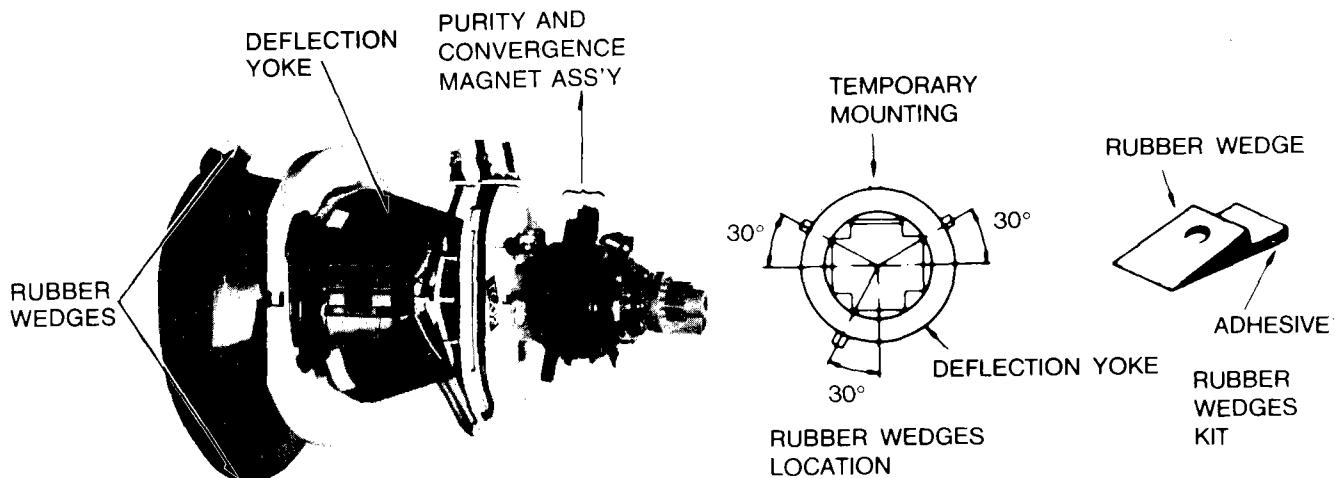


Figure 8

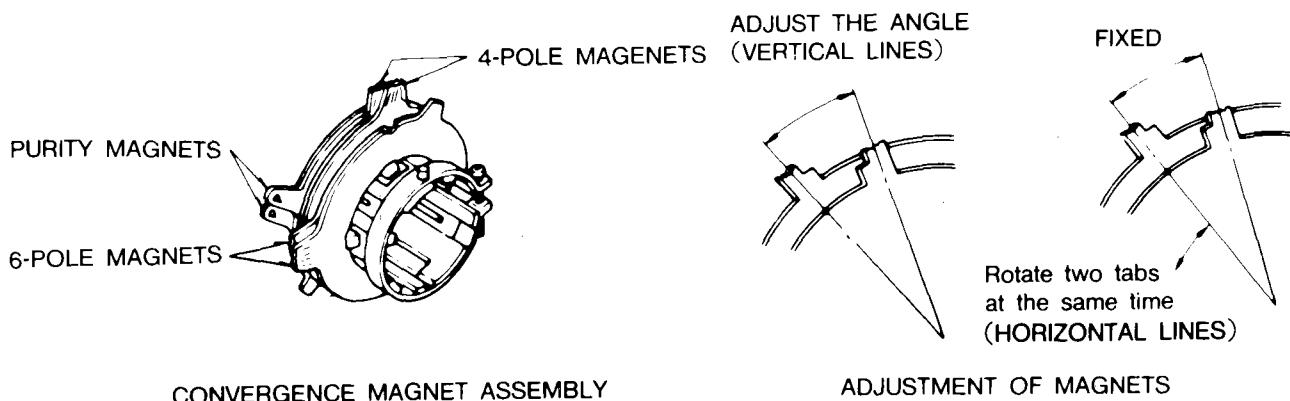


Figure 9

CENTER CONVERGENCE ADJUSTMENT

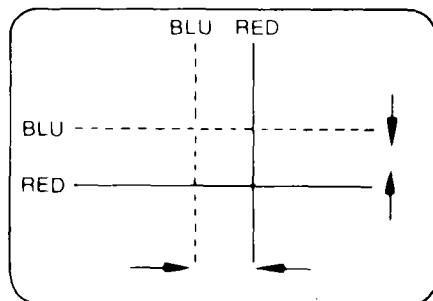
1. Receive crosshatch pattern with a colour bar signal generator.
2. Adjust the BRIGHTNESS and CONTRAST controls for well defined pattern.
3. Adjust two tabs of the 4-pole magnets to change the angle between them (See figure 9) and superimpose the red and blue vertical lines in the center area of the picture screen. (See figure 9.)
4. Turn both tabs at the same time keeping their angles constant to superimpose red and blue horizontal lines at the center of the screen. (See figure 10)
5. Adjust two tabs of 6-pole magnets to superimpose red/blue line with green one. Adjusting the angle affects the vertical

lines and rotating both magnets affects the horizontal lines.

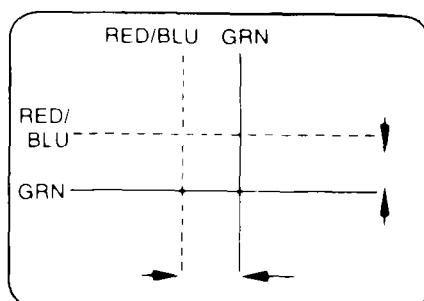
6. Repeat adjustments 1,2,3, keeping in mind red, green and blue movements, because 4-Pole magnets and 6-Pole magnets interact and make dot movement complex.

CIRCUMFERENCE CONVERGENCE ADJUSTMENT

1. Loosen the clamping screw of DY to allow the yoke to tilt.
2. Adjust DY to obtain a better convergence in the circumference by orbital movement of the front of the yoke, then secure the DY in appropriate position by placing the wedges as illustrates in figure 8. Tighten screw holding the DY. Stick 3 adhesive tapes on wedges as shown in figure 8.

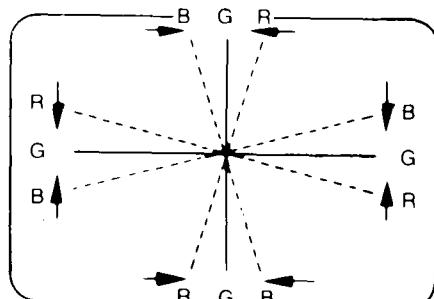


4-Pole Magnets Movement

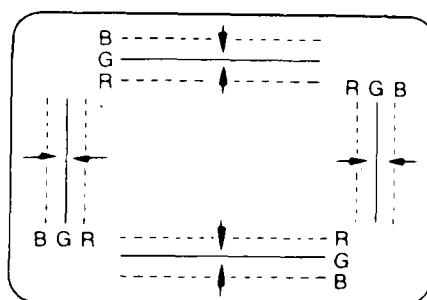


6-Pole Magnets Movement

Center Convergence by Convergence Magnets



Incline the Yoke up (or down)



Incline the Yoke right (or left)

Circumference convergence by Deflection Yoke

Figure 10 DOT MOVEMENT PATTERN

CIRCUIT DESCRIPTION

1. VIDEO IF AMPLIFIER CIRCUIT (IC101, μ4439BG)

1-1 The Basic Construction

Video IF Amplifier Circuit contains three symmetries of IF AMP (Video IF Dector & AMP, AFT circuit & AMP and AGC circuit). All of above functions are performed in IC101 (μ 4439BG).

The schematic diagram is same as figure 11.

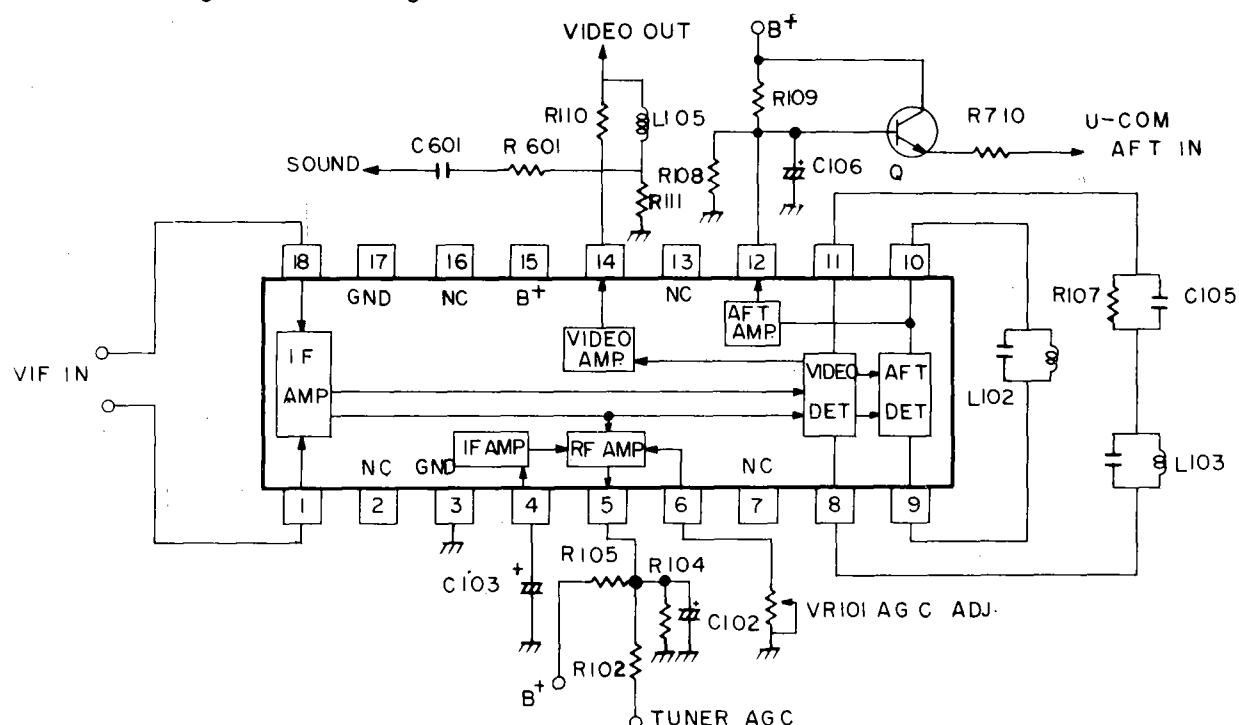


Figure 11. Schematic Diagram of IC101 (μ 4439BG)

1-2 Pin Configuration of IC101

Pin No.	Description
1, 18	IF IN
2, 7, 16	NC
3, 17	Ground
4	IF AGC storage capacitor
5	The output terminal of RF out
6	RF AGC control terminal
8, 11	Video detector
9, 10	AFT detector
12	AFT output
14	Video output <ul style="list-style-type: none"> • Composite video output level: 3Vp-p • White level: 5.2V • Black clamping level: 1.9 V
15	Supply voltage terminal <ul style="list-style-type: none"> • voltage: about 12 V_{DC} • current: 75 mA

1-3 Operating Description of the Circuit

After the air signal is varied into the IF signal through the TUNER of the TV set, this signal which is passed via PRE-AMP and SAW FILTER input into pins1, 18 of IC101 via. This IF signal passes into the three stage AMP. and then video signal is detected by the detector coil connected to pins8, 11. AFT signal is also detected by the dector coil connected to pins9, 10.

They are output each video signal in pin14, AFT signal in pin12 through the AMP.

Also, AGC voltage passes pin5 after adjusting VR101 (AGC adjustment variable resistor) connected pin6 and this voltage is connected to the AGC terminal of the TUNER, so that the AGC voltage is controlled.

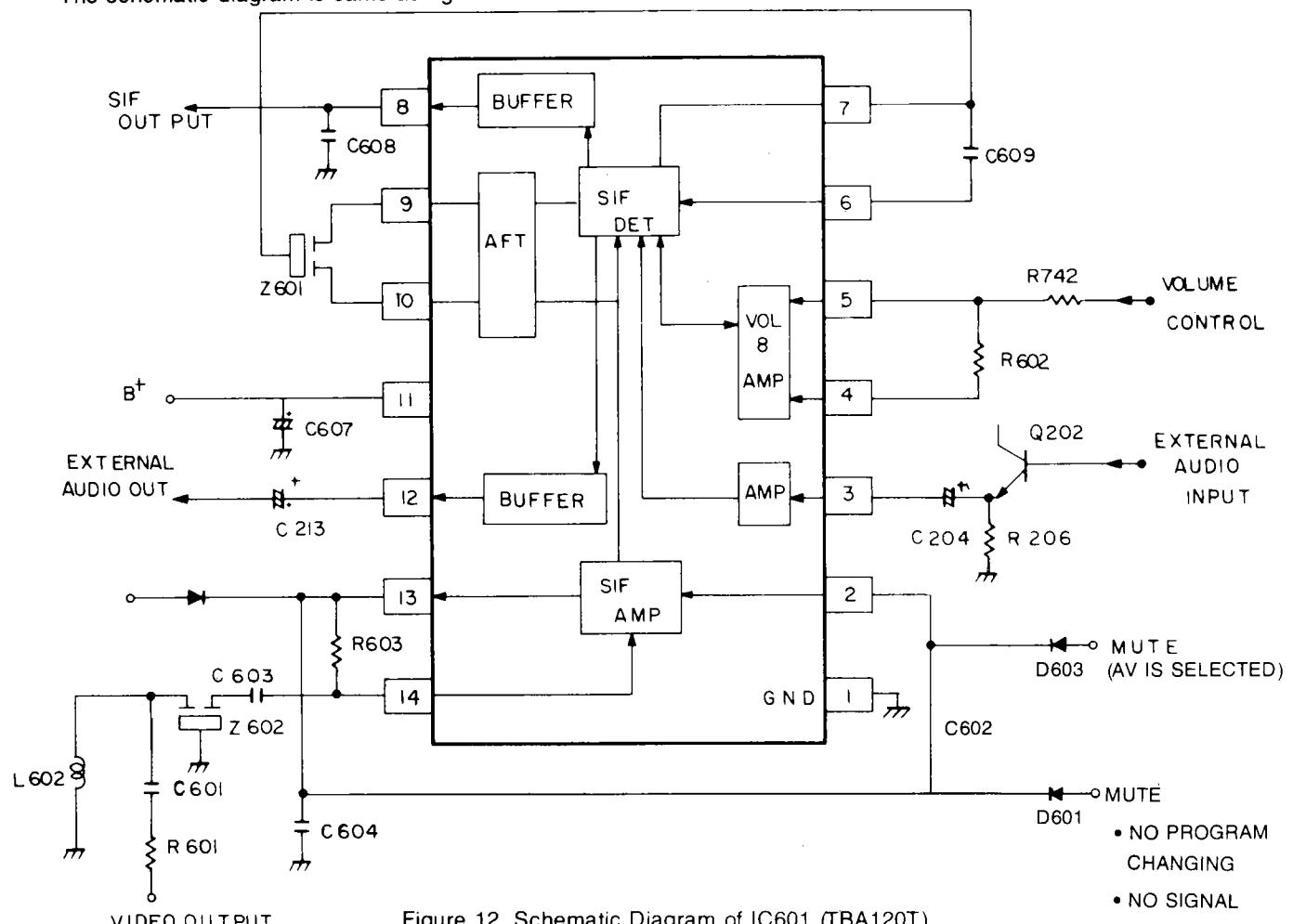
2. SOUND IF AMPLIFIER CIRCUIT (IC601, TBA120T)

2-1 The Basic Construction

SIF AMP as FM IF AMP & Demodulator is composed of SIF AMP, SIF Detector, sound output, volume control and external audio in/out.

These circuits are operated within IC601.

The schematic diagram is same as figure 12.



2-2 Pin Configuration of IC601

Pin No.	Description
1	Ground
2, 13	Sound Amp. Negative feed back terminal
3	External audio input terminal
4	Volume control reference terminal Reference voltage: 4.8V
5	Volume control terminal
6, 7	SIF detector.
8	SIF output Output voltage: 4V
9, 10	FM detector
11	Supply voltage terminal; 12V
12	External audio output

2-3 Operating Description of the Circuit

Sound carrier is detected by the composite video signal gone through band pass filter(BPF), (which is composed of R601, C601, L601) and ceramic discriminator (Z602), and it is applied to SIF AMP. (pin13).

The amplified signal is applied to the SIF Detector Terminal.

And, after detection, this signal outputs into pin8 through the Buffer Circuit.

This output signal is controlled, by inputting to pin5 volume level which is controlled by the μ -com (IC701).

The detected Audio Signal outputs into pin12 through the Buffer Circuit and this signal is the Audio output signal.

The Audio signal input from the external is input into pin3 and is detected through AMP and is output at pin8 through the Buffer Circuit.

3. HORIZONTAL DEFLECTION CIRCUIT (IC401, TDA1940)

3-1 The Basic Construction

Horizontal Deflection Circuit consists of Sync. Separator Circuit 01 & 02, Phase Comparator, Super Sandcastle(SSC) Pulse Generator, Horizontal Sync. output circuit, Vertical pulse Generator, burst gating Generator. Schematic Diagram of IC401 is same as figure 13.

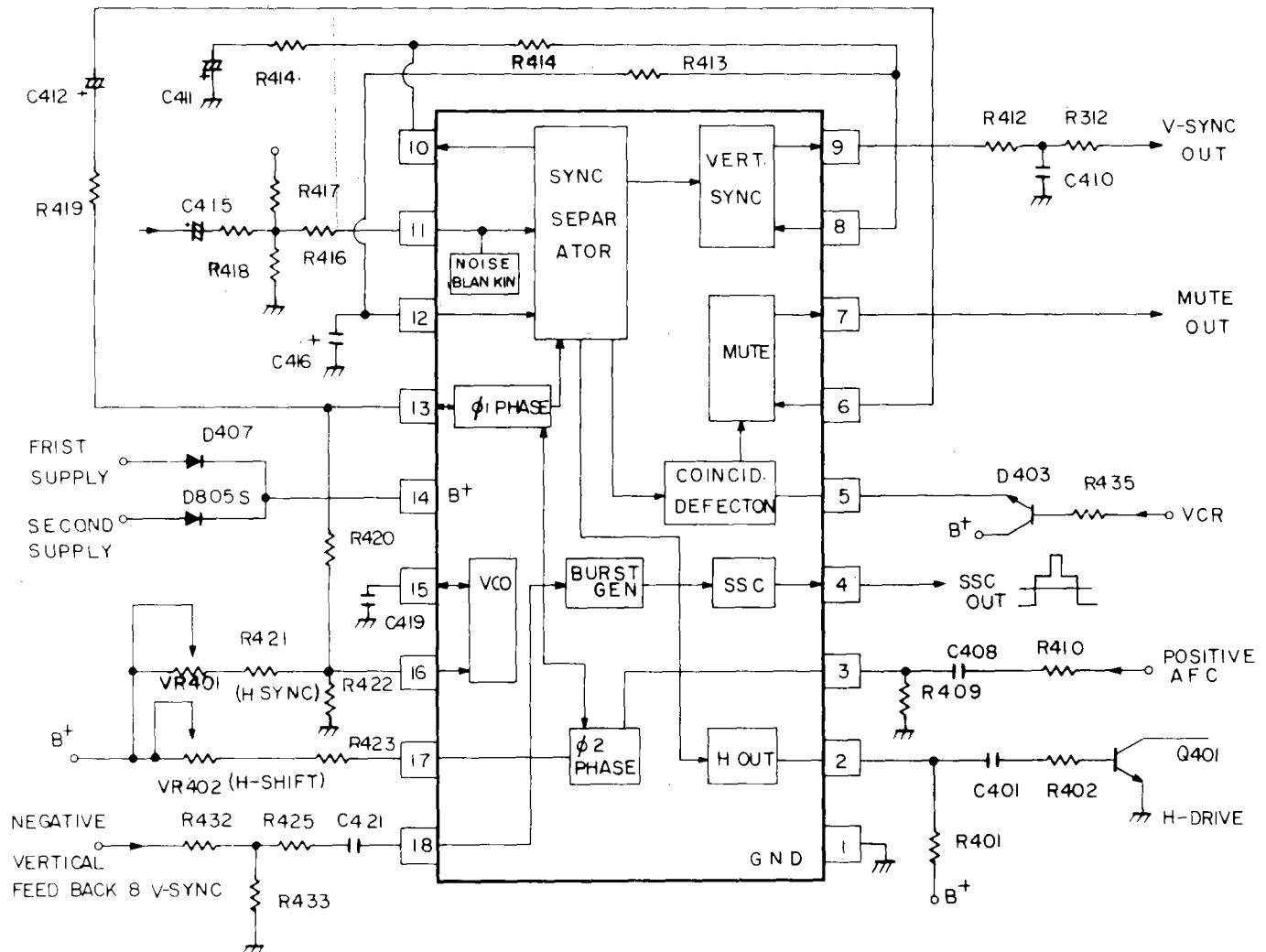


Figure 13. Schematic Diagram of IC401

3-2 Pin Configuration of IC401

Pin No.	Description
1	GND
2	Horizontal Sync output
3	Positive flyback pulse(AFC) input
4	Super sandcastle pulse(ssc) out
5	Output of coincidence detector In case of the external VCR Mode, used as the auto time constant switching terminal.
6	Input time-constant switching stage
7	If there is the broadcast signal, as the muting circuit output stage, it is high. In case of non-signal condition, keeps the low condition.
8	The reference stage for the vertical sync pulse
9	Vertical sync pulse output
10	Horizontal pulse separator H/V clamping stage
11	Video signal input stage
12	Reference input stage for line pulse separation
13	• First phase comparator • Used as H-sync of ON-SCREEN.
14	• Supply voltage stage • Supply voltage: 12V • Supply current: 40mA
15	Horizontal oscillator frequency control is selected with the time constant of R422 and C419.
16	• Horizontal oscillation frequency control stage. • Controls horizontal sync. with VR401
17	Second phase comparator stage (0, phase DET.)
18	• Vertical flyback pulse feedback input stage • Requires the negative vertical pulse. • Used as V-sync. of ON-SCREEN.

3-3 Operating Description of the Circuit

3-3-1. START-UP

If the power switch is ON, the supply voltage (12V) of SMPS transformer is applied to pin14 through D407. At that time IC401 begins to oscillate with the starting voltage, and the horizontal sync. pulse outputs through pin2. And then the horizontal sync. pulse is applied to Q401 (Horizontal Drive Transistor) through C401 and C402 to drive Q401, which cause that the second supply voltage supplied from FBT is applied to pin14 through D805S by loading the horizontal output circuit.

3-3-2. HORIZONTAL OSCILLATION AND PHASE SHIFT

The oscillation signal controlled by R422, C419 and VR401 makes the horizontal synchronizing signal which is divided by pins10, 11 and 12.

And then, by comparing with a part of compared-waveform vertical signal at the first phase and the second phase, the horizontal synchronizing signal makes the final output signal, and the phase shift is made by VR402.

3-3-3. SYNC. SEPARATOR

R417 and R418 connected to pin11 select the input level

which IC401 of the sync. separator circuit demands and the slicing level for the sync. separator.

And it is the important factor of selecting the level which checks whether the broadcasting signal is or not.

3-3-4. SUPER SANDCASTLE PULSE

The super sandcastle pulse output from pin4 is composed of three levels, and it is applied to pin8 of PIC501 (PAL chroma IC) and pin23 of SIC501. (SECAM decoder IC).

3-3-5. VCR MODE SECTION

If the high voltage is supplied to pin5 of IC401 from tuning μ -com, the second phase detector is changed to the fast mode, this mode is selected to operate by the VCR or A/V signal which is input from the external.

3-3-6. VERTICAL SECTION

Video signal is received through pin11.
The vertical sync. signal is output from 9.

By dividing the vertical sync. signal at the vertical sync. signal separator circuit which is connected to pins8, 9.

4. VERTICAL DEFLECTION CIRCUIT (IC301, TDA1170N)

4-1 Basic Construction

The Vertical Deflection Circuit consists of the vertical Sync. Input terminal, Ramp Generator, Vertical Sync. Circuit, Flyback Generator (Vertical output stage) Power Amplifier Circuit, Preamplifier Circuit.

The Schematic diagram of IC301 is same as figure 14.

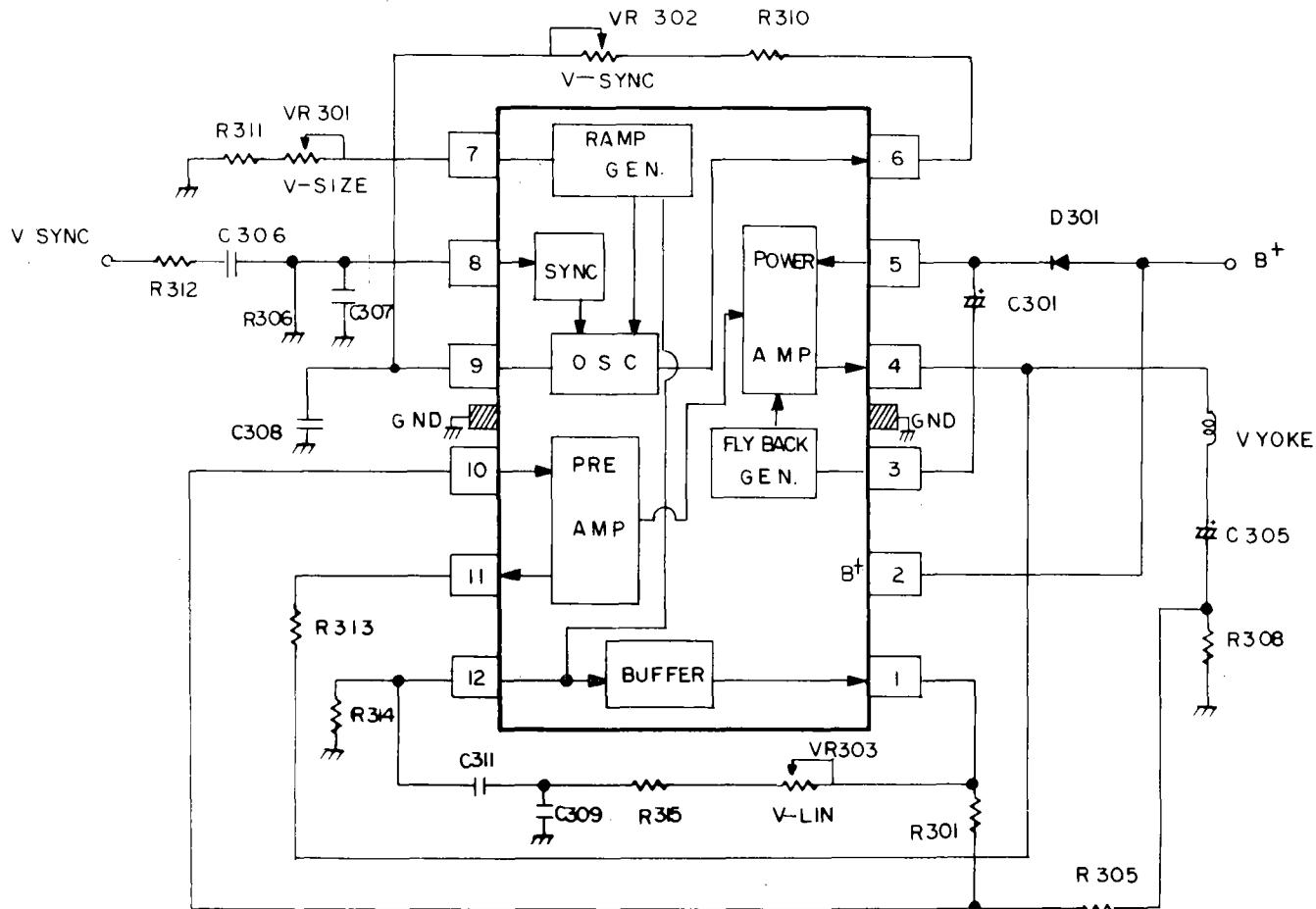


Figure 14. Schematic Diagram of IC301.

4-2 Pin Configuration of IC301

Pin No.	Description
1	Buffer stage
2	Voltage supply stage Supply voltage: 25V Supply current: 140mA
3	Flyback generator
4	Vertical output
5	The supply terminal of the vertical output circuit
6, 9	Vertical sync control stage. (Adjusts the frequency of V-sync. by VR302.)
7	<ul style="list-style-type: none"> Ramp generator stage Adjusts V-size by adjusting VR301.
8	Vertical sync. input & sync. amplifier
10, 11	Preamplifier reference input and vertical feedback
12	Adjusts the vertical linearity by adjusting reference current of the Ramp Generator.

4-3 Operating Description of the Circuit

The vertical sync. signal output through pin9 of IC401 enters the vertical sync. input circuit and AMP. circuit and makes the saw-form signal by the time constant of C308 connected to pin9 and R310 connected to pin6. And then VR302 controls the vertical sync. Also, this signal controls the vertical size by being supplied to the Ramp Generator circuit connected to pin7. The signal phase generated from the oscillator and the Ramp Generator is compared with the phase of the vertical feedback signal, so that this signal may be obtain through the vertical amplifier, is output-through pin4 and supplied to the deflection yoke.

5. CHROMA & LUMINANCE CIRCUIT (PIC501, TDA3560A)

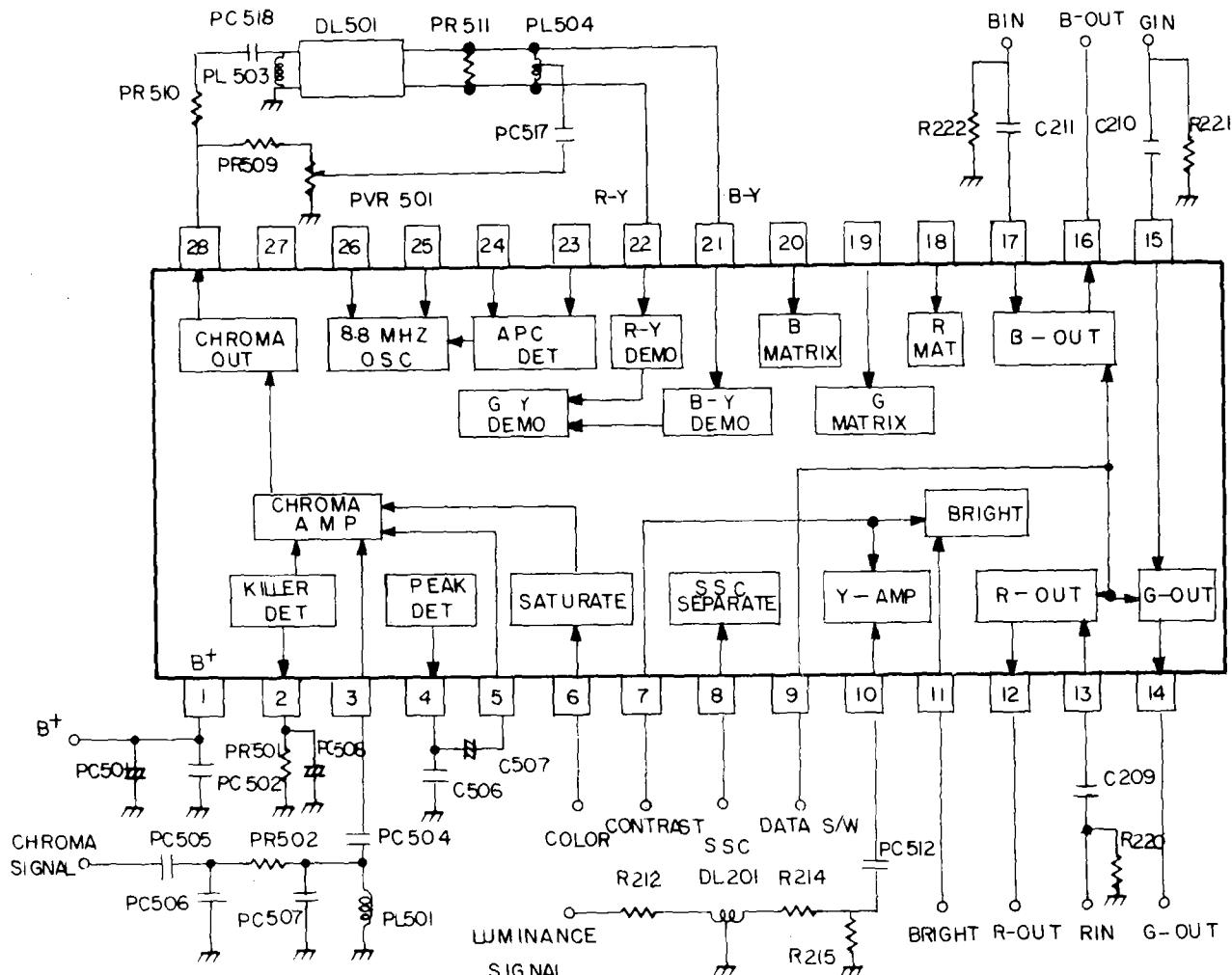


Figure 15. Schematic Diagram of PIC501 (TDA3560A)

5-1 Chroma Path

First, the chroma signal flows from B.P.F circuit into pin3 to be amplified, and then it flows into the second amplifier to be about 4Vp-p.

The amplifier signal output from pin28 is separated into two ways.

One flows through PR510, PC518 into 1H-Delay Line(DL501), the other flows through PR509, PVR501 and PC517 into mid-tap of PL504.

At PL504 two kinds of signal are vectored and adjusted, so that R-Y(u) signal is separated into B-Y(u) and B-Y(v). Each of the signals is demodulated inside pins21, 22, so that G-Y is generated by R-Y and B-Y.

In the course of demodulation, colour system is a carrier wave suppressed. Therefore pins25,26 oscillate to 8.86MHz to reconstitute a carrier wave.

The DC voltage the colour Burst of pins23,24 generates flows into oscillator for 8.86MHz and adjust the oscillating frequency and the false image so that they may coincide with original signal.

After 8.86MHz generated in this way decrease by half, R-Y and B-Y flow into G-Y demodulator in order to generate a complete demodulation.

On the other hand, pin2 discharges its duty of controlling the first amplifier of an outcome so that colour killer should not generate colour noise during receiving black and white signal or electric field less than 35dBm.

That is to say, pin4 detects the colour Burst and makes it generate DC voltage, which is supplied and controlled on pin2, and kills the DC voltage of pin2 less than 3V. Pin6 is a saturation control circuit.

5-2 Luminance Path

As much as chroma path needs to perform chroma signal, DL201 delays Luminance signal about 600nS, and then this flows into pin10 through PC512 and control contrast, brightness with pin7 and pin11 to be supplied for each of R.G.B matrix circuit luminance signal supplied on pin10 is commonly 0.5Vp-p.

5-3 R.G.B Data Input

When the DC voltage of pin9 is 1-3V, PIC501 is converted into it in data input and when each of R.G.B signals flows into pins 13,15,17 each signal is in output at pins 12,14,16. In case that DC voltage of pin9 remains less than 0.4V, normal state remains.

6. POWER SUPPLY (IC801, TDA4601)

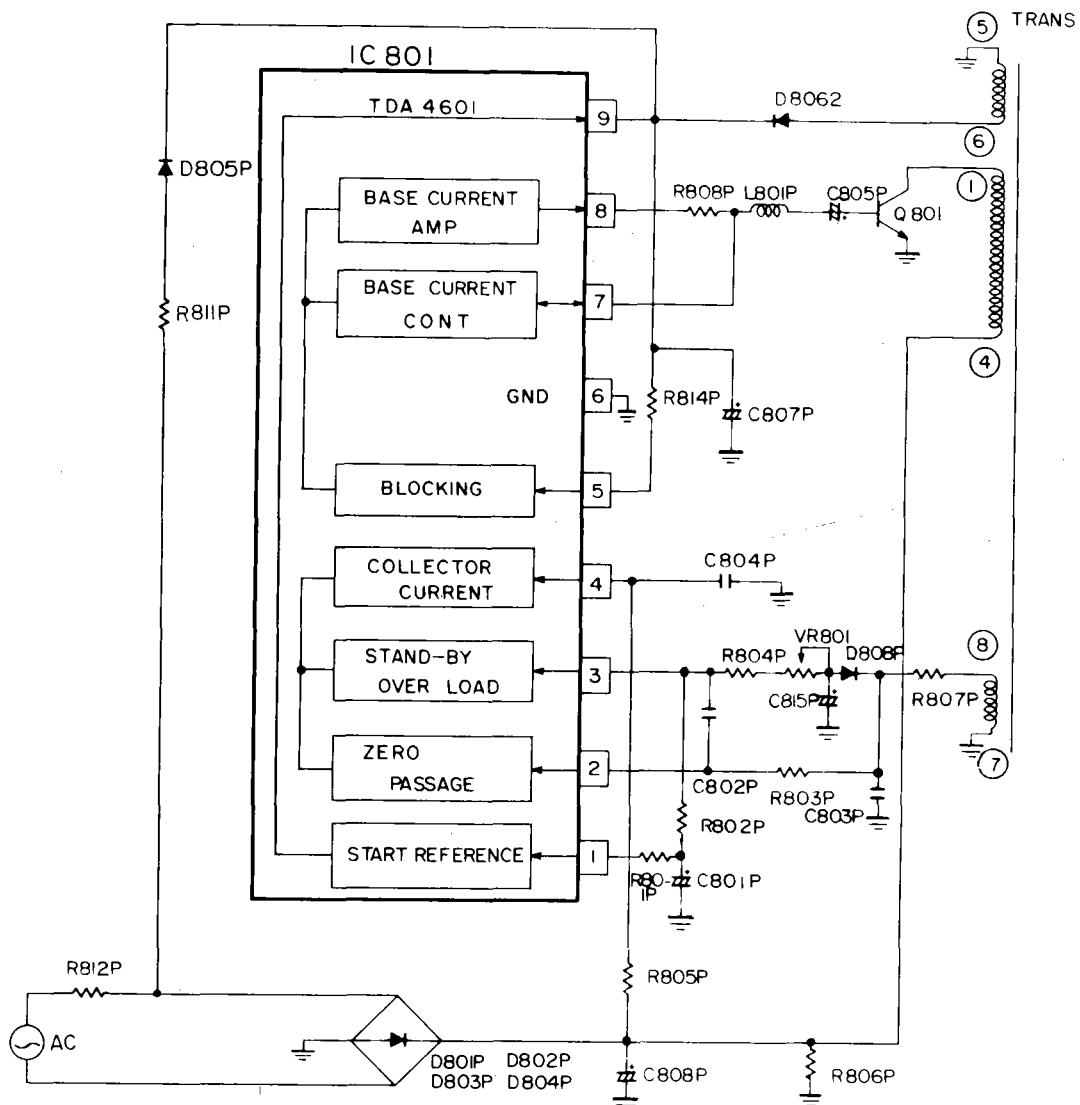


Figure 16. Schematic Diagram of IC801 (TDA4601)

6-1 Operating Description of the Circuit

START UP

If the power switch is ON, the voltage made by R811P, D805P and C807P, which is applied to pin9 of IC801.

If the voltage of pin9 is above 8.5V, IC801 begins the generation.

The voltage rectified by D801P, D802P, D803P, D804P and C808P, which is applied to pin4 of SMPS transformer (T801).

At this time, PWM signal outputs from pin7 of IC801 and drives Q801.

If Q801 is driven, the voltage generated at pins5,6 of SMPS TRANS is rectified at D806P and C807P, and supplied about 13V to pin9 of IC801 continually.

NORMAL OPERATION

The square wave output which makes Q801 on and off flows out of pin8, and its extend is adjusted by pin7.

Also the sources generated by the load variation are detected from the wire wound pins7,8 of T801.

The detected variation sources which is communicated with the D808P and C815P input the voltage to pin3.

Pin2 and pin3 have the function assisting the control operation.

And VR801 controls the secondary output voltage.

OVER LOAD OPERATION

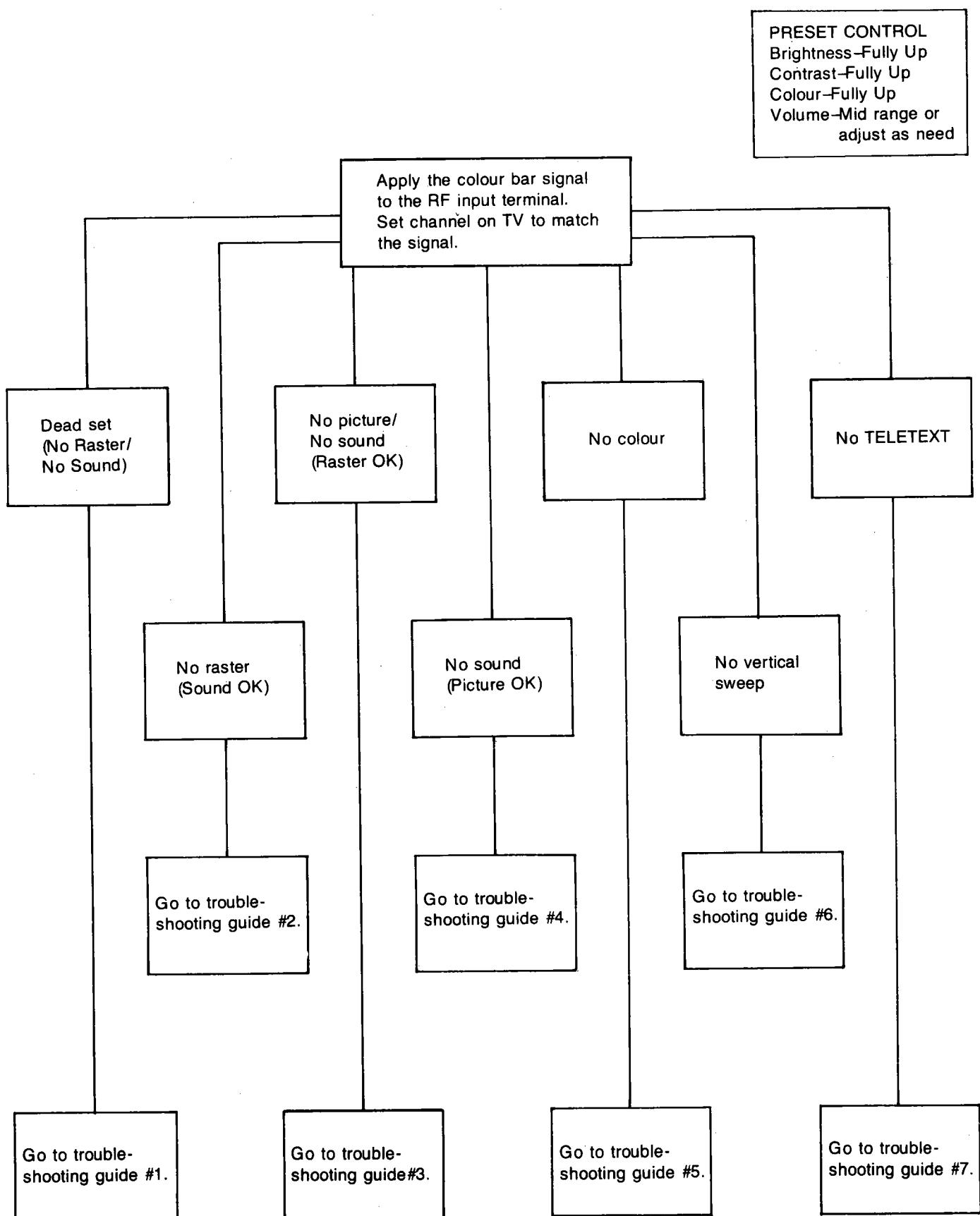
The maximum collector current is decided by R805P and C804P connected to the pin4. When this identified value is exceeded over load operation, fix R805P for 270K ohm and change the value of C804P to adjust the maximum over load.

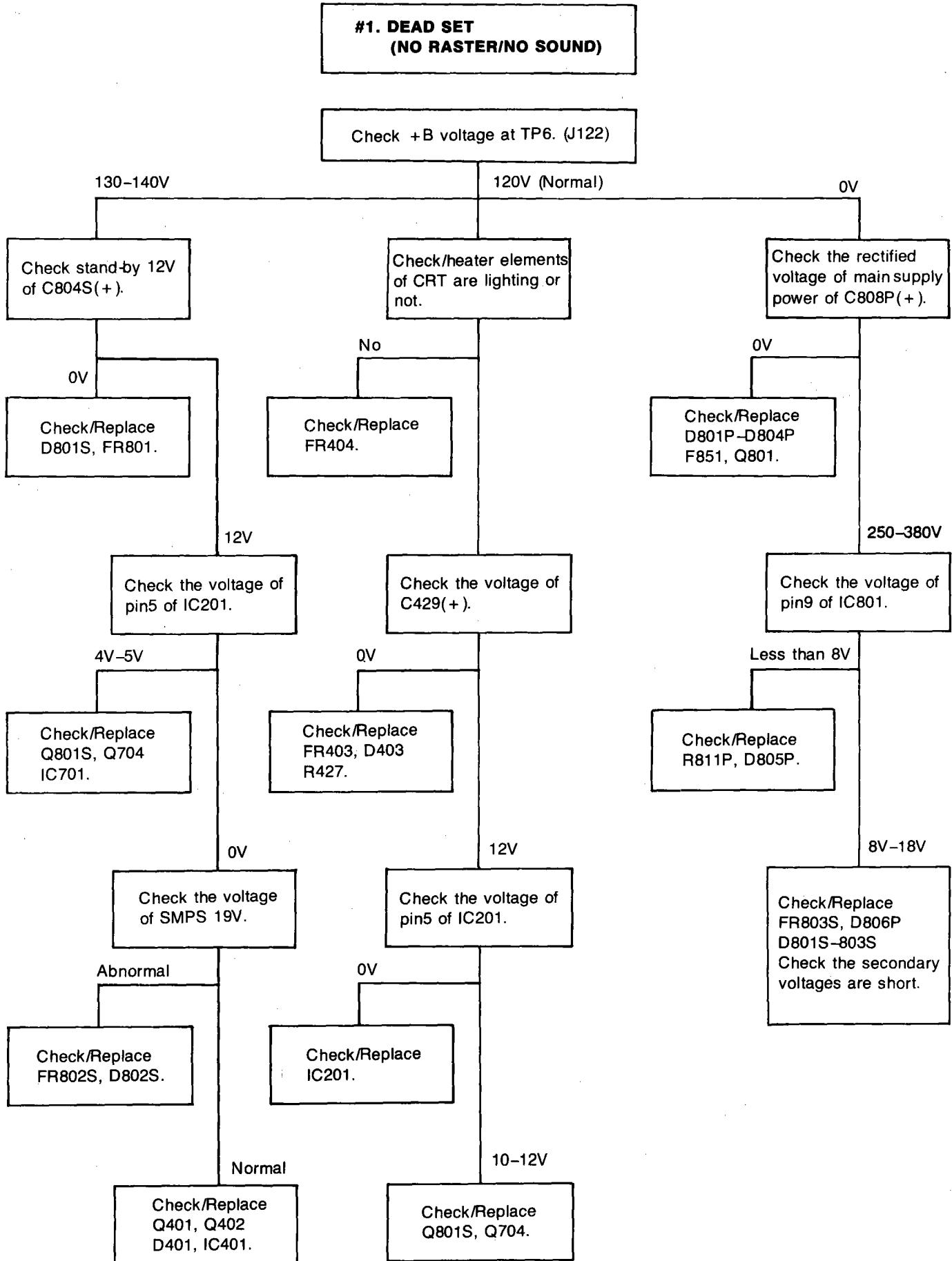
If you use a big capacitor of C804P, the maximum load electric power will increase.

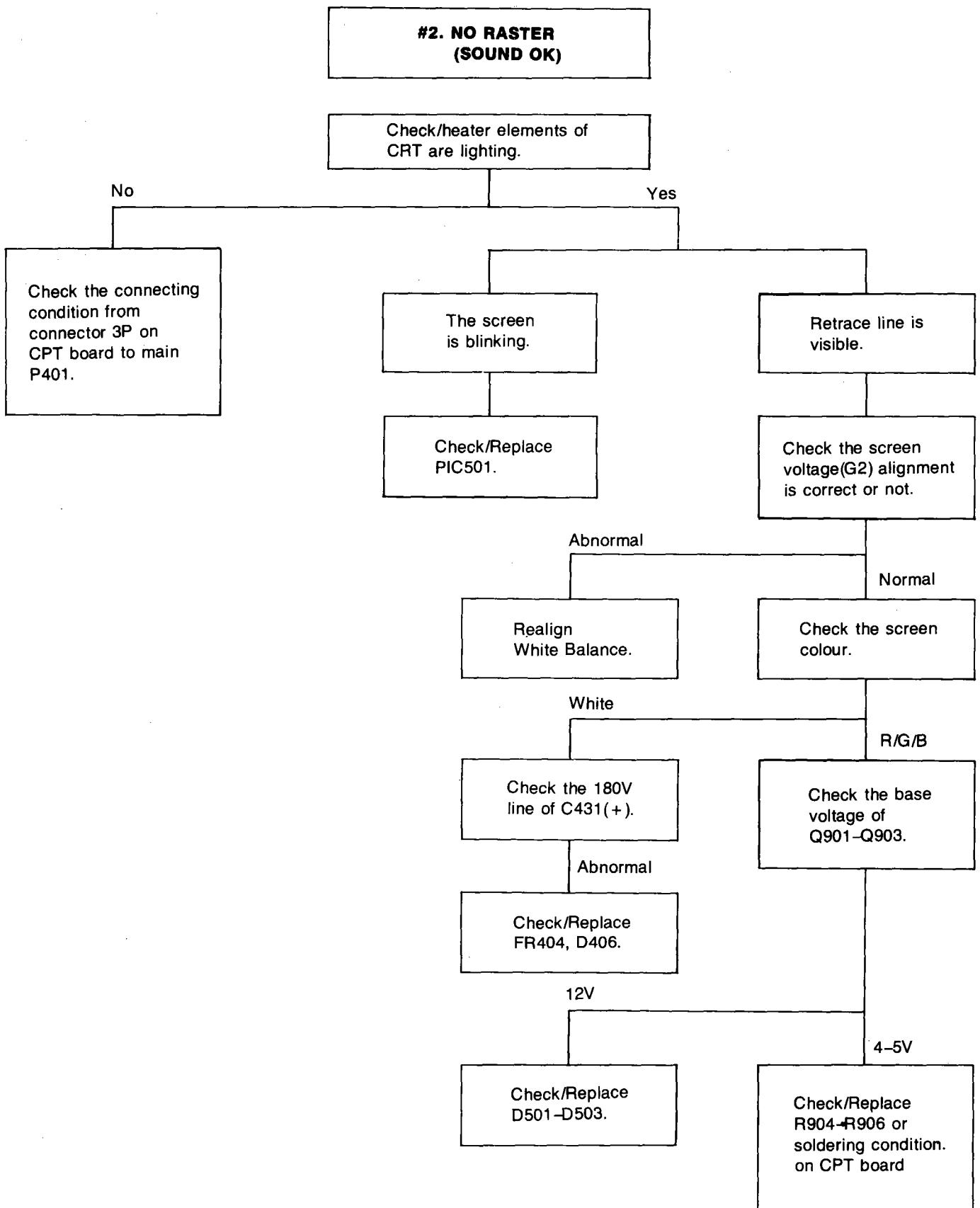
HIGH VOLTAGE PROTECTION

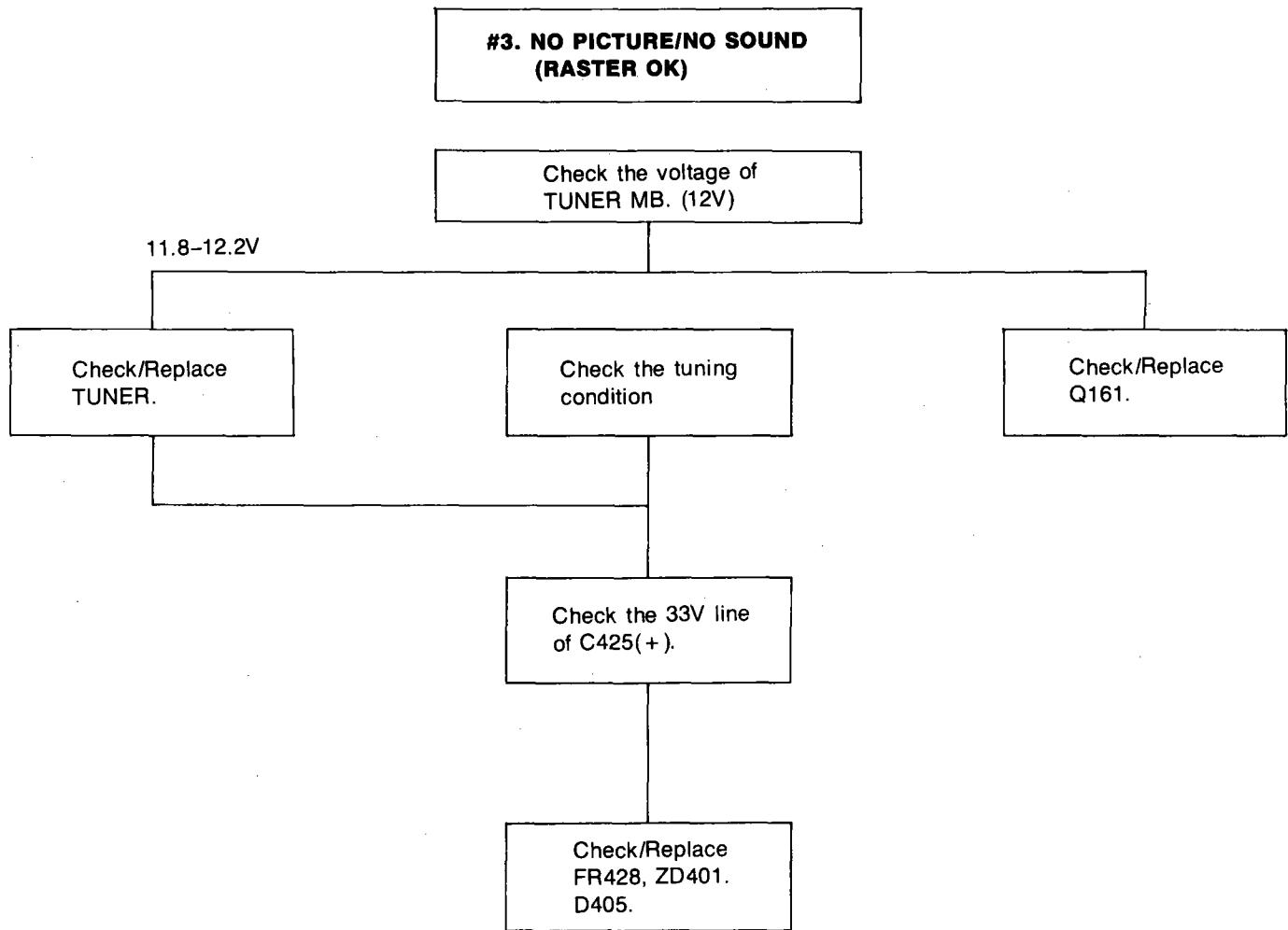
This is decided by R814P connected at pin5 if the voltage of pin5 increase above the fixed voltage, the switching motion will stop.

TROUBLESHOOTING GUIDE

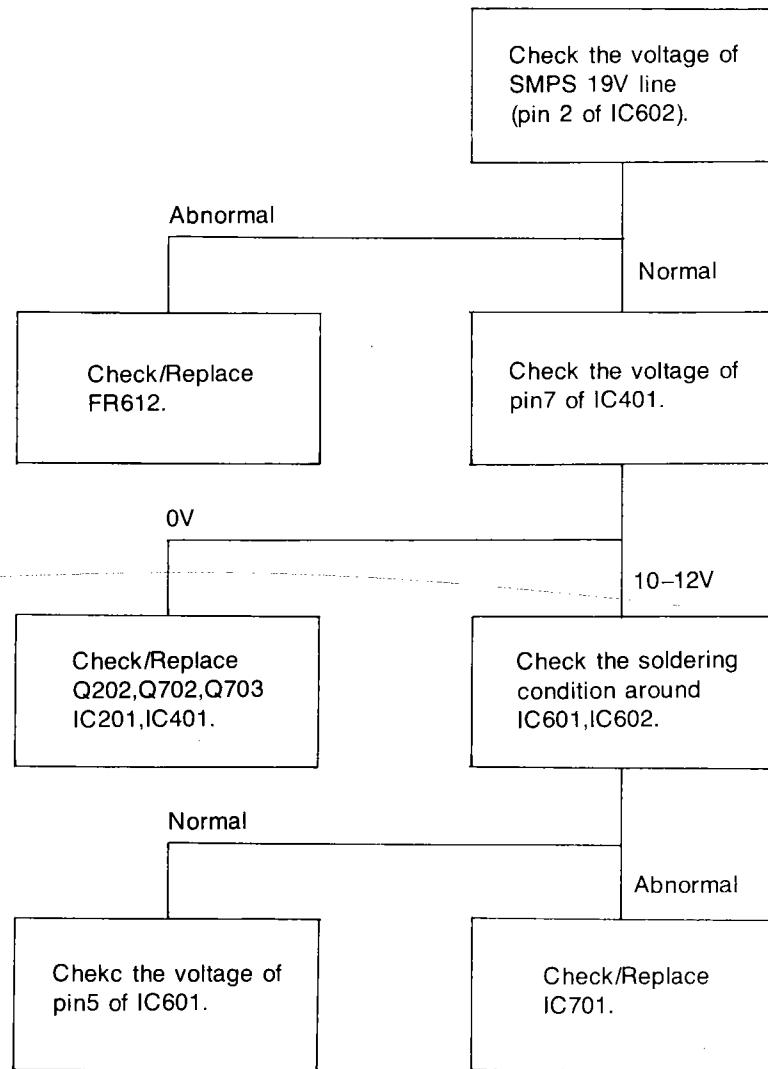






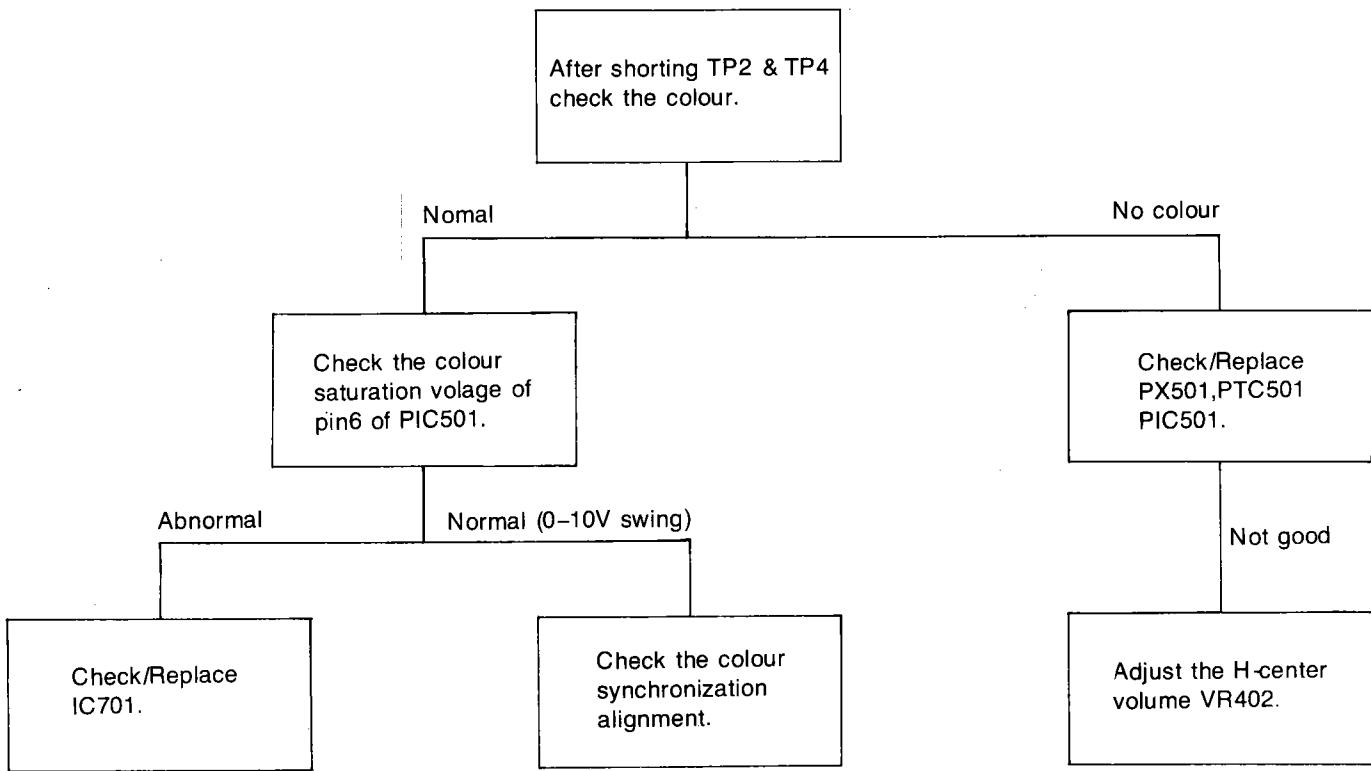


**#4. NO SOUND
(PICTURE OK)**



NOTE:
Sound is muted whenever
the screen is noise con-
dition, that is, broadcast-
ing signal is not found.

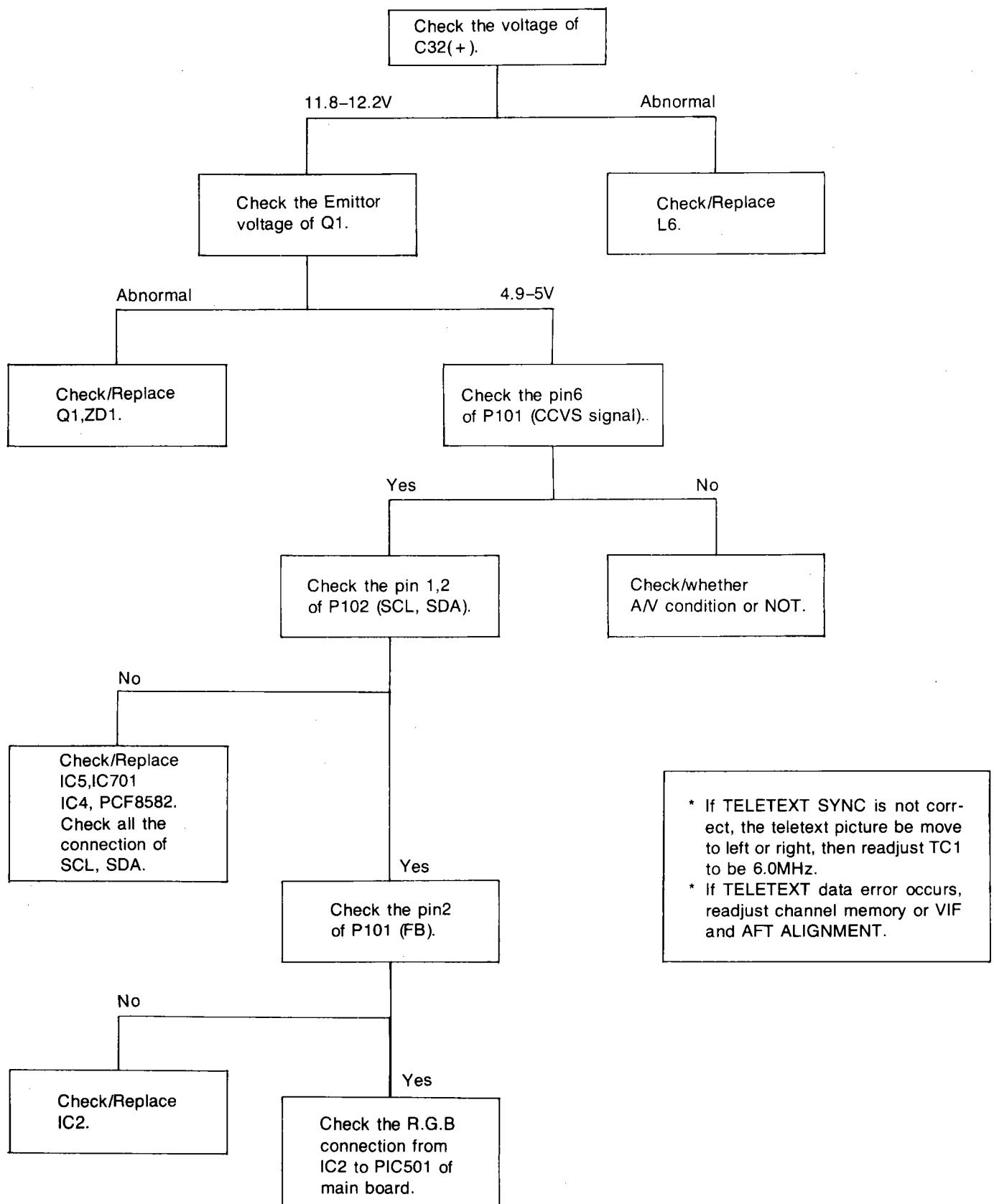
#5. NO COLOUR



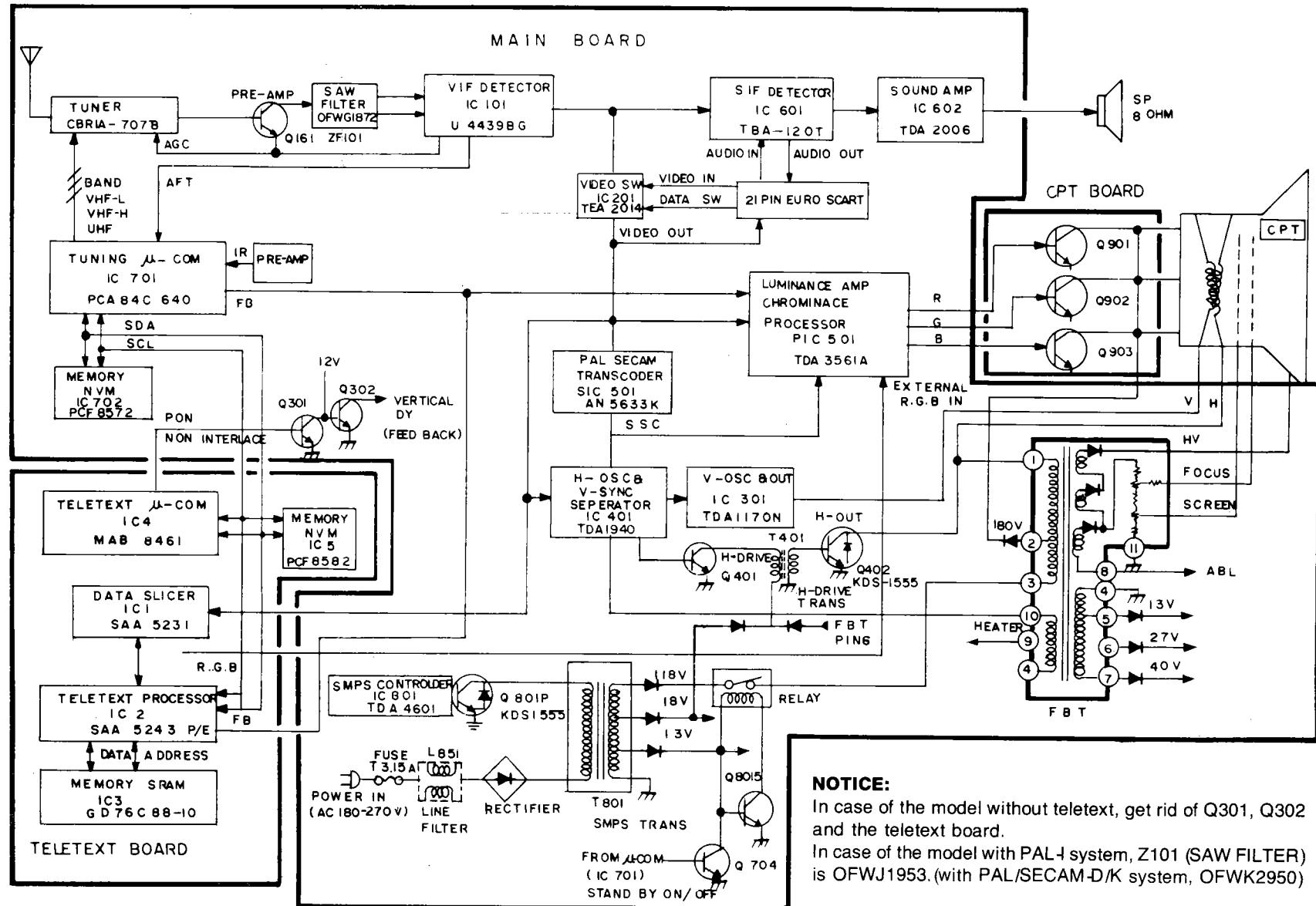
#6. NO VERTICAL SWEEP

Check the around IC301
soldering condition
check/Replace
IC301.

#7. NO TELETEXT



BLOCK DIAGRAM



COMPONENT LOCATION GUIDE

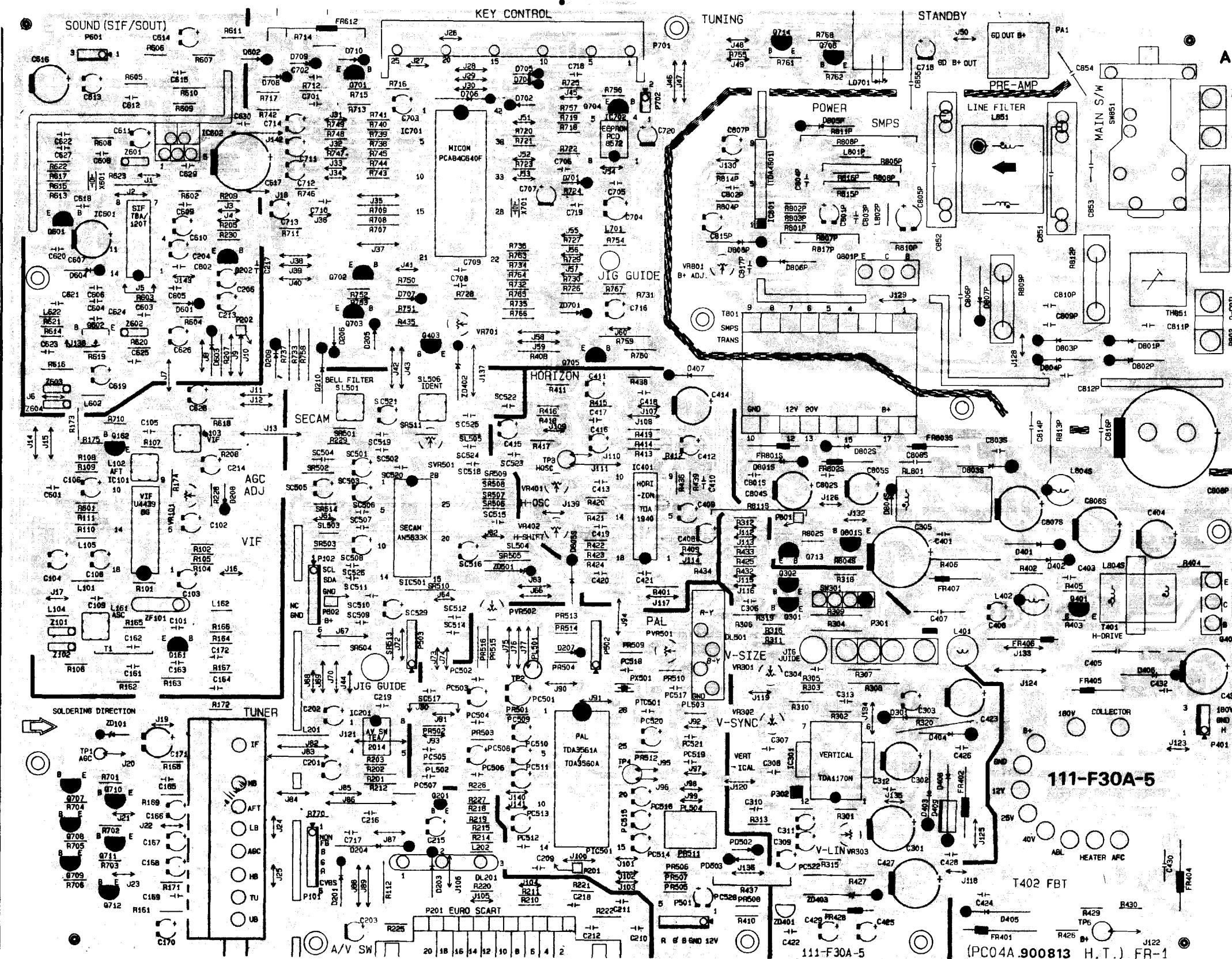
(Refer to page 31)

R101	2A	R319	2D	R702	1A	R761	5D	PR502	2B
R102	3A	R320	1D	R703	1A	R762	5D	PR503	2B
R104	2A	R401	2C	R704	1A	R763	4C	PR504	2C
R105	3A	R402	3E	R705	1A	R764	4C	PR505	1C
R106	2A	R403	2E	R706	1A	R765	4C	PR506	1C
R107	3A	R404	3E	R707	4B	R766	4C	PR507	1C
R108	3A	R405	2E	R708	4B	R767	4C	PR508	1D
R109	3A	R406	2D	R709	4B	R768	5D	PR509	2C
R110	3A	R408	4C	R710	3A	R769	4C	PR510	2C
R111	3A	R409	3C	R711	4B	R770	1B	PR511	1C
R112	1B	R410	1D	R712	5B	R771	4C	PR512	2C
R161	1A	R411	3C	R713	5B	R801S	3D	PVR501	2C
R162	2A	R412	3C	R714	5B	R802S	3D		
R163	2A	R413	3C	R715	5B	R804S	3D	C101	2A
R164	2A	R414	3C	R716	5B	R811S	3D	C102	3A
R165	2A	R415	3C	R717	5B	R801P	4D	C103	2A
R166	2A	R416	3C	R718	5C	R802P	4D	C104	2A
R167	2A	R417	3C	R719	5C	R803P	4D	C105	3A
R168	1A	R418	3C	R720	5C	R804P	4C	C106	3A
R169	1A	R419	3C	R721	5C	R805P	4D	C108	2A
R171	1A	R420	3C	R722	5C	R806P	5D	C109	2A
R172	2A	R421	3C	R723	5C	R807P	4D	C161	2A
R201	1B	R422	3C	R724	4C	R808P	5D	C162	2A
R202	1B	R423	3C	R725	5C	R809P	4E	C163	2A
R203	1B	R424	3C	R726	4C	R810P	4D	C164	2A
R205	4A	R425	3C	R727	4C	R811P	5D	C165	1A
R207	4A	R426	1E	R728	4B	R812P	4E	C166	1A
R208	3A	R427	1D	R729	4C	R813P	3E	C167	1A
R209	4A	R429	1E	R729	4C	R814P	5C	C168	1A
R210	1C	R430	1E	R730	4C	VR101	3A	C169	1A
R211	1C	R432	3C	R731	4C	VR301	2C	C170	1A
R212	1B	R433	3C	R732	4C	VR302	2C	C171	2A
R214	1B	R434	2C	R733	4B	VR303	1D	C201	1B
R215	1B	R435	4B	R734	4C	VR401	3C	C202	2B
R218	1B	R436	3C	R735	4C	VR701	4B	C203	2B
R219	1B	R437	1D	R736	4C	VR801	4C	C204	4A
R220	1B	R601	3A	R737	4B	FR401	1D	C206	4A
R221	1C	R602	4A	R738	5B	FR402	1D	C209	1C
R222	1C	R603	4A	R739	5B	FR403	1D	C210	1C
R225	1B	R604	4A	R740	5B	FR404	1E	C211	1C
R226	1B	R605	5A	R741	5B	FR405	2E	C212	1C
R227	1B	R606	5A	R742	5B	FR406	2E	C213	4A
R229	3B	R607	5A	R743	5B	FR407	2D	C214	3A
R301	1D	R608	5A	R744	5B	FR428	1D	C215	1B
R302	2D	R609	5A	R745	5B	FR801S	3D	C301	1D
R303	2D	R610	5A	R746	4B	FR802S	3D	C302	2D
R304	2D	R611	5A	R747	5B	FR803S	3D	C303	2D
R305	2D	R612	5B	R748	5B	SR501	3B	C304	2D
R306	2C	R613	4A	R749	5B	SR502	3B	C305	3D
R307	2D	R614	4A	R750	4B	SR503	3B	C306	2D
R308	2D	R615	5A	R751	4B	SR504	2B	C307	2D
R309	2D	R616	4A	R752	4B	SR505	2C	C308	2D
R310	2D	R617	5A	R753	4B	SR506	3B	C309	1D
R311	2D	R618	3A	R754	4C	SR507	3B	C310	1D
R312	3C	R619	3A	R755	5C	SR508	3B	C311	1D
R313	1D	R620	3A	R756	5C	SR509	3B	C401	3E
R314	1D	R621	4A	R757	5C	SR510	2B	C403	3E
R315	1D	R622	5A	R758	4B	SR513	2B	C404	3E
R316	2D	R623	5A	R759	4C	SVR501	3B	C405	2E
R318	2D	R701	1A	R760	4C	PR501	3C	C406	2D

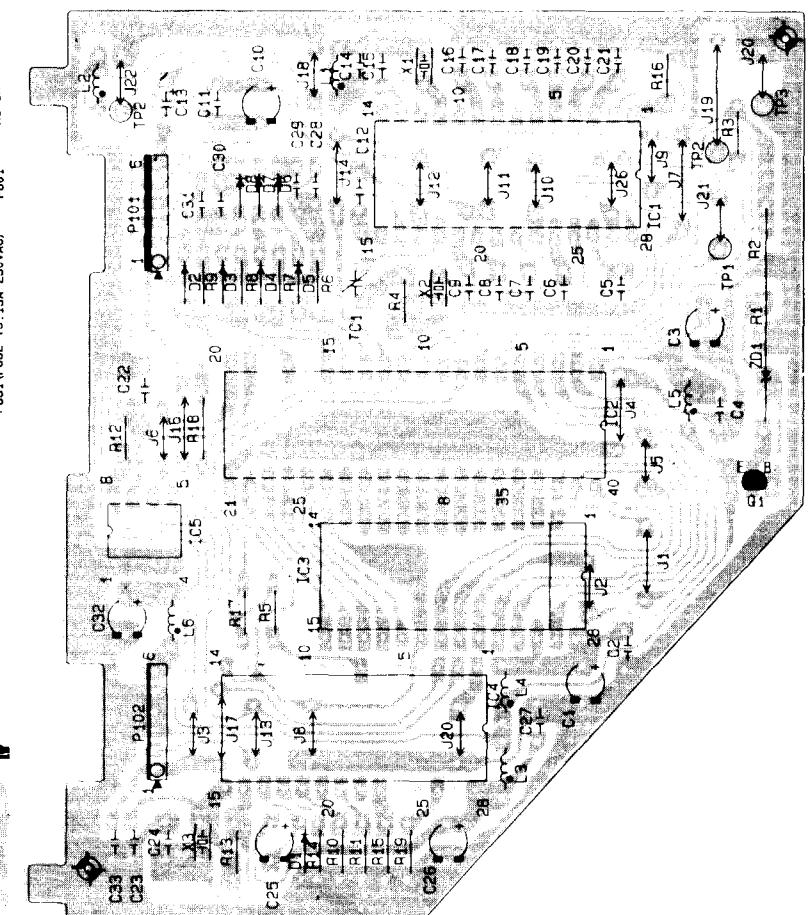
C407	.....	2D	C705	.....	4C	PC521	.....	2C	D805P	.....	5D	L102	.....	3A
C408	.....	3C	C706	.....	5C	PC522	.....	1D	D806P	.....	4D	L103	.....	3A
C409	.....	3C	C707	.....	4C	SC501	.....	3B	D807P	.....	4D	L104	.....	2A
C410	.....	3C	C708	.....	4B	SC502	.....	3B	D808P	.....	4C	L105	.....	3A
C411	.....	3C	C709	.....	4B	SC504	.....	3B	D801S	.....	3D	L161	.....	2A
C412	.....	3C	C710	.....	4B	SC505	.....	3B	D802S	.....	3D	L162	.....	2A
C413	.....	3C	C711	.....	5B	SC506	.....	3B	D803S	.....	3D	L201	.....	2B
C414	.....	3C	C712	.....	5B	SC507	.....	3B	D804S	.....	3D	L401	.....	2D
C415	.....	3C	C713	.....	4B	SC508	.....	3B	D805S	.....	2C	L402	.....	2E
C416	.....	3C	C714	.....	5B	SC509	.....	2B	SD501	.....	2C	L602	.....	3A
C417	.....	3C	C715	.....	5D	SC510	.....	2B	PD502	.....	1C	L622	.....	4A
C418	.....	3C	C716	.....	4C	SC511	.....	2B	PD503	.....	1D	L701	.....	4C
C419	.....	3C	C717	.....	1B	SC512	.....	2B	ZD401	.....	1D	L801P	.....	5D
C420	.....	2C	C801P	.....	4D	SC513	.....	2B	ZD701	.....	4C	L804S	.....	3E
C421	.....	2C	C802P	.....	4C	SC514	.....	2B	ZD702	.....	4C	L851	.....	5E
C422	.....	1D	C803P	.....	4D	SC515	.....	3B	LD701	.....	5D	PL501	.....	2C
C423	.....	2D	C804P	.....	4D	SC516	.....	3B				PL502	.....	1B
C424	.....	1E	C805P	.....	4D	SC517	.....	2B	T401	.....	2E	PL503	.....	2C
C425	.....	1D	C806P	.....	4D	SC518	.....	3B	T801	.....	4C	PL504	.....	1C
C426	.....	2D	C807P	.....	5C	SC519	.....	3B				SL501	.....	3B
C427	.....	1D	C808P	.....	3E	SC520	.....	3B	Q161	.....	2A	SL503	.....	3B
C428	.....	1D	C809P	.....	4E	SC521	.....	3B	Q201	.....	1B	SL504	.....	3C
C429	.....	1D	C810P	.....	4E	SC523	.....	3C	Q202	.....	4A	SL505	.....	3B
C430	.....	1E	C811P	.....	4E	SC524	.....	3B	Q301	.....	2D	SL506	.....	3B
C431	.....	2E	C812P	.....	3E	SC525	.....	3B	Q302	.....	2D	DL201	.....	1B
C432	.....	2E	C814P	.....	3E	SC526	.....	2B	Q402	.....	2E			
C522	.....	3C	C815P	.....	4C	PTC501	.....	2C	Q403	.....	4B	PA1	.....	5E
C528	.....	1C	C816P	.....	3E				Q601	.....	4A	P101	.....	1B
C601	.....	3A	C801S	.....	3D	D201	.....	1B	Q602	.....	4A	P102	.....	3B
C602	.....	4A	C802S	.....	3D	D203	.....	1B	Q701	.....	5B	P201	.....	1B
C603	.....	4A	C803S	.....	3D	D204	.....	1B	Q702	.....	4B	P301	.....	2D
C604	.....	4A	C804S	.....	3D	D205	.....	4B	Q703	.....	4B	P401	.....	2E
C605	.....	4A	C805S	.....	3D	D206	.....	4B	Q704	.....	5C	P501	.....	1C
C606	.....	4A	C806S	.....	3E	D207	.....	2C	Q705	.....	4C	P601	.....	5A
C607	.....	4A	C807S	.....	3E	D210	.....	3B	Q706	.....	5D	P701	.....	5C
C608	.....	5A	C851	.....	4E	D301	.....	2D	Q707	.....	1A	P702	.....	5C
C609	.....	4A	C852	.....	4D	D401	.....	3D	Q708	.....	1A	P801	.....	5E
C610	.....	4A	C853	.....	4E	D402	.....	2E	Q709	.....	1A	P802	.....	4E
C611	.....	5A	C854	.....	5E	D403	.....	1D	Q710	.....	1A	PX501	.....	2C
C612	.....	5A	C855	.....	5D	D404	.....	2D	Q711	.....	1A	X501	.....	5A
C613	.....	5A	PC501	.....	2C	D405	.....	1E	Q712	.....	1A	X701	.....	4C
C614	.....	5A	PC502	.....	2B	D406	.....	2E	Q713	.....	3D	F851	.....	4E
C615	.....	5A	PC503	.....	2B	D407	.....	4C	Q714	.....	5D	SW301	.....	2D
C616	.....	5A	PC504	.....	2B	D601	.....	4A	Q715	.....	4C	SW851	.....	5E
C617	.....	5A	PC505	.....	2B	D602	.....	5A	Q801S	.....	3D	Z101	.....	2A
C618	.....	4A	PC506	.....	1B	D603	.....	4A	Q801P	.....	4D	Z102	.....	2A
C619	.....	3A	PC507	.....	1B	D604	.....	4A				Z601	.....	5A
C620	.....	4A	PC508	.....	2B	D701	.....	5C	IC101	.....	3A	Z602	.....	4A
C621	.....	4A	PC509	.....	2C	D702	.....	5C	IC201	.....	2B	Z603	.....	3A
C622	.....	5A	PC510	.....	2C	D703	.....	5C	IC301	.....	2D	Z604	.....	3A
C623	.....	4A	PC511	.....	1C	D704	.....	5C	IC401	.....	3C	ZF101	.....	2A
C624	.....	4A	PC512	.....	1C	D705	.....	5C	IC601	.....	4A	TH851	.....	4E
C625	.....	4A	PC513	.....	1C	D706	.....	5B	IC602	.....	5A	RL801	.....	3D
C626	.....	4A	PC514	.....	1C	D707	.....	4B	IC701	.....	5B	TP1	.....	2A
C627	.....	5A	PC515	.....	1C	D708	.....	5B	IC702	.....	5C	TP2	.....	2C
C628	.....	3A	PC516	.....	1C	D709	.....	5B	IC801	.....	4D	TP3	.....	3C
C701	.....	5B	PC517	.....	2C	D801P	.....	4E	SIC501	.....	2B	TP4	.....	2C
C702	.....	5B	PC518	.....	2C	D802P	.....	4E	PIC501	.....	1C	TP5	.....	1C
C703	.....	5B	PC519	.....	2C	D803P	.....	4E				TP6	.....	1E
C704	.....	4C	PC520	.....	2C	D804P	.....	4E	L101	.....	2A			

PRINTED CIRCUIT BOARD

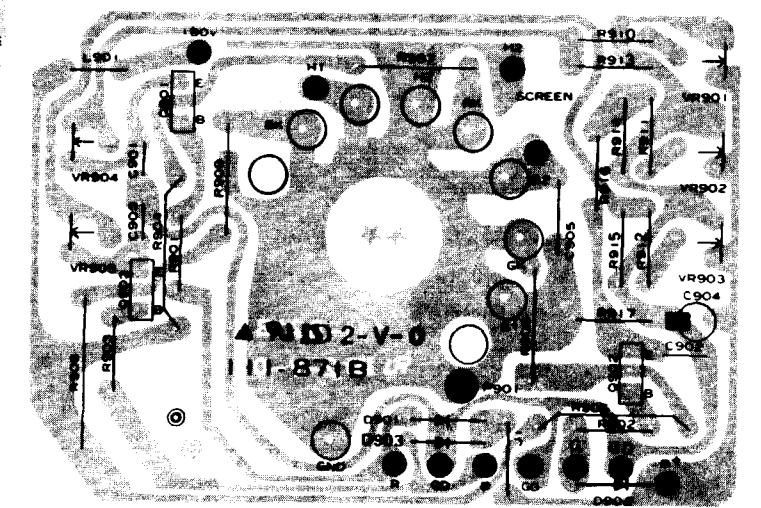
MAIN P.C.BOARD (COMPONENT SIDE)



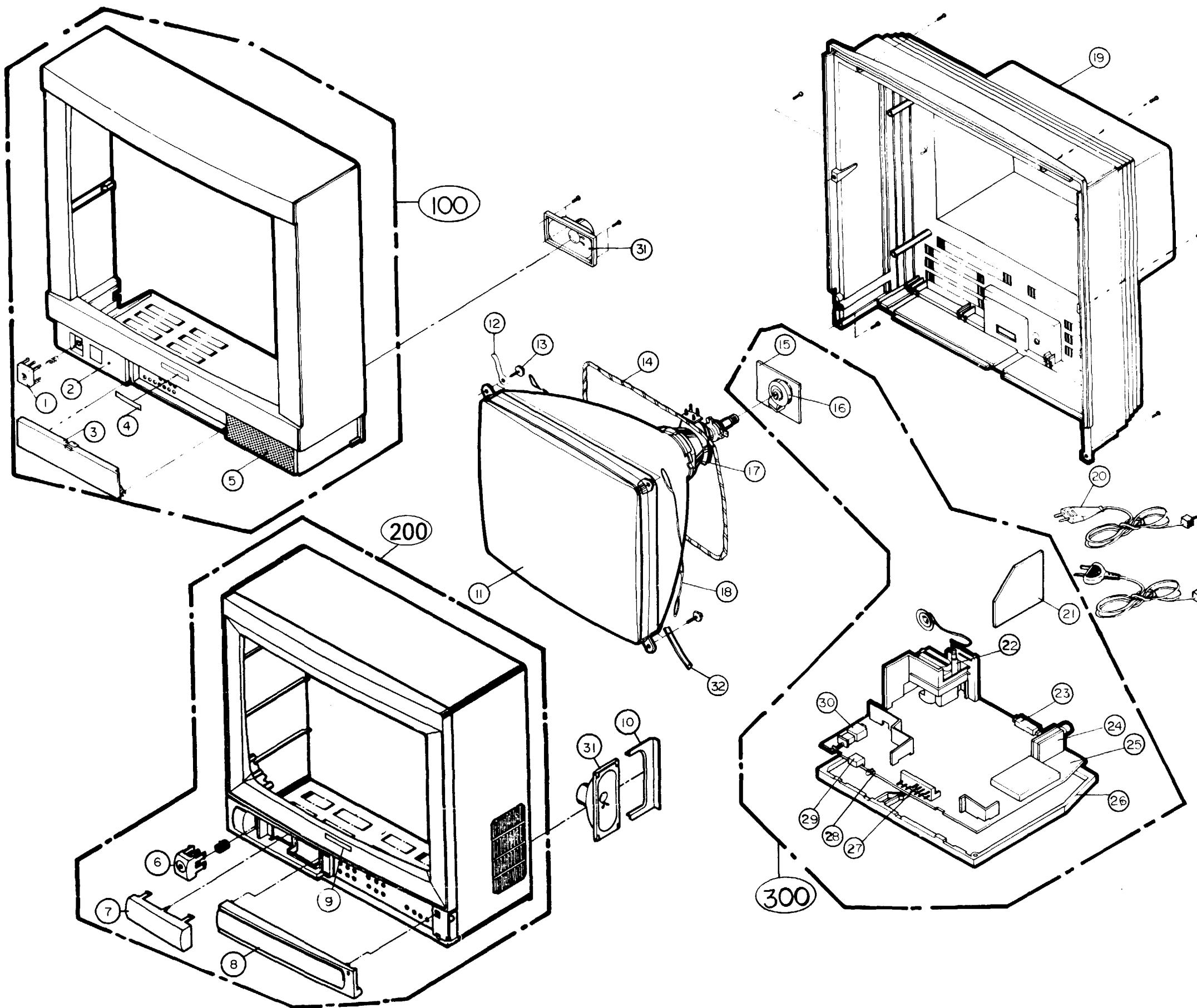
TXT P.C.BOARD (COMPONENT SIDE)



CPT P.C.BOARD (COMPONENT SIDE)



EXPLODED VIEW



SP: Serviceable Parts
NSP: Not Serviceable Parts

NO	DESCRIPTION	CT-M215	CT-M145
1	BUTTON,POWER	441-154B	x
2	WINDOW,LED DISPLAY	316-268E	x
3	DOOR,FRONT CONTROL	315-448D	x
4	MARK,BRAND	410-560R	x
5	GRILL,SPEAKER	314-193B	x
6	BUTTON,POWER	x	441-149B
7	WINDOW,LED DISPLAY	x	316-244H
8	DOOR,FRONT CONTROL	x	351-442G
9	MARK,BRAND	x	410-558R
10	SUPPORTER, SPEAKER	x	343-823B
11	COLOUR PICTURE TUBE(WITH DY)	2055-V6511B	2055-V0231J
12	HOLDER,METAL ASSY	341-335A	341-335A
13	SCREW,HEXAGON HEAD	332-235B	332-057B
14	COIL,DEGAUSSING	150-438J	150-276F
15	PRINTED CIRCUIT BOARD ASSEMBLY,CPT	110-N03B	110-A31P
16	SOCKET,CPT	381-094B	381-094B
17	DEFLECTION YOKE	153-110D	153-D61M
18	LEAD SET, EARTH	170-799D	170-799A
19	COVER, BACK	303-D79S	303-D73S
20	CORD,POWER	174-171D	174-171D
21	PRINTED CIRCUIT BOARD ASSEMBLY,TELETEXT	110-M79A	110-M79A
22	FLAYBACK TRANSFORMER	154-194B	154-064F
23	21PIN PERI-SOCKET	381-090A	381-090A
24	TUNER	113-105K	113-105K
25	PRINTED CIRCUIT BOARD,ASSEMBLY,MAIN	110-M77G	110-T43A
26	FRAME,MAIN CHASSIS ASSEMBLY	312-258A	312-258A
27	SWITCH,BLOCK	140-306A	140-306A
28	STAND-BY LAMP	ODD000000BA	ODD000000BA
29	PRE-AMP	106-042B	106-042B
30	SWITCH MAIN	140-278C	140-278C
31	SPEAKER	120-480A	120-C93C
32	HOLDER, LEAD WIRE	x	341-049H

SUB ASSY

100	CABINET ASSEMBLY	300-862P	x
200	CABINET ASSEMBLY	x	300-855T
300	CHASSIS ASSEMBLY, MAIN	309-829G	309-961A
400	REMOTE CONTROL ASSY	105-057R	105-057R

REPLACEMENT PARTS LIST

REPLACEMENT PARTS LIST				PAGE : 1		
S	AL	LOCA,NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		OCC3300K4701	CAPACITOR CERAMIC(TEMP COMP)	33P 50V J NPO S		
		OIPH301000A	IC, PHILIPS	SAA3010-280-TX IC		
		1TRG0302618	BRAZER HEAD TA SCREW + 1	D 3.0 L 10 MSWR3/FZY		
		1TTG0402818	TRUSS HEAD TAPPING SCREW + 1	D 4.0 L 12 MSWR3/FZY		
		1TTG0403118	TRUSS HEAD TAPPING SCREW + 1	D 4.0 L 16 MSWR3/FZY (T-22)(W/TXTL,PC04A,TEAC)		
105-057R		TRANSMITTER	PCB ASSY	MAIN 2190X.PAL ONLY, TXT,A/V TXT(PC04A,FAST)		
110-H76		PCB ASSY	CPT PC04A 21" CON BOARD	CPT PC04A 21" CON BOARD		
110-N79A		PCB ASSY	TUNER	CER1A-707B(ALPS),PAL B/G		
113-105K		SPEAKER	ASSY,CBT-2190	ASSY,CBT-2190		
120-C26F		SPEAKER	C112PX-716K14	C112PX-716K14		
132-204F		ANTENNA	ASSY,ROD3 SECT.,F/L 650,STS	ASSY,ROD3 SECT.,F/L 650,STS		
150-438J		COIL	DEBAUSSING,21"Q" SHORT LEAD	DEBAUSSING,21"Q" SHORT LEAD		
155-110D		DI	DOAN1#110D-21FSAA	DOAN1#110D-21FSAA		
166-015F		FILTER	CS845SEBL(LONG LEAD)	CS845SEBL(LONG LEAD)		
170-573E		LEAD SET	FASTER	FASTER	NSP	
170-799D		LEAD SET	ASSY,C.P. EARTH (21")	ASSY,C.P. EARTH (21")		
174-170A		CORD	POWER SAA 250mA 7.5AMP SWAIN	POWER SAA 250mA 7.5AMP SWAIN		
174-171D		CORD	ASSY,POWER (AUST.)	ASSY,POWER (AUST.)		
300-862P		CABINET ASSY	(PC04A,TEAC)	(PC04A,TEAC)		
303-C58A		COVER	BATTERY (T-22,3U)	BATTERY (T-22,3U)		
305-D79S		COVER	ASSY,BACK (TEAC)	ASSY,BACK (TEAC)		
305-002D		HOUSING	ZP AMP 17117-1 (10)	ZP AMP 17117-1 (10)		
309-B29G		CHASSIS ASSY	MAIN PC04A(2190X)	MAIN PC04A(2190X)		
312-258A		FRAME	MAIN CHASSIS (PC91A)	MAIN CHASSIS (PC91A)		
314-193B		GRILL	SPEAKER(CBT-2190,SGM186)	SPEAKER(CBT-2190,SGM186)		
315-448D		DOOR	ASSY,CONTROL(TEAC)	ASSY,CONTROL(TEAC)		
316-268E		WINDOW	ASSY,DISPLAY(TEAC)	ASSY,DISPLAY(TEAC)		
320-062B		SPRING	KNOB	KNOB		
332-235A		SCREW	HEXAGON HEAD/W(RUBBER)	HEXAGON HEAD/W(RUBBER)		
332-235B		SCREW	ASY HEXAGON HEAD/W/HOLDER21"	ASY HEXAGON HEAD/W/HOLDER21"		
334-102A		WASHER	PVC	PVC		
341-184D		HOLDER	LEAD TWISTER	LEAD TWISTER		
341-259E		HOLDER	POWER CORD	POWER CORD		
341-335A		HOLDER	METAL ASSY	METAL ASSY		
341-593A		HOLDER	LED	LED		
343-854D		SUPPORTER	PWB	PWB		
371-152A		PACKING	TOP(CBT-2190/2191)	TOP(CBT-2190/2191)		
371-153A		PACKING	BOTTOM(CBT-2190/2191)	BOTTOM(CBT-2190/2191)		
372-217A		BOX	INNER,CBT-2190 HPTRT	INNER,CBT-2190 HPTRT		
381-094B		CRT SOCKET	CPT HPC0360-01-020	CPT HPC0360-01-020		
387-459B		CONNECTOR	ASSY,SP (IL-G)	ASSY,SP (IL-G)		
387-467N		CONNECTOR	ASSY,3P (IL-G)	ASSY,3P (IL-G)		
407-045J		PLATE	CONT,DECOD(TEAC)	CONT,DECOD(TEAC)		
410-560R		MARK	BRAND (20",TEAC,Gold)	BRAND (20",TEAC,Gold)		
441-154B		BUTTON	POWER(CBT-2190,ABS-SG-175)	POWER(CBT-2190,ABS-SG-175)		
450-018C		ADAPTER	ANT.(300 TO 75) PAL	ANT.(300 TO 75) PAL		
482-E31F		INSTRUCTIONS(OWNER'S MANUAL)	CBT-2190X HPTRT(M215)	CBT-2190X HPTRT(M215)		
486-2230		CARD	AUSTRALIA TEAC (REGISTRATION)	AUSTRALIA TEAC (REGISTRATION)		

REPLACEMENT PARTS LIST				PAGE : 3		
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL(M215)	RUN-DATE : 91.11.26				
S	AL	LOCA,NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		C25	OCE1056K618	CAPACITOR, ELECTROLYTIC	1.0U SMS 50V M FMS TPS	
		C26	OCE1076F616	CAPACITOR, ELECTROLYTIC	100P SMS 16V M FMS TPS	
		C27	OCE1030K45	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C28	OCE1010K415	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C29	OCE1010K415	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C3	OCE1076F616	CAPACITOR, ELECTROLYTIC	100M SMS 16V M FMS TPS	
		C30	OCE1010K415	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C31	OCE1076F616	CAPACITOR	CE(MINI) 35V 1000UF	
		C32	OCE1076F616	CAPACITOR, ELECTROLYTIC	100M SMS 35V M FMS TPS	
		C33	OCE4756K618	CAPACITOR, ELECTROLYTIC	4.7U SMS 50V M FMS TPS	
		C34	OQ9331N509	CAPACITOR, POLYESTER(MYLAR)	0.033U 100V K POLY TP	
		C35	OCE4776H630	CAPACITOR, ELECTROLYTIC	470M SMS 250 M FMS	
		C36	OCE1041N509	CAPACITOR, POLYESTER(MYLAR)	0.1U 100V K POLY	TP
		C37	OCE1041N509	CAPACITOR, POLYESTER(MYLAR)	0.1U 100V K POLY	TP
		C38	OCE1041N509	CAPACITOR, POLYESTER(MYLAR)	0.1U 100V K POLY	TP
		C39	181-032Z	CAPACITOR	TANTAL 35V 0.22MF TAPING	
		C40	OCE1010K415	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C41	OQC2231N509	CAPACITOR, POLYESTER(MYLAR)	0.022U 100V K POLY TP	
		C42	181-032Z	CAPACITOR	TANTAL 35V 0.22MF TAPING	
		C43	OCE1031N509	CAPACITOR, POLYESTER(MYLAR)	0.01U 100V K POLY	TP
		C44	OCE1031N509	CAPACITOR, POLYESTER(MYLAR)	0.01U 100V K POLY	TP
		C45	OCE1031N509	CAPACITOR, POLYESTER(MYLAR)	0.01U 100V K POLY	TP
		C46	OCE4766F618	CAPACITOR, ELECTROLYTIC	47U SMS 16V M FMS TPS	
		C47	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C48	OCE4721N509	CAPACITOR, POLYESTER(MYLAR)	0.0047U 100V K POLY TP	
		C49	OCE1076J616	CAPACITOR, ELECTROLYTIC	100M SMS 35V M FMS TPS	
		C50	OCE1076J616	CAPACITOR	MPP 1.6K 862J	
		C51	OCE1076J616	CAPACITOR, ELECTROLYTIC	10M SMS 16V M FMS TPS	
		C52	OCE1076J616	CAPACITOR, ELECTROLYTIC	10M SMS 50V M FMS TPS	
		C53	OCE1086F630	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C54	OCE1046K618	CAPACITOR, ELECTROLYTIC	100M SMS 16V M FMS TPS	
		C55	OCE2231N509	CAPACITOR, POLYESTER(MYLAR)	0.022U 100V K POLY	TP
		C56	OCE4766F618	CAPACITOR, ELECTROLYTIC	47M SMS 16V M FMS TPS	
		C57	OCE2231N509	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C58	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01U 100V K POLY	TP
		C59	181-095A	CAPACITOR	PE 100V 0.01MFJ	
		C60	OCE1041N509	CAPACITOR, POLYESTER(MYLAR)	0.1U 100V K POLY	TP
		C61	OCE1076J616	CAPACITOR, ELECTROLYTIC	10M SMS 16V M FMS TPS	
		C62	OCE1066K618	CAPACITOR, ELECTROLYTIC	10M SMS 50V M FMS TPS	
		C63	OCE1010K415	CAPACITOR, CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C64	OCE1046K618	CAPACITOR, ELECTROLYTIC	100M SMS 16V M FMS TPS	
		C65	OCE2231N509	CAPACITOR, POLYESTER(MYLAR)	0.022U 100V K POLY	TP
		C66	OCE4766F618	CAPACITOR, ELECTROLYTIC	47M SMS 16V M FMS TPS	
		C67	OCE2231N509	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C68	OCE1030K945	CAPACITOR, POLYESTER(MYLAR)	0.01U 100V K POLY	TP
		C69	OCE2231N509	CAPACITOR, POLYESTER(MYLAR)	0.01U 100V K POLY	TP
		C70	OCE2231N509	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C71	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01U 100V K POLY	TP
		C72	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01U 100V K POLY	TP
		C73	OCE2271K405	CAPACITOR, CERAMIC(TEMP COMP)	270P 50V J SL TP	
		C74	OCE1086F630	CAPACITOR, ELECTROLYTIC	1000M SMS 16V M FMS	
		C75	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C76	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C77	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C78	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C79	OCE1030K945	CAPACITOR, CERAMIC(HIGH DIELE)	0.01M 50V Z F TS	
		C80	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C81	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C82	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C83	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C84	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C85	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C86	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C87	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C88	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C89	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C90	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C91	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C92	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C93	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C94	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C95	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C96	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C97	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C98	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C99	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C100	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C101	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C102	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C103	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C104	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C105	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C106	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C107	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C108	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C109	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C110	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C111	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C112	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C113	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C114	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C115	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C116	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C117	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C118	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C119	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C120	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C121	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C122	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C123	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C124	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C125	OCE4776F618	CAPACITOR, ELECTROLYTIC	470U SMS 16V M FMS TPS	
		C126	OCE4776F61			

REPLACEMENT PARTS LIST				PAGE : 5		
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL (CT-M215)	RUN-DATE : 91.11.26				
S.	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
C719		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01H 50V Z F TS		
C720		OCE1056K415	CAPACITOR,ELECTROLYTIC	1.0U SMS 50V M FMS TP5		
C8		OCC1800K415	CAPACITOR,CERAMIC(TEMP COMP)	1RF 50V J NPO TP		
C801P		OCE1064F418	CAPACITOR,ELECTROLYTIC	10M SMS 16V M FMS TP(S)		
C801S		OCK2710W515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS		
C802P		OCL1500K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NPO TP		
C802S		OCK2710W515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS		
C803P		OCE6621N515	CAPACITOR, POLYESTER(MYLAR)	0.0068U 100V K POLY NI TP		
C803S		OCK2710W515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS		
C804P		181-0574	CAPACITOR	PE 100V 0.0082MFJ		
C804S		OCE1084F630	CAPACITOR,ELECTROLYTIC	1000M SMS 16V M FMS		
C805P		OCE1076F618	CAPACITOR,ELECTROLYTIC	100M SMS 16V M FMS TP(S)		
C806P		OCE1076H618	CAPACITOR,ELECTROLYTIC	100M SMS 250V M FMS TP(S)		
C807P		OCE1066K618	CAPACITOR,ELECTROLYTIC	MPP 2KV 222J		
C807S		OCE3361P630	CAPACITOR,ELECTROLYTIC	47M 160V M FMS 7.5		
C808P		181-1244	CAPACITOR	33M SMS 160V M FMS		
C808S		181-434L	CAPACITOR	CE (400V/120UF)		
C809P		OCK1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	100P 500V K B TS		
C810P		OCK1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000P 500V K B TS		
C811P		OCK1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000P 500V K B TS		
C812P		OCK1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000P 500V K B TS		
C814P		181-157A	CAPACITOR	ECK-DNS 222 MAX		
C815P		OCE1056K418	CAPACITOR,ELECTROLYTIC	1.0U SMS 50V M FMS TP5		
C816P		181-4104	CAPACITOR	ECK-DNS472MAX		
C817P		OCC2710K405	CAPACITOR,CERAMIC(TEMP COMP)	270P 50V J SL TP		
C851		181-408C	CAPACITOR	250V 0.47UF(LISKR)		
C852		181-408C	CAPACITOR	250V 0.47UF(LISKR)		
C853		181-093K	CAPACITOR	0E 70908 102KVU MMIC4-14		
C9		OCE4731N409	CAPACITOR, POLYESTER(MYLAR)	0.047U 100V J POLY TP		
C901		OCC3010K400	CAPACITOR,CERAMIC(TEMP COMP)	300P 50V J SL S		
C902		OCE2710K400	CAPACITOR,CERAMIC(TEMP COMP)	270P 50V J SL S		
C903		OCE2710K400	CAPACITOR,CERAMIC(TEMP COMP)	270P 50V J SL S		
C904		OCE4766F18	CAPACITOR,ELECTROLYTIC	47U SMS 16V M FMS TP5		
C905		OCE12202510	CAPACITOR,CERAMIC(HIGH DIELE)	1200P 2KV K B S		
Q1201		150-377G	COIL	DELAY LINE(350N)		
Q1201		175-013K	DELAY LINE	1H SD-11 PID		
D1		ODD414809ED	DIODE	ODS4148 TA		
D102		ODD414809ED	DIODE	ODS4148 TA		
D2		ODD414809ED	DIODE	ODS4148 TA		
D201		ODD414809ED	DIODE	ODS4148 TA		
D204		ODD414809ED	DIODE	ODS4148 TA		
D205		ODD414809ED	DIODE	ODS4148 TA		
D206		ODD414809ED	DIODE	ODS4148 TA		
D207		ODD414809ED	DIODE	ODS4148 TA		
D208		ODD414809ED	DIODE	ODS4148 TA		
D3		ODD414809ED	DIODE	ODS4148 TA		
D301		ODD400309BA	DIODE	IN4003TA		
D4		ODD414809ED	DIODE	(ODS4148) TA		

REPLACEMENT PARTS LIST				PAGE : 7		
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL (CT-M215)	RUN-DATE : 91.11.26				
S.	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
JCI		OIPW523100A	IC, PHILIPS	SAA 5231		
IC101		OITF443900E	IC, TELEFUNKEN	TDA4439(TFK)		
IC2		OIPH524300E	IC, PHILIPS	SAA5243P/E 2801P LIN TXT CHAR		
IC2		381-058C	SOCKET	IC 40PIN 3466-40		
IC201		OIGS382000E	IC, GOLDSTAR ELECTRON	GL3820(A/V SWITCHING)		
IC3		OIGS768815A	IC, GOLDSTAR ELECTRON	GM76CRBL-15 64K SRAM 150NS.GS		
IC301		OITF117010A	IC, TELEFUNKEN	TDA1170N-A1(TFK)		
IC4		OIPH864117A	IC, PHILIPS	MA88461P/M172(SAFARI)		
IC401		OITF194000A	IC, TELEFUNKEN	IC SOCKET WSDIF-28 (WOOYOUNG)		
IC5		OIX12402000B	IC, XICOR	X24C02P.BD-EEPROM(2K.CMOS)		
IC601		OITF120000A	IC, TELEFUNKEN	TBA1201-A (TFK)		
IC602		OISG200600A	IC, SGS-THOMSON	TDA2006.SOUND		
IC701		OIPH846400A	IC, PHILIPS	PC8 84640		
IC702		OIX1240200B	IC, XICOR	X24C02P.BD-EEPROM(2K.CMOS)		
IC801		OISM460100A	IC, SIEMENS	TDA4601		
L0701		000000008A	DIODE	LAMP(DIFFUSION TYPE)		
L1		OLA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.343.4 TP		
L101		OLA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.343.4 TP		
L102		150-813M	COIL	IFT77M938.9MHZ,68PF		
L103		OLA0152K119	INDUCTOR AXIAL LEAD	IFT77M938.9MHZ,33PF		
L104		150-813M	COIL	10UH K 2.343.4 TP		
L105		OLA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.343.4 TP		
L106		150-1470	COIL	CHOKE 1.0 UH		
L107		OLA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.343.4 TP		
L108		150-1091	COIL	PL 6800 UH		
L109		150-224C	COIL	LINEARITY		
L602		OLA0821K119	INDUCTOR AXIAL LEAD	8.2UH K 2.343.4 TP		
L701		OLA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.343.4 TP		
L801P		OLA0221K119	INDUCTOR AXIAL LEAD	2.2UH K 2.343.4 TP		
L802P		OIA0470K119	INDUCTOR AXIAL LEAD	0.47UH K 2.343.4 TP		
L804S		150-235E	COIL	HOR. CHOKE 1MH(1A)		
L851		150-839A	COIL	LINE FILTER 39MH		
PA1		166-042C	PRE-AMP	VS.RC-37W		
PC501		OCE1076F618	CAPACITOR,ELECTROLYTIC	100M SMS 16V M FMS TP(S)		
PC502		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01H 50V Z F TS		
PC503		OCE4746K418	CAPACITOR,ELECTROLYTIC	0.47U SMS 50V M FMS TPS		
PC504		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01H 50V Z F TS		
PC505		OCE3300K415	CAPACITOR,CERAMIC(TEMP COMP)	33P 50V J NPO TP		
PC506		OCE8200K415	CAPACITOR,CERAMIC(TEMP COMP)	82P 50V J NPO TP		
PC507		OCE1210K418	CAPACITOR,CERAMIC(TEMP COMP)	120P 50V J NPO TP		
PC508		OCE4746K418	CAPACITOR,ELECTROLYTIC	0.47U SMS 50V M FMS TPS		
PC509		OCE2254K418	CAPACITOR,ELECTROLYTIC	2.2U SMS 50V M FMS TPS		
PC510		OCE4746K418	CAPACITOR,ELECTROLYTIC	0.47U SMS 50V M FMS TPS		
PC511		OCE4746K418	CAPACITOR,ELECTROLYTIC	47U SMS 16V M FMS TPS		
PC512		OQ1041N509	CAPACITOR, POLYESTER(MYLAR)	0.1U 100V X POLY TPS		
PC513		OCE4754K418	CAPACITOR,ELECTROLYTIC	4.7U SMS 50V M FMS TPS		
PC514		OCE1054K418	CAPACITOR,ELECTROLYTIC	1.0U SMS 50V M FMS TPS		
PC515		OCE1056K418	CAPACITOR,ELECTROLYTIC	1.0U SMS 50V M FMS TPS		
PC516		OCE1056K418	CAPACITOR,ELECTROLYTIC	1.0U SMS 50V M FMS TPS		

REPLACEMENT PARTS LIST				PAGE : 6		
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL (CT-M215)	RUN-DATE : 91.11.26				
S.	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
D401		ODD40309BA	DIODE	IN4003TA		
D402		ODD40309BA	DIODE	IN4003TA		
D403		ODD15009C	DIODE	RGP15J.TP52MM-.6I		
D404		ODD10009BA	DIODE	R10J SYMBOL IP		
D405		ODD10009BA	DIODE	R10J SYMBOL TP		
D406		ODD10009BA	DIODE	RU-1A V		
D407		ODD10009BA	DIODE	R10J SYMBOL TP		
D408		ODD15009C	DIODE	RGP15J.TP52MM-.6I		
D6		ODD414809ED	DIODE	ODS4148 TA		
D601		ODD414809ED	DIODE	ODS4148 TA		
D602		ODD414809ED	DIODE	ODS4148 TA		
D603		ODD414809ED	DIODE	ODS4148 TA		
D604		ODD414809ED	DIODE	ODS4148 TA		
D7		ODD414809ED	DIODE	ODS4148 TA		
D702		ODD414809ED	DIODE	ODS4148 TA		
D704		ODD414809ED	DIODE	ODS4148 TA		
D705		ODD414809ED	DIODE	ODS4148 TA		
D706		ODD414809ED	DIODE	ODS4148 TA		
D707		ODD414809ED	DIODE	ODS4148 TA		
D708		ODD414809ED	DIODE	ODS4148 TA		
D709		ODD414809ED	DIODE	ODS4148 TA		
D801P		ODD40509BA	DIODE	IN4005 GP TA		
D801S		ODD10009BA	DIODE	R10J SYMBOL TP		
D802P		ODD10009BA	DIODE	1N4005 GP TA		
D802S		ODD10009BA	DIODE	R10J SYMBOL TP		
D803P		ODD10009BA	DIODE	1N4005 GP TA		
D804P		ODD40509BA	DIODE	GUSC		
D805P		ODD10009BA	DIODE	IN4005 GP TA		
D806P		ODD10009BA	DIODE	R10J SYMBOL TP		
D807P		ODD10009BA	DIODE	1N4005 GP TA		
D808P		ODD10009BA	DIODE	R10J SYMBOL TP		
D901		ODD414809ED	DIODE	ODS4148 TA		
D902		ODD414809ED	DIODE	ODS4148 TA		
D903		ODD414809ED	DIODE	ODS4148 TA		
FR401		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR402		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR404		180-3056	RESISTOR	FUSING IW 1.5 OHM		
FR405		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR406		ODS12011665	RESISTOR, FIX METAL FILM OXIDE	1.2W 1W 5 SF20		
FR407		ODR1000J665	RESISTOR, FIX METAL FILM OXIDE	100 1W 5 SF20		
FR428		ODF5606H600	RESISTOR,FUSIBLE	560 1/2W 5 A		
FR612		ODF0541665	RESISTOR,FUSIBLE	5.6 1W 5 SF20		
FR801		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR802		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR803		ODF04704765	RESISTOR,FUSIBLE	0.47 1W 10 SF20		
FR828		ODF5606H600	RESISTOR,FUSIBLE	560 1/2W 5 A		
FR829		ODF0541665	RESISTOR,FUSIBLE	5.6 1W 5 SF20		
FR830		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR831		ODF0101H600	RESISTOR,FUSIBLE	1.0 1/2W 5 A		
FR832		ODT3151B1513	FUSE TIME LAB	3.15A 250V 5.2X20		

REPLACEMENT PARTS LIST				PAGE : 8		
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL (CT-M215)	RUN-DATE : 91.11.26				
S.	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS

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REPLACEMENT PARTS LIST				PAGE : 9	
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL(CT-M215)		RUN-DATE : 91.11.26		
S AL	LOCA,NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	Q705	0TR319809A4	TRANSISTOR	KTC3198-TP-Y (KTC1815) KEC	
	Q706	0TR319809A4	TRANSISTOR	KTC3198-TP-Y (KTC1815) KEC	
	Q707	0TR319809A4	TRANSISTOR	KTC3198-0.TPK(KTC1815).KEC	
	Q708	0TR319809A4	TRANSISTOR	KTC3198-0.TPK(KTC1815).KEC	
	Q709	0TR319809A4	TRANSISTOR	KTC3198-0.TPK(KTC1815).KEC	
	Q710	0TR126609A6	TRANSISTOR	KTA1266-0.TPK(KTA1015).KEC	
	Q711	0TR126609A6	TRANSISTOR	KTA1266-0.TPK(KTA1015).KEC	
	Q712	0TR126609A6	TRANSISTOR	KTA1266-0.TPK(KTA1015).KEC	
	Q713	0TR320209A4	TRANSISTOR	KTC3202-TP-Y (KTC1959) KEC	
	Q714	0TR126609A4	TRANSISTOR	KTA1266-TP-Y (KTA1015) KEC	
	Q801P	0TR155500A4	TRANSISTOR	K10 1555	
	Q801S	0TR320209A4	TRANSISTOR	KTC3202-TP-Y (KTC1959) KEC	
	Q901	0TR206800B4	TRANSISTOR	KTC2068.KEC	
	Q902	0TR206800B4	TRANSISTOR	KTC2068.KEC	
	Q903	0TR206800B4	TRANSISTOR	KTC2068.KEC	
	RD710	00041489E0	DIODE	(DS4148) TA	
	RL801	141-018A	RELAY	DG1201-0M	
R1	ORS0182L6A7		RESISTOR,FIX METAL FILM OXIDE	18 3W 5 SF30	
R10	0RD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W 5 TA52	
R102	0RD1000F609		RESISTOR,FIXED CARBON FILM	100 1/6W 5 TA52	
R104	0RD501F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
R105	0RD3301F609		RESISTOR,FIXED CARBON FILM	3.3K 1/6W 5 TA52	
R106	0RD7500F609		RESISTOR,FIXED CARBON FILM	750 1/6W 5 TA52	
R107	0RD1001F609		RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52	
R108	0RD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W 5 TA52	
R109	0RD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W 5 TA52	
R110	0RD2200F609		RESISTOR,FIXED CARBON FILM	220 1/6W 5 TA52	
R111	0RD2701F609		RESISTOR,FIXED CARBON FILM	2.7K 1/6W 5 TA52	
R112	0RD752F609		RESISTOR,FIXED CARBON FILM	75 1/6W 5 TA	
R13	0RD1004F609		RESISTOR,FIXED CARBON FILM	1.0M 1/6W 5 TA52	
R14	0RD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W 5 TA52	
R15	0RD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W 5 TA52	
R16	0RD1201F609		RESISTOR,FIXED CARBON FILM	1.2K 1/6W 5 TA52	
R161	0RD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
R162	0RD182F609		RESISTOR,FIXED CARBON FILM	18 3W 5 TA52	
R163	0RD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W 5 TA52	
R164	0RD4800F609		RESISTOR,FIXED CARBON FILM	680 1/6W 5 TA52	
R165	0RD182F609		RESISTOR,FIXED CARBON FILM	18 1/6W 5 TA52	
R166	0RD4700F609		RESISTOR,FIXED CARBON FILM	470 1/6W 5 TA52	
R167	0RD2200F609		RESISTOR,FIXED CARBON FILM	220 1/6W 5 TA52	
R168	0RD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W 5 TA52	
R169	0RD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W 5 TA52	
R17	0RD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
R171	0RD5601F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
R173	0RD4704F609		RESISTOR,FIXED CARBON FILM	4.7M 1/6W 5 TA52	
R175	0RD4704F609		RESISTOR,FIXED CARBON FILM	4.7M 1/6W 5 TA52	
R18	0RD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W 5 TA52	
R19	0RD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W 5 TA52	
R2	0RD12006F609		RESISTOR,FIXED CARBON FILM	820 1/4W 5 TA52	
R20	0RD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W 5 TA52	

REPLACEMENT PARTS LIST				PAGE : 11	
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL(CT-M215)		RUN-DATE : 91.11.26		
S AL	LOCA,NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	R409	0RD2203F609	RESISTOR,FIXED CARBON FILM	220K 1/6W 5 TA52	
	R410	0RD3301F609	RESISTOR,FIXED CARBON FILM	3.3K 1/6W 5 TA52	
	R411	0RD1502F609	RESISTOR,FIXED CARBON FILM	15K 1/6W 5 TA52	
	R412	0RD1801F609	RESISTOR,FIXED CARBON FILM	1.8K 1/6W 5 TA52	
	R413	0RD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/6W 5 TA52	
	R414	0RD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/6W 5 TA52	
	R415	0RD1000F609	RESISTOR,FIXED CARBON FILM	100 1/6W 5 TA52	
	R416	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52	
	R419	0RD3901F609	RESISTOR,FIXED CARBON FILM	3.9K 1/6W 5 TA52	
	R420	0RD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/6W 5 TA52	
	R421	0RD9102F609	RESISTOR,FIXED CARBON FILM	91K 1/6W 5 TA52	
	R422	0RD1202F609	RESISTOR,FIX METAL FILM	12K 1/6W 5 TA52	
	R423	0RD8202F609	RESISTOR,FIXED CARBON FILM	82K 1/6W 5 TA52	
	R424	0RD1504F609	RESISTOR,FIXED CARBON FILM	1.5M 1/6W 5 TA52	
	R425	0RD3302F609	RESISTOR,FIXED CARBON FILM	33K 1/6W 5 TA52	
	R426	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52	
	R427	0RD1515J609	RESISTOR FIX METAL FILM	1.5W 5 SF20	
	R429	0RD7502F609	RESISTOR,FIXED CARBON FILM	75K 1/6W 5 TA52	
	R430	0RD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/6W 5 TA52	
	R432	0RD6801F609	RESISTOR,FIXED CARBON FILM	6.8K 1/6W 5 TA52	
	R433	0RD1202F609	RESISTOR,FIXED CARBON FILM	12K 1/6W 5 TA52	
	R434	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R435	0RD8202F609	RESISTOR,FIXED CARBON FILM	82K 1/6W 5 TA52	
	R436	0RD1501F609	RESISTOR,FIXED CARBON FILM	1.5K 1/6W 5 TA52	
	R437	0RD0151J609	RESISTOR FIX METAL FILM	1.5W 5 SF20	
	R438	0RD8202F609	RESISTOR,FIXED CARBON FILM	82K 1/6W 5 TA52	
	R5	0RD2202F609	RESISTOR,FIXED CARBON FILM	22K 1/6W 5 TA52	
	R6	0RD4700F609	RESISTOR,FIXED CARBON FILM	470 1/6W 5 TA52	
	R601	0RD0102F609	RESISTOR,FIXED CARBON FILM	10 1/6W 5 TA52	
	R602	0RD7501F609	RESISTOR,FIXED CARBON FILM	7.5K 1/6W 5 TA52	
	R603	0RD6800F609	RESISTOR,FIXED CARBON FILM	680 1/6W 5 TA52	
	R604	0RD3902F609	RESISTOR,FIXED CARBON FILM	39K 1/6W 5 TA52	
	R605	0RD8201F609	RESISTOR,FIXED CARBON FILM	8.2K 1/6W 5 TA52	
	R606	0RD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/6W 5 TA52	
	R607	0RD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/6W 5 TA52	
	R608	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52	
	R609	0RD5602F609	RESISTOR,FIXED CARBON FILM	56K 1/6W 5 TA52	
	R610	0RD101F609	RESISTOR,FIXED CARBON FILM	1.0 1/6W 5 TA52	
	R611	0RD1103F609	RESISTOR,FIXED CARBON FILM	110K 1/6W 5 TA52	
	R618	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R623	0RD1501J609	RESISTOR,FIXED CARBON FILM	1.5K 1/6W 5 TA52	
	R7	0RD4700F609	RESISTOR,FIXED CARBON FILM	470 1/6W 5 TA52	
	R701	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R702	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R703	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R704	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R705	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R706	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R707	0RD3302F609	RESISTOR,FIXED CARBON FILM	33K 1/6W 5 TA52	
	R708	0RD3302F609	RESISTOR,FIXED CARBON FILM	33K 1/6W 5 TA52	

REPLACEMENT PARTS LIST				PAGE : 10	
MODEL : CBT-2190X HPTRT	BUYER NAME : TEAC-ATL(CT-M215)		RUN-DATE : 91.11.26		
S AL	LOCA,NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	R201	0RD1201F609	RESISTOR,FIXED CARBON FILM	1.2K 1/6W 5 TA52	
	R202	0RD4701F609	RESISTOR,FIXED CARBON FILM	4.7K 1/6W 5 TA52	
	R203	0RD200F609	RESISTOR,FIXED CARBON FILM	120 1/6W 5 TA52	
	R205	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R207	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R209	0RD202F609	RESISTOR,FIXED CARBON FILM	22K 1/6W 5 TA52	
	R21	0RD2200F609	RESISTOR,FIXED CARBON FILM	220 1/6W 5 TA52	
	R210	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R211	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R212	0RD1501F609	RESISTOR,FIXED CARBON FILM	1.5K 1/6W 5 TA52	
	R214	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52	
	R215	0RD100F609	RESISTOR,FIXED CARBON FILM	510 1/6W 5 TA52	
	R218	0RD3300F609	RESISTOR,FIXED CARBON FILM	330 1/6W 5 TA52	
	R219	0RD4701F609	RESISTOR,FIXED CARBON FILM	4.7K 1/6W 5 TA52	
	R220	0RD1800F609	RESISTOR,FIXED CARBON FILM	180 1/6W 5 TA52	
	R221	0RD1800F609	RESISTOR,FIXED CARBON FILM	180 1/6W 5 TA52	
	R222	0RD1800F609	RESISTOR,FIXED CARBON FILM	180 1/6W 5 TA52	
	R225	0RD0752F609	RESISTOR,FIXED CARBON FILM	75 1/6W 5 TA	
	R226	0RD2202F609	RESISTOR,FIXED CARBON FILM	22K 1/6W 5 TA52	
	R227	0RD2003F609	RESISTOR,FIXED CARBON FILM	200K 1/6W 5 TA52	
	R228	0RD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/6W 5 TA52	
	R23	0RD3301F609	RESISTOR,FIXED CARBON FILM	3.3K 1/6W 5 TA52	
	R230	0RD1502F609	RESISTOR,FIXED CARBON FILM	15K 1/6W 5 TA52	
	R3	0RD5602F609	RESISTOR,FIXED CARBON FILM	56K 1/6W 5 TA52	
	R301	0RD4702F609	RESISTOR FIX METAL FILM	47K 1/6W 5 TA52	
	R302	0RD5602F609	RESISTOR,FIXED CARBON FILM	56K 1/6W 5 TA52	
	R303	0RD1502F609	RESISTOR,FIXED CARBON FILM	15K 1/6W 5 TA52	
	R304	0RD4700H609	RESISTOR,FIXED CARBON FILM	470 1/2W 5 TA52	
	R305	0RD8201F609	RESISTOR FIX METAL FILM	8.2K 1/6W 5 TA52	
	R306	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R307	0RD1501609	RESISTOR,FIXED CARBON FILM	1.5K 1/4W 5 TA52	
	R308	0RD121H609	RESISTOR FIX METAL FILM	1.2 1/2W 5 TA52	
	R309	0RD1201H609	RESISTOR,FIXED CARBON FILM	1.2K 1/2W 5 TA52	
	R310	0RD243F609	RESISTOR,FIXED CARBON FILM	240K 1/6W 5 TA52	
	R311	0RD6202F609	RESISTOR,FIXED CARBON FILM	62K 1/6W 5 TA52	
	R312	0RD8200F609	RESISTOR,FIXED CARBON FILM	820 1/6W 5 TA52	
	R313	0RD2203F609	RESISTOR,FIXED CARBON FILM	220K 1/6W 5 TA52	
	R314	0RD8803F609	RESISTOR,FIXED CARBON FILM	880K 1/6W 5 TA52	
	R315	0RD3902F609	RESISTOR,FIXED CARBON FILM	39K 1/6W 5 TA52	
	R316	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/6W 5 TA52	
	R318	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52	
	R319	0RD2202F609	RESISTOR,FIXED CARBON FILM	22K 1/6W 5 TA52	
	R320	0RD1002J605	RESISTOR,FIX METAL FILM OXIDE	10	

REPLACEMENT PARTS LIST					
PAGE : 13					
MODEL : CBT-2190X HPTRT		BUYER NAME : TEAC-ATL(CT-M215)			
RUN-DATE : 91.11.26					
S	AL	LOCA,NO	PART NO(GS) DESCRIPTION	SPECIFICATION	REMARKS
	R761	ORD27016609	RESISTOR,FIXED CARBON FILM	2.7K 1/4W 5	TA52
	R762	ORD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/4W 5	TA52
	R763	ORD4800F609	RESISTOR,FIXED CARBON FILM	680 1/4W 5	TA52
	R764	ORD4800F609	RESISTOR,FIXED CARBON FILM	680 1/4W 5	TA52
	R765	ORD4800F609	RESISTOR,FIXED CARBON FILM	680 1/4W 5	TA52
	R766	ORD3300F609	RESISTOR,FIXED CARBON FILM	330 1/4W 5	TA52
	R767	ORD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/4W 5	TA52
	R768	ORD22006609	RESISTOR,FIXED CARBON FILM	220 1/4W 5	TA52
	R770	ORD8200F609	RESISTOR,FIXED CARBON FILM	820 1/4W 5	TA52
	R772	ORD2201F609	RESISTOR,FIXED CARBON FILM	2.2K 1/4W 5	TA52
	R775	ODD414809E9	DIODE	(DS4148) TA	
	R8	ORD4700F609	RESISTOR,FIXED CARBON FILM	470 1/4W 5	TA52
	R801P	ORD2200F609	RESISTOR,FIXED CARBON FILM	220 1/4W 5	TA52
	R802P	ORD1201F609	RESISTOR,FIXED CARBON FILM	1.2K 1/4W 5	TA52
	R802S	ORD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/4W 5	TA52
	R803P	ORD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/4W 5	TA52
	R804P	ORD1502F609	RESISTOR,FIXED CARBON FILM	15K 1/4W 5	TA52
	R804S	ODD414809E9	DIODE	(DS4148) TA	
	R804S	ORD3901F609	RESISTOR,FIXED CARBON FILM	3.9K 1/4W 5	TA52
	R805P	ORS2403J665	RESISTOR,FIX METAL FILM OXIDE	240K 1W 5 SF20	
	R806P	ORS2403J665	RESISTOR,FIX METAL FILM OXIDE	240K 1W 5 SF20	
	R807P	ORS082ZJ665	RESISTOR,FIX METAL FILM OXIDE	82 1W 5 SF20	
	R808P	ORN68006609	RESISTOR, FIX METAL FILM	0.68 1/4W 5 TA52	
	R809P	180-142E	RESISTOR	CEMENT RNR SW 180 OHM	
	R810P	ORD66826609	RESISTOR,FIXED CARBON FILM	68 1/4W 5	TA52
	R811P	ORS1502L667	RESISTOR,FIX METAL FILM OXIDE	15K 3W 5 SF30	
	R811S	ORS1500K600	RESISTOR,FIX METAL FILM OXIDE	150 2W 5 A	
	R812P	180-142F	RESISTOR	CEMENT RNR SW 2.2J	
	R813P	180-042B	RESISTOR	1/24 GF 4.7MOHM KUL	
	R814P	ORD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/4W 5 TA52	
	R815P	ORD30026609	RESISTOR,FIXED CARBON FILM	30K 1/4W 5 TA52	
	R816P	ORD30026609	RESISTOR,FIXED CARBON FILM	30K 1/4W 5 TA52	
	R817P	ORD01826609	RESISTOR,FIXED CARBON FILM	18 1/4W 5 TA52	
	R9	ORD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/4W 5 TA52	
	R901	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52	
	R902	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52	
	R903	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52	
	R904	ORS1002J665	RESISTOR, FIX METAL FILM OXIDE	10K 1W 5 SF20	
	R905	ORS1002J665	RESISTOR, FIX METAL FILM OXIDE	10K 1W 5 SF20	
	R906	ORS1002J665	RESISTOR, FIX METAL FILM OXIDE	10K 1W 5 SF20	
	R907	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52	
	R908	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52	
	R909	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52	
	R910	ORD18016609	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52	
	R911	ORD18016609	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52	
	R912	ORD18016609	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52	
	R913	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52	
	R914	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52	
	R915	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52	
	R916	ORD1800G609	RESISTOR,FIXED CARBON FILM	180 1/4W 5 TA52	

REPLACEMENT PARTS LIST					
PAGE : 14					
MODEL : CBT-2190X HPTRT		BUYER NAME : TEAC-ATL(CT-M215)			
RUN-DATE : 91.11.26					
S	AL	LOCA,NO	PART NO(GS) DESCRIPTION	SPECIFICATION	REMARKS
	R917	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5	TA52
	R921	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5	TA52
	R922	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5	TA52
	R923	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5	TA52
	SW301	140-111A	SWITCH	SUC P12T21	
	SW851	140-278C	SWITCH	MAIN, MESC(TV-5)	
	TC1	181-169A	CAPACITOR	CAPACITOR TRIMMER 4.5P-20P	
	T8H51	163-012A	THERMISTOR	PTC, PTH451A102BG180M290	
	T401	151-387A	TRANSFORMER	H-DRIVE	
	T402	154-194B	FBT	FCJ4-194B-21SP4	
	T801	151-346B	TRANSFORMER	SMPS, PL04A	
	VR101	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B5.0KOHM	
	VR301	0RV1104D330	VARIABLE RESISTOR,CARBON FILM	100K 6 ST P3 L2.5 5	
	VR302	0RV1104D330	VARIABLE RESISTOR,CARBON FILM	100K 6 ST P3 L2.5 5	
	VR303	0RV15030230	VARIABLE RESISTOR,CARBON FILM	50K 6 ST P3 L2.5 5	
	VR401	180-428H	RESISTOR	SEMI VR EVN-D4A A01 B10K OHM	
	VR402	180-428H	RESISTOR	SEMI VR EVN-D4A A01 B10K OHM	
	VR701	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B2.0KOHM	
	VR801	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B5.0KOHM	
	VR901	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B5.0KOHM	
	VR902	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B5.0KOHM	
	VR903	180-428E	RESISTOR	SEMI VR EVN-D4A A01 B5.0KOHM	
	VR904	180-428C	RESISTOR	SEMI VR EVN-D4A A01 B500 OHM	
	VR905	180-428C	RESISTOR	SEMI VR EVN-D4A A01 B500 OHM	
	X3X	156-007C	OSCILLATOR	OSC-X-TAL 6.0MHZ	
	X1	156-007D	OSCILLATOR	OSC-X-TAL 13.875MHZ	
	X2	156-007C	OSCILLATOR	OSC-X-TAL 6.0MHZ	
	X701	156-007L	OSCILLATOR	X-TAL 10.000MHZ	
	ZD460T	0DZ560009AA	DIODE ZENER	MTZ5..6B,TP(S2MM),ROHM	
	Z01	0DZ560009AA	DIODE ZENER	MTZ5..6B,TP(S2MM),ROHM	
	ZD401	0DZ330009BA	DIODE ZENER	ZENER HZ133 TAPING	
	ZD402	0DZ750009AA	DIODE ZENER	MTZ7..5B,TP(S2MM),ROHM	
	ZD701	0DZ560009AA	DIODE ZENER	MTZ5..6B,TP(S2MM),ROHM	
	ZD730	0DZ560009AA	DIODE ZENER	MTZ5..6B,TP(S2MM),ROHM	
	ZF101	166-250A	FILTER	SAW FILTER G1872	
	Z101	166-031B	FILTER	CERAMIC TPS 5.5MB	
	Z601	166-126B	FILTER	CDA 5.SMC24B	
	Z602	166-002D	FILTER	CERAMIC SFE 5.5MB	
	Z102	166-031E	FILTER	TPS 6.5MB	
		*** END OF DATA ***			

REPLACEMENT PARTS LIST				PAGE : 1		
MODEL : CBZ-4825X HPTRT	BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10			
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		OCC330P410	CAPACITOR CERAMIC(TEMP COMP)	33P 50V J NPO 3		
		OIPH301000A	IC, PHILIPS	SAA3010.2B0.TX IC		
		1PTF0403116	SCREW,TRUGS HEAD TAP TITE *	"P" TYPE D4 L16 MWSR3/BK		
		105-057R	TRANSMITTER	(T-22)(W/TXT,PC044,TEAC)		
		110-A31P	PWB ASSY	CPT PC092X2 19"(DIE BOARD)		
		110-M79A	PCB ASSY	TXT(PC044,FACT)		
		110-T43A	PCB ASSY	MAIN PAL ONLY W/TXT A/V		
		113-109J	TUNER	CERIA-707B(ALPS).PAL B/G		
		120-C24D	SPEAKER	ASV CBT-4742		
		120-C93C	SPEAKER	OSFI0BRA.88.2W.50X90		
		132-204D	ANTENNA	ASSY,ROD3 SECT. F/L 400.5TS		
		150-276F	COIL	DEGAUSING.14".42TC		
		153-041M	DY	DCAF14061M-14PLAA		
		166-015U	FILTER	KBR455B(TRL(WASHABLE)		
		170-799A	LEAD SET	ASV,OPT EARTH (14")		
		174-170A	CORD	POWER SAA 250AC 7.5AMP SWAIN		
		174-171D	CORD	ASV,POWER (AUST.)		
		205-V0231J	CPT	A34-C012XX 02G7BD (DY=4PIN)		
		300-855T	CABINET ASSY	CBZ-4825X HPTRT		
		303-C58A	COVER	BATTERY(1-22.3V)		
		303-073S	COVER	ASV,BACK(TEAC,14")		
		305-002D	HOUSING	2P AMP 171157-1 (10)		
		309-961A	CHASSIS ASSY	MAIN PC044 W/TXT 14"		
		312-258A	FRAME	MAIN CHASSIS (PC91A)		
		315-442D	DOOR	ASSY,CONTROL(CT-M145)		
		316-244J	WINDOW	CH,DISPLAY(CBZ-4825X,TEAC)		
		320-062B	SPRING	KNOB		
		327-029A	SEAT	RUBBER		
		332-057B	SCREW	ASV,HEXAGON HEAD		
		341-184D	HOLDER	LEAD TWISTER		
		341-259E	HOLDER	POWER CORD		
		341-335A	HOLDER	METAL ASSY		
		341-409H	HOLDER	LEAD WIRE		
		341-596A	HOLDER	LED		
		345-823B	SUPPORTER	SPK		
		343-854D	SUPPORTER	PWB		
		371-727A	PACKING	TOP,(CBT-4822/25)		
		371-728A	PACKING	BOTTOM,(CBT-4822/25)		
		372-H57D	BOX	INNER CBZ-4825X HPTRT		
		381-094C	SOCKET	CPT(PCS-624),W/CAP		
		407-688S	PLATE	CONTROL DEC0(CBZ-4825X,TEAC)		
		410-558R	MARK	BRAND(TEAC,14")		
		413-461J	LABEL, ID	CBZ-4825X HPTRT(CT-M145)		
		441-149B	BUTTON	POWER(4825)		
		450-018C	ADAPTER	ANT.(300 TO 75) PAL		
		482-E31E	INSTRUCTIONS(OWNER'S MANUAL)	CBZ-4825X HPTRT(CT-M145)		
		486-223D	CARD	AUSTRALIA TEAC (REGISTRATION)		
		489-202K	KIT PRINTING	CBZ-4825X HPTRT(CT-M145)		
C1		OCE1076F618	CAPACITOR,ELECTROLYTIC	100MF SMS 16V M FMS TPS		
C10		OCE1076F618	CAPACITOR,ELECTROLYTIC	100MF SMS 16V M FMS TPS		

REPLACEMENT PARTS LIST				PAGE : 3		
MODEL : CBZ-4825X HPTRT	BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10			
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
		C28-	OCC1010K415	CAPACITOR,CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C29	OCC1010K415	CAPACITOR,CERAMIC(TEMP COMP)	100MF SMS 16V M FMS TPS	
		C30	OCE1010K415	CAPACITOR,CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C301	181-221H	CAPACITOR,ELECTROLYTIC	100MF 35V	
		C302	OCE1076J618	CAPACITOR,ELECTROLYTIC	100M SMS 35V M FMS(TPS)	
		C303	OCE335M618	CAPACITOR,ELECTROLYTIC	3.3U SMS 50V M FMS TPS	
		C304	OQC335N618	CAPACITOR,POLYESTER(MYLAR)	0.033U 100V K POLY TP	
		C305	181-221H	CAPACITOR,ELECTROLYTIC	100MF 35V	
		C306	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP	
		C307	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP	
		C308	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	TANTAL 35V 0.22MF TAPEING	
		C31	OCC1010K415	CAPACITOR,CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C310	OQC2231N509	CAPACITOR,POLYESTER(MYLAR)	0.022MF 100V K POLY TP	
		C311	181-032Z	CAPACITOR	0.01U 100V K POLY TP	
		C312	OQC1031N509	CAPACITOR,POLYESTER(MYLAR)	0.01U 100V K POLY TP	
		C313	OQC1031N509	CAPACITOR,POLYESTER(MYLAR)	0.01U 100V K POLY FS	
		C32	OCE476M618	CAPACITOR,ELECTROLYTIC	47MF SMS 16V M FMS TPS	
		C4	OQC1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS	
		C401	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP	
		C403	OQC4721N509	CAPACITOR,POLYESTER(MYLAR)	0.0047MF 100V K POLY TP	
		C404	OCE1076J618	CAPACITOR,ELECTROLYTIC	100M SMS 35V M FMS(TPS)	
		C405	181-131F	CAPACITOR	CAPACITOR MPP 732J	
		C406	OCE1051P618	CAPACITOR,ELECTROLYTIC	1M SMS 160V M FMS TPS	
		C407	OCE1051P618	CAPACITOR,METALPOLYPROPYLENE	0.39MF 200V	
		C408	OQC1031N519	CAPACITOR,POLYESTER(MYLAR)	0.01U 100V K POLY NC TP	
		C409	OCE224M618	CAPACITOR,ELECTROLYTIC	0.22M SMS 50V M FMS TPS	
		C410	OQC1031N509	CAPACITOR,POLYESTER(MYLAR)	0.01U 100V K POLY TP	
		C411	OCE1064F618	CAPACITOR,ELECTROLYTIC	10MF SMS 16V M FMS TPS	
		C412	OCE1064F618	CAPACITOR,ELECTROLYTIC	10MF SMS 50V M FMS TPS	
		C413	OQC1010R415	CAPACITOR,CERAMIC(TEMP COMP)	100P 50V J NPO TS	
		C414	OCE1086F618	CAPACITOR,ELECTROLYTIC	1000M SMS16V M FMS(TPS)	
		C416	OCE1046F618	CAPACITOR,ELECTROLYTIC	0.1U SMS 50V M FMS TPS	
		C417	OQC2231N509	CAPACITOR,POLYESTER(MYLAR)	0.022MF 100V K POLY TP	
		C418	OQC1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS	
		C419	181-095A	CAPACITOR	PE 100V 0.01MF	
		C420	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP	
		C421	OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP	
		C422	OQC1056I618	CAPACITOR,ELECTROLYTIC	1.0MF SMS 250V M FMS TPS	
		C423	OCE1076J618	CAPACITOR,ELECTROLYTIC	100M SMS 35U M FMS TPS	
		C424	OQC1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS	
		C425	OCE476M618	CAPACITOR,ELECTROLYTIC	47M SMS 50V M FMS TPS	
		C426	OQC2710M515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS	
		C427	OCE1086F618	CAPACITOR,ELECTROLYTIC	1000M SMS16V M FMS(TPS)	
		C428	OQC2710M515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS	
		C429	OCE476M618	CAPACITOR,ELECTROLYTIC	47MF SMS 16U M FMS TPS	
		C430	181-059D	CAPACITOR	PP 200V 0.04MF	
		C431	OQC4751R630	CAPACITOR,ELECTROLYTIC	4.7M SMS 250V M FMS	
		C432	OQC2710W515	CAPACITOR,CERAMIC(HIGH DIELE)	270P 500V K B TS	

REPLACEMENT PARTS LIST				PAGE : 2		
MODEL : CBZ-4825X HPTRT	BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10			
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
C101		OCC1020K515	CAPACITOR,CERAMIC(TEMP COMP)	1000PF 500V K B S		
C102		OCE475K618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
C103		OCE225M618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
C104		OCE1076F618	CAPACITOR,ELECTROLYTIC	100MF SMS 16V M FMS TPS		
C105		OCC1500K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NPO TP		
C106		OCE225M618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
C108		OCE476M618	CAPACITOR,ELECTROLYTIC	47MF SMS 16V M FMS TPS		
C109		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C11		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C12		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C13		OCE225K618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
C14		OCE2710W415	CAPACITOR,CERAMIC(TEMP COMP)	27P 50V J NPO TP		
C15		OCE1500K405	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NPO TP		
C16		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C163		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C164		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C165		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C166		OCE1064F618	CAPACITOR,ELECTROLYTIC	10MF SMS 16V M FMS TPS		
C167		OCE1064F618	CAPACITOR,ELECTROLYTIC	10MF SMS 16V M FMS TPS		
C168		OCE1064F618	CAPACITOR,ELECTROLYTIC	10MF SMS 16V M FMS TPS		
C169		OQC1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 1000 L POLY TP		
C17		OCE22710M405	CAPACITOR,CERAMIC(TEMP COMP)	270P 500V J SL TP		
C170		OCE475M618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
C171		OCE1064F618	CAPACITOR,ELECTROLYTIC	100MF SMS 16V M FMS TPS		
C172		OCC2200K15	CAPACITOR,CERAMIC(TEMP COMP)	8P 50V D NPO TS		
C18		OQC2231N509	CAPACITOR,POLYESTER(MYLAR)	0.022MF 100V K POLY TP		
C19		OCE474M618	CAPACITOR,CERAMIC(HIGH DIELE)	47OP 50V K B TS		
C20		OCE1012M509	CAPACITOR,POLYESTER(MYLAR)	0.001U 100V K POLY TP		
C201		OCE1066F618	CAPACITOR,ELECTROLYTIC	10MF SMS 16V M FMS TPS		
C202		OCE1066F618	CAPACITOR,ELECTROLYTIC	10MF SMS 50V M FMS TPS		
C203		OCE475M618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
C204		OCE475M618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
C206		OCE475K618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
C209		OCE1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
C21		OCE1150K415	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NPO TP		
C210		OCE1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
C211		OCE1041N509	CAPACITOR,POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
C213		OCE225K618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
C214		OCE1064K618	CAPACITOR,ELECTROLYTIC	10MF SMS 50V M FMS TPS		
C215		OCE1056K618	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
C216		OCE560K405	CAPACITOR,CERAMIC(TEMP COMP)	560P 50V J SL TS		
C217		OCE1031N509	CAPACITOR,POLYESTER(MYLAR)	0.01U 100V K POLY TP		
C218		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
C220		OCE560K405	CAPACITOR,CERAMIC(TEMP COMP)	56P 50V J NPO TP		
C23		OCC2700K15	CAPACITOR,CERAMIC(TEMP COMP)	27P 50V J NPO TP		
C24		OCE1056K618	CAPACITOR,CERAMIC(TEMP COMP)	27P 50V J NPO TP		
C25		OCE1056K618	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
C26		OCE1076F618	CAPACITOR,ELECTROLYTIC	100MF SMS 16V M FMS TPS		
C27		OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		

REPLACEMENT PARTS LIST			

REPLACEMENT PARTS LIST				PAGE : 5		
MODEL : CBZ-4825X HPTRT		BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10		
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	C8035	OCE2710515	CAPACITOR CERAMIC(HIGH DIELE)	270P 50V K B TS		
	C804P	181-0570	CAPACITOR	PE 100V 0.0082MF		
	C804S	OCE1086F616	CAPACITOR,ELECTROLYTIC	1000M SMS16V M FM(S) TP(5)		
	C805P	OCE1076F616	CAPACITOR,ELECTROLYTIC	100M SMS 16V M FMS TPS		
	C805S	OCE1076H616	CAPACITOR,ELECTROLYTIC	100M SMS 25V M FMS TP(S)		
	C808P	181-131E	CAPACITOR	MPP 2KV 222A		
	C808S	OCE4761P616	CAPACITOR,ELECTROLYTIC	47M SM 160V M TP7.5		
	C807P	OCE1066K616	CAPACITOR,ELECTROLYTIC	10MF SMS 50V M FMS TPS		
	C807S	OCE3361P616	CAPACITOR,ELECTROLYTIC	33U SM 160V M FL TPS		
	C808P	181-124A	CAPACITOR	CE (400V/120UF)		
	C809P	OCE1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000PF 500V K B TS		
	C810P	OCE1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000PF 500V K B TS		
	C811P	OCE1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000PF 500V K B TS		
	C812P	OCE1020W515	CAPACITOR,CERAMIC(HIGH DIELE)	1000PF 500V K B TS		
	C814P	181-157A	CAPACITOR	ECK-DNS 222 MEX		
	C815P	OCE1056K616	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
	C816P	181-410A	CAPACITOR	ECK-DNS472MEX		
	C817P	OCC2710K405	CAPACITOR CERAMIC(TEMP COMP)	270P 50V J SL TP		
	C851	181-408C	CAPACITOR	250V 0.47UF (ISKRA)		
	C852	181-408C	CAPACITOR	250V 0.47UF (ISKRA)		
	C853	181-093A	CAPACITOR	DE 7090B 102KVA IMKC4-14		
	C9	OCE4731N409	CAPACITOR POLYESTER(MYLAR)	0.047U 100V J POLY TP		
	C901	OCC301K400	CAPACITOR CERAMIC(TEMP COMP)	300P 50V J SL S		
	C902	OCC2710K400	CAPACITOR CERAMIC(TEMP COMP)	270P 50V J SL S		
	C903	OCC2710K400	CAPACITOR CERAMIC(TEMP COMP)	270P 50V J SL S		
	C904	OCE4766F618	CAPACITOR,ELECTROLYTIC	47M SMS 16V M FMS TPS		
	C905	OCE12202510	CAPACITOR,CERAMIC(HIGH DIELE)	1200P 2KV B S		
	DL201	150-377G	COIL	DELAY LINE(350N)		
	DL501	175-001C	DELAY LINE	1H ADL-CPI144E(VE)		
	D1	000414809ED	DIODE	(DS4148) TA		
	D102	000414809ED	DIODE	(DS4148) TA		
	D2	000414809ED	DIODE	(DS4148) TA		
	D201	000414809ED	DIODE	(DS4148) TA		
	D204	000414809ED	DIODE	(DS4148) TA		
	D205	000414809ED	DIODE	(DS4148) TA		
	D206	000414809ED	DIODE	(DS4148) TA		
	D207	000414809ED	DIODE	(DS4148) TA		
	D208	000414809ED	DIODE	(DS4148) TA		
	D3	000414809ED	DIODE	(DS4148) TA		
	D301	0004005094A	DIODE	1N4005 GP TA		
	D4	000414809ED	DIODE	(DS4148) TA		
	D401	0004005094A	DIODE	1N4005 GP TA		
	D402	0004005094A	DIODE	1N4005 GP TA		
	D403	000150009CA	DIODE	RGP15J.TP(52MM).GI		
	D404	000100009EA	DIODE	R10J SYMBOL TP		
	D405	000100009EA	DIODE	R10J SYMBOL TP		
	D406	000100009EA	DIODE	RU-1A V		
	D407	000100009EA	DIODE	R10J SYMBOL TP		
	D408	000150009CA	DIODE	RGP15J.TP(52MM).GI		

REPLACEMENT PARTS LIST				PAGE : 7		
MODEL : CBZ-4825X HPTRT		BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10		
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	IC4	381-058B	SOCKET	IC SOCKET WSD16-2BT (WOODYOUNG)		
	IC401	O1TF194000A	IC.	TELEFUNKEN	TDA1940-A(TPK)	
	IC5	O1X142020B	IC.	XICOR	X24C02P-80.EEPROM(2K.CMOS)	
	IC601C	O1TF120000A	IC.	TELEFUNKEN	TDA12006.SOUND	
	IC602	O1SG200600A	IC.	SGS-THOMSON		
	IC701	O1PH46400A	IC.	PHILIPS	PCA 84C64	
	IC702	O1MP857200B	IC.	MICRO CHIP TECHNOLOGY	85C72-801P.EEPROM.MEMORY	
	IC801	O1SM460100A	IC.	SIEMENS	TDA4601	
	J31	00R0200F609	RESISTOR.FIXED CARBON FILM			
	L701	0000000000A	DIODE			
	L1	0LA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.3x3.4 TP		
	L101	0LA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.3x3.4 TP		
	L102	150-813G	COIL	IFT(7MM)38.9MHZ-68PF		
	L103	150-813H	COIL	IFT(7MM)38.9MHZ-55PF		
	L104	0LA0102K119	INDUCTOR AXIAL LEAD	10UH K 2.3x3.4 TP		
	L105	0LA0152K119	INDUCTOR AXIAL LEAD	10UH K 2.3x3.4 TP		
	L162	150-167D	COIL	CHOKE 1.0 UH		
	L201	0LA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.3x3.4 TP		
	L401	150-580H	COIL	PEAWING COIL(350UH)		
	L402	150-224L	COIL	LINEARITY		
	L403	150-579H	COIL	CHOKE 100UH(NANYANG)		
	L602	0LA0821K119	INDUCTOR AXIAL LEAD	8.2UH K 2.3x3.4 TP		
	L701	0LA0152K119	INDUCTOR AXIAL LEAD	15UH K 2.3x3.4 TP		
	L801P	0LA0221K119	INDUCTOR AXIAL LEAD	2.2UH K 2.3x3.4 TP		
	L802P	0LA0470K119	INDUCTOR AXIAL LEAD	0.47UH K 2.3x3.4 TP		
	L804S	150-235E	COIL	HOR. CHOKE 1MH(1A)		
	L851	150-670B	COIL	LINE FILTER(70MHZ)		
	P41	106-0428	PRE-AMP	US-RC-37V1		
	PC501	OCE1074K618	CAPACITOR,ELECTROLYTIC	100ME SMS 16U M FMS TPS		
	PC502	OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
	PC503	OCE474K618	CAPACITOR,ELECTROLYTIC	0.47MF SMS 50V M FMS TPS		
	PC504	OCE1030K945	CAPACITOR,CERAMIC(HIGH DIELE)	0.01MF 50V Z F TS		
	PC505	OCC300K0415	CAPACITOR,CERAMIC(ITEM COMP)	350 P 50V J NPO TP		
	PC506	OCC8200K415	CAPACITOR,CERAMIC(ITEM COMP)	82P 50V J NPO TP		
	PC507	OCE1210K415	CAPACITOR,CERAMIC(ITEM COMP)	120P 50V J NPO TP		
	PC508	OCE474K618	CAPACITOR,ELECTROLYTIC	0.47MF SMS 50V M FMS TPS		
	PC509	OCE2254K618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
	PC510	OCE474K618	CAPACITOR,ELECTROLYTIC	0.47MF SMS 50V M FMS TPS		
	PC511	OCE2266F618	CAPACITOR,ELECTROLYTIC	22MF SMS 16U M FMS TPS		
	PC512	OCE0104IN509	CAPACITOR POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
	PC513	OCE4758K618	CAPACITOR,ELECTROLYTIC	4.7MF SMS 50V M FMS TPS		
	PC514	OCE1056K818	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
	PC515	OCE1056K818	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
	PC516	OCE1056K818	CAPACITOR,ELECTROLYTIC	1.0MF SMS 50V M FMS TPS		
	PC517	OCE1030F479	CAPACITOR TUBELA(HIGH DIELE)	10000PF 16V M Y T52		
	PC518	OCE0104IN509	CAPACITOR POLYESTER(MYLAR)	0.01U 100V L POLY TP		
	PC519	OCE0104IN509	CAPACITOR POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
	PC520	OCE2254K618	CAPACITOR,ELECTROLYTIC	2.2MF SMS 50V M FMS TPS		
	PC521	OCE0104IN509	CAPACITOR POLYESTER(MYLAR)	0.1MF 100V L POLY TP		
	PC522	OCE474K618	CAPACITOR,ELECTROLYTIC	0.47MF SMS 50V M FMS TPS		

REPLACEMENT PARTS LIST				PAGE : 8		
MODEL : CBZ-4825X HPTRT		BUYER NAME : TEAC-ATL		RUN-DATE : 92.04.10		
S	AL	LOCA.NO	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARKS
	PC528	OCE476F618	CAPACITOR,ELECTROLYTIC	47H SMS 16U M FMS TPS		
	PD502	00D414809ED	DIODE	(DS4148) TA		
	PD503	O1TF356000A	DIODE	(DS4148) TA		
	PIC501	O1TF356000A	IC.	TELEFUNKEN	TDA-3560-B(TPK)	
	PL502	0LA0102K119	INDUCTOR AXIAL LEAD	10UH K 2.3x3.4 TP		
	PL503	0LA0681K119	INDUCTOR AXIAL LEAD	6.8UH K 2.3x3.4 TP		
	PL504	150-163G	COIL	MATRIX ADJ(PC07X)		
	PR501	0RD2204F609	RESISTOR,FIXED CARBON FILM	2.2H 1/W 5 T52		
	PR502	0RD2701F609	RESISTOR,FIXED CARBON FILM	2.7K 1/W 5 T52		
	PR503	0RD2200F609	RESISTOR,FIXED CARBON FILM	220 1/W 5 T52		
	PR504	0RD3602F609	RESISTOR,FIXED CARBON FILM	36K 1/W 5 T52		
	PR505	0RD2701F609	RESISTOR,FIXED CARBON FILM	2.7K 1/W 5 T52		
	PR506	0RD2701F609	RESISTOR,FIXED CARBON FILM	2.7K 1/W 5 T52		
	PR507	0RD2701F609	RESISTOR,FIXED CARBON FILM	2.7K 1/W 5 T52		
	PR508	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/W 5 T52		
	PR509	0RD1201F609	RESISTOR,FIXED CARBON FILM	1.2K 1/W 5 T52		
	PR510	0RD3901F609	RESISTOR,FIXED CARBON FILM	390 1/W 5 T52		
	PR511	0RD4700F609	RESISTOR,FIXED CARBON FILM	470 1/W 5 T52		
	PR512	0RD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/W 5 T52		
	PR513	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/W 5 T52		
	PR514	0RD5601F609	RESISTOR,FIXED CARBON FILM	5.6K 1/W 5 T52		
	PR515	0RD3901F609	RESISTOR,FIXED CARBON FILM	5.9K 1/W 5 T52		
	PR516	0RD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/W 5 T52		
	PTC501	181-169A	CAPACITOR	CAPACITOR TRIMMER 4.5P-20P		
	PVR501	0RV11020330	VARIABLE RESISTOR,CARBON FILM	1.0K 6 ST P3 L2.5 S		
	PVR502	0DV122300330	VARIABLE RESISTOR,CARBON FILM	1.0K 6 ST P3 L2.5 S		
	PX501	156-002E	OSCILLATOR	8.84723MHz (TAPING)		
	P201	381-0904	PERI-CON	ASSY,2PIN PERI-SOCKET		
	P401	366-9328	PIN	WAFER IL-6 32.5x5.5STICK		
	P601	366-9328	PIN	WAFER IL-6 32.5x5.5STICK		
	P701	140-3064	SWITCH	BLOCK.RK09VA10-5W(X1G/G/S)		
	P702	366-9328	PIN	WAFER IL-6 22.5x5.5STICK		
	P801	366-0098	PIN	PLUG		
	P802	366-0098	PIN	PLUG		
	Q1	0TR322360048	TRANSISTOR	KTC2236-0,KEC		
	Q161	0TR31970908	TRANSISTOR	KTC3197-1,PK(KTC388A),KEC		
	Q162	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC		
	Q201	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC		
	Q202	0TR31980904F	TRANSISTOR	KTC3198-0,TP(KTC1815),KEC		
	Q301	0TR31980904F	TRANSISTOR	KTC3198-0,TP(KTC1815),KEC		
	Q302	0TR31980904	TRANSISTOR	KTC3198-0,TP(KTC1815),KEC		
	Q401	0TR22300904	TRANSISTOR	KTC2230-Y, TP, KEC		
	Q402	0TR1651000B	TRANSISTOR	2S01651 (SANDO)		
	Q403	0TR31980904	TRANSISTOR	KTC3198-TP-GR (KTC1815)		
	P401	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC		
	P402	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC		
	P701	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC		
	P702	0TR31980904	TRANSISTOR	KTC3198-TP-Y (KTC1815),KEC	</td	

REPLACEMENT PARTS LIST:

PAGE : 9

MODEL : CBZ-4825X HPIRT BUYER NAME : TEAC-ATL

RUN-DATE : 92.04.10

S	AL	LOCA.	ND	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARK
9707		OTR3198096F		TRANSISTOR	KTC3198-0.1P(TC1815).JEC		
9708		OTR3198096F		TRANSISTOR	KTC3198-0.1P(TC1815).JEC		
9709		OTR3198096F		TRANSISTOR	KTC3198-0.1P(TC1815).JEC		
9710		OTR1266094C		TRIWEISTOR	KTA1266-0.TP(TA1015).JEC		
9711		OTR1266094C		TRANSISTOR	KTA1266-0.TP(TA1015).JEC		
9712		OTR1266094C		TRANSISTOR	KTA1266-0.1P(TA1015).JEC		
9713		OTR3202196A		TRANSISTOR	KTC3202-TP-Y (KTC1959).JEC		
9714		OTR1266094A		TRANSISTOR	KTA1266-TP-Y (KTA1015).JEC		
9801		OTR1555004A		TRANSISTOR	KTD1555		
98015		OTR3202196A		TRANSISTOR	KTC3202-TP-Y (KTC1959).JEC		
9901		OTR2048008A		TRANSISTOR	KTC2048-.JEC		
9902		OTR2048008A		TRANSISTOR	KTC2048-.JEC		
9903		OTR2048008A		TRANSISTOR	KTC2048-.JEC		
R0710		00414809ED		DIODE	(DS148) TA		
RLB01		141-18A		RELAY	081201-0(M)		
R1		ORS0182L667		RESISTOR,FIX METAL FILM OXIDE	18.3W 5 SF50		
R10		ORD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W S T452		
R102		ORD1000F609		RESISTOR,FIXED CARBON FILM	100 1/6W S T452		
R104		ORD56101F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W S T452		
R105		ORD3301F609		RESISTOR,FIXED CARBON FILM	3.3K 1/6W S T452		
R106		ORD7500F609		RESISTOR,FIXED CARBON FILM	750 1/6W S T452		
R107		ORD1201F609		RESISTOR,FIXED CARBON FILM	1.0K 1/6W S T452		
R108		ORD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W S T452		
R109		ORD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W S T452		
R110		ORD2200F609		RESISTOR,FIXED CARBON FILM	220 1/6W S T452		
R111		ORD1201F609		RESISTOR,FIXED CARBON FILM	2.7K 1/6W S T452		
R112		ORD0752F609		RESISTOR,FIXED CARBON FILM	75 1/6W S T452		
R13		ORD1040F609		RESISTOR,FIXED CARBON FILM	1.0M 1/6W S T452		
R14		ORD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W S T452		
R15		ORD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W S T452		
R16		ORD1201F609		RESISTOR,FIXED CARBON FILM	1.2K 1/6W S T452		
R161		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R162		ORD0182F609		RESISTOR,FIXED CARBON FILM	18 1/6W S T452		
R163		ORD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W S T452		
R164		ORD6560F609		RESISTOR,FIXED CARBON FILM	680 1/6W S T452		
R165		ORD0182F609		RESISTOR,FIXED CARBON FILM	18 1/6W S T452		
R166		ORD0820F609		RESISTOR,FIXED CARBON FILM	820 1/6W S T452		
R167		ORD2200F609		RESISTOR,FIXED CARBON FILM	220 1/6W S T452		
R168		ORD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W S T452		
R169		ORD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W S T452		
R17		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R171		ORD56101F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W S T452		
R173		ORD4704F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W S T452		
R175		ORD4743F609		RESISTOR,FIXED CARBON FILM	4.7M 1/6W S T452		
R18		ORD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W S T452		
R19		ORD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W S T452		
R2		ORD8200F609		RESISTOR,FIXED CARBON FILM	820 1/6W S T452		
R20		ORD3900F609		RESISTOR,FIXED CARBON FILM	390 1/6W S T452		
R201		ORD1201F609		RESISTOR,FIXED CARBON FILM	1.2K 1/6W S T452		
R202		ORD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W S T452		

S	AL	LOCA.	ND	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARK
R205		ORD1201F609		RESISTOR,FIXED CARBON FILM	120 1/6W S T452		
R205		ORD0560F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W S T452		
R207		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R209		ORD2202F609		RESISTOR,FIXED CARBON FILM	220 1/6W S T452		
R21		ORD2202F609		RESISTOR,FIXED CARBON FILM	220 1/6W S T452		
R210		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R211		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R212		ORD0150F609		RESISTOR,FIXED CARBON FILM	1.5K 1/6W S T452		
R214		ORD1001F609		RESISTOR,FIXED CARBON FILM	1.0K 1/6W S T452		
R215		ORD0150F609		RESISTOR,FIXED CARBON FILM	510 1/6W S T452		
R218		ORD3300F609		RESISTOR,FIXED CARBON FILM	330 1/6W S T452		
R219		ORD4701F609		RESISTOR,FIXED CARBON FILM	4.7K 1/6W S T452		
R220		ORD1200F609		RESISTOR,FIXED CARBON FILM	120 1/6W S T452		
R221		ORD1200F609		RESISTOR,FIXED CARBON FILM	120 1/6W S T452		
R222		ORD1200F609		RESISTOR,FIXED CARBON FILM	120 1/6W S T452		
R225		ORD0752F609		RESISTOR,FIXED CARBON FILM	75 1/6W S T452		
R226		ORD0220F609		RESISTOR,FIXED CARBON FILM	220 1/6W S T452		
R227		ORD2003F609		RESISTOR,FIXED CARBON FILM	200K 1/6W S T452		
R228		ORD04702F609		RESISTOR,FIXED CARBON FILM	47K 1/6W S T452		
R23		ORD3301F609		RESISTOR,FIXED CARBON FILM	3.3K 1/6W S T452		
R230		ORD1502F609		RESISTOR,FIXED CARBON FILM	15K 1/6W S T452		
R3		ORD5602F609		RESISTOR,FIXED CARBON FILM	56K 1/6W S T452		
R301		ORD4702F609		RESISTOR,FIX METAL FILM	47K 1/6W S T452		
R302		ORD4702F609		RESISTOR,FIXED CARBON FILM	47K 1/6W S T452		
R303		ORD1502F609		RESISTOR,FIXED CARBON FILM	15K 1/6W S T452		
R304		ORD4700H609		RESISTOR,FIXED CARBON FILM	470 1/2W S T452		
R305		ORD8201F609		RESISTOR,FIX METAL FILM	8.2K 1/6W S T452		
R306		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R307		ORD1510H609		RESISTOR,FIXED CARBON FILM	1.5K 1/4W S T452		
R308		ORD0151H609		RESISTOR,FIX METAL FILM	1.5 1/2W S T452		
R309		ORD1201H609		RESISTOR,FIXED CARBON FILM	1.2K 1/2W S T452		
R310		ORD2403F609		RESISTOR,FIXED CARBON FILM	240K 1/6W S T452		
R311		ORD6202F609		RESISTOR,FIXED CARBON FILM	62K 1/6W S T452		
R312		ORD2701F609		RESISTOR,FIXED CARBON FILM	2.7K 1/6W S T452		
R313		ORD2023F609		RESISTOR,FIXED CARBON FILM	220K 1/6W S T452		
R314		ORD2703F609		RESISTOR,FIXED CARBON FILM	270K 1/6W S T452		
R315		ORD2702F609		RESISTOR,FIXED CARBON FILM	27K 1/6W S T452		
R316		ORD5601F609		RESISTOR,FIXED CARBON FILM	5.6K 1/6W S T452		
R318		ORD1002F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R319		ORD2202F609		RESISTOR,FIXED CARBON FILM	22K 1/6W S T452		
R320		ORD04703F609		RESISTOR,FIX METAL FILM OXIDE	0.47 1W 5 SF20		
R4		ORD3300F609		RESISTOR,FIXED CARBON FILM	330 1/6W S T452		
R401		ORD5600G609		RESISTOR,FIXED CARBON FILM	560 1/4W S T452		
R402		ORD5600F609		RESISTOR,FIXED CARBON FILM	560 1/6W S T452		
R403		ORD10201F609		RESISTOR,FIXED CARBON FILM	1.2K 1/6W S T452		
R404		ORD0682G609		RESISTOR,FIXED CARBON FILM	68K 1/6W S T452		
R405		ORD6800F609		RESISTOR,FIXED CARBON FILM	680 1/6W S T452		
R406		ORS1000J605		RESISTOR,FIX METAL FILM OXIDE	100 1W 5 SF20		
R409		ORD2023F609		RESISTOR,FIXED CARBON FILM	220K 1/6W S T452		
R410		ORD3501F609		RESISTOR,FIXED CARBON FILM	3.3K 1/6W S T452		

S	AL	LOCA.	ND	PART NO(GS)	DESCRIPTION	SPECIFICATION	REMARK
R411		ORD1502F609		RESISTOR,FIXED CARBON FILM	15K 1/6W S T452		
R412		ORD1501F609		RESISTOR,FIXED CARBON FILM	1.5K 1/6W S T452		
R413		ORD4702F609		RESISTOR,FIXED CARBON FILM	47K 1/6W S T452		
R414		ORD1502F609		RESISTOR,FIXED CARBON FILM	15K 1/6W S T452		
R415		ORD1000F609		RESISTOR,FIXED CARBON FILM	100 1/6W S T452		
R416		ORD1001F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R417		ORD3902F609		RESISTOR,FIXED CARBON FILM	3.9K 1/6W S T452		
R418		ORD10202F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R419		ORD3901F609		RESISTOR,FIXED CARBON FILM	100K 1/6W S T452		
R420		ORD1003F609		RESISTOR,FIXED CARBON FILM	100K 1/6W S T452		
R421		ORD9102F609		RESISTOR,FIXED CARBON FILM	91K 1/6W S T452		
R422		ORD1202F609		RESISTOR,FIX METAL FILM	12K 1/6W 5 T452		
R423		ORD8020F609		RESISTOR,FIXED CARBON FILM	80K 1/6W S T452		
R424		ORD1504F609		RESISTOR,FIXED CARBON FILM	1.5M 1/6W S T452		
R425		ORD3302F609		RESISTOR,FIXED CARBON FILM	33K 1/6W S T452		
R426		ORD1001F609		RESISTOR,FIXED CARBON FILM	1.0K 1/6W S T452		
R427		ORD36080F609		RESISTOR,FIX METAL FILM OXIDE	0.68 1W 5 SF20		
R429		ORD1003F609		RESISTOR,FIXED CARBON FILM	100K 1/6W S T452		
R430		ORD6802F609		RESISTOR,FIXED CARBON FILM	68K 1/6W S T452		
R432		ORD6801F609		RESISTOR,FIXED CARBON FILM	6.8K 1/6W S T452		
R433		ORD1202F609		RESISTOR,FIXED CARBON FILM	12K 1/6W S T452		
R434		ORD1501F609		RESISTOR,FIXED CARBON FILM	1.5K 1/6W S T452		
R435		ORD8020F609		RESISTOR,FIXED CARBON FILM	80K 1/6W S T452		
R436		ORD1501F609		RESISTOR,FIXED CARBON FILM	1.5K 1/6W S T452		
R437		ORD3904F605		RESISTOR,FIX METAL FILM OXIDE	0.68 1W 5 SF20		
R438		ORD8020F609		RESISTOR,FIXED CARBON FILM	82K 1/6W S T452		
R5		ORD2020F609		RESISTOR,FIXED CARBON FILM	20K 1/6W S T452		
R6		ORD4700F609		RESISTOR,FIXED CARBON FILM	470 1/6W S T452		
R601		ORD10201F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R602		ORD1001F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R603		ORD6800F609		RESISTOR,FIXED CARBON FILM	68K 1/6W S T452		
R604		ORD8020F609		RESISTOR,FIXED CARBON FILM	80K 1/6W S T452		
R605		ORD1003F609		RESISTOR,FIXED CARBON FILM	100K 1/6W S T452		
R606		ORD1001F609		RESISTOR,FIXED CARBON FILM	10K 1/6W S T452		
R607		ORD1001F609		RESISTOR,FIXED CARBON			

REPLACEMENT PARTS LIST

PAGE : 13

MODEL : CBZ-4825X HPTRT BUYER NAME : TEAC-ATL

RUN-DATE : 92.04.10

S	A1	LOCA,NO	PART NO(G)	DESCRIPTION	SPECIFICATION	REMARKS
	R762	ORD4702F609	RESISTOR,FIXED CARBON FILM	47K 1/6W 5 TA52		
	R763	ORD6800F609	RESISTOR,FIXED CARBON FILM	680 1/6W 5 TA52		
	R764	ORD6800F609	RESISTOR,FIXED CARBON FILM	680 1/6W 5 TA52		
	R765	ORD6800F609	RESISTOR,FIXED CARBON FILM	680 1/6W 5 TA52		
	R766	ORD3300F609	RESISTOR,FIXED CARBON FILM	330 1/6W 5 TA52		
	R767	ORD2702F609	RESISTOR,FIXED CARBON FILM	27K 1/6W 5 TA52		
	R768	ORD2200F609	RESISTOR,FIXED CARBON FILM	220 1/6W 5 TA52		
	R770	ORD8200F609	RESISTOR,FIXED CARBON FILM	820 1/6W 5 TA52		
	R772	ORD2201F609	RESISTOR,FIXED CARBON FILM	2.2K 1/6W 5 TA52		
	R775	ODD414809ED	DIODE	(OD4148) TA		
	R8	ORD4700F609	RESISTOR,FIXED CARBON FILM	470 1/6W 5 TA52		
	R801P	ORD2200F609	RESISTOR,FIXED CARBON FILM	220 1/6W 5 TA52		
	R802P	ORD1201F609	RESISTOR,FIXED CARBON FILM	1.2K 1/6W 5 TA52		
	R802S	ORD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52		
	R803P	ORD1002F609	RESISTOR,FIXED CARBON FILM	10K 1/6W 5 TA52		
	R804P	ORD1502F609	RESISTOR,FIXED CARBON FILM	15K 1/6W 5 TA52		
	R804S	ODD414809ED	DIODE	(OD4148) TA		
	R804S	ORD3901F609	RESISTOR,FIXED CARBON FILM	3.9K 1/6W 5 TA52		
	R805P	ORS2403J665	RESISTOR,FIX METAL FILM OXIDE	240K 1W 5 SF20		
	R807P	ORS0822J665	RESISTOR,FIX METAL FILM OXIDE	82 3W 5 SF20		
	R808P	ORN0680G669	RESISTOR,FIX METAL FILM	0.68 1/4W 5 TA52		
	R809P	180-142E	RESISTOR	CEMENT RNR 5W 180 OHM		
	R810P	ORD04826609	RESISTOR,FIXED CARBON FILM	68 1/4W 5 TA52		
	R811P	ORS1502L667	RESISTOR,FIX METAL FILM OXIDE	15K 3W 5 SF30		
	R811S	ORS1500K600	RESISTOR,FIX METAL FILM OXIDE	150 2W 5 A		
	R812P	180-142F	RESISTOR	CEMENT RNR 5W 2.2J		
	R813P	180-042F	RESISTOR	1/2W 6F 4.7MDMH Y(UL)		
	R814P	ORD1003F609	RESISTOR,FIXED CARBON FILM	100K 1/6W 5 TA52		
	R815P	ORD30026609	RESISTOR,FIXED CARBON FILM	30K 1/4W 5 TA52		
	R816P	ORD30026609	RESISTOR,FIXED CARBON FILM	30K 1/4W 5 TA52		
	R817P	ORD01826609	RESISTOR,FIXED CARBON FILM	18 1/4W 5 TA52		
	R808P	ORS2403J665	RESISTOR,FIX METAL FILM OXIDE	240K 1W 5 SF20		
	K9	ORD1001F609	RESISTOR,FIXED CARBON FILM	1.0K 1/6W 5 TA52		
	K901	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	K902	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	K903	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	K904	ORS1002J665	RESISTOR,FIX METAL FILM OXIDE	10K 1W 5 SF20		
	K905	ORS1002J665	RESISTOR,FIX METAL FILM OXIDE	10K 1W 5 SF20		
	K906	ORS1002J665	RESISTOR,FIX METAL FILM OXIDE	10K 1W 5 SF20		
	K907	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52		
	K908	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52		
	K909	ORD2701H609	RESISTOR,FIXED CARBON FILM	2.7K 1/2W 5 TA52		
	K910	ORD18016609	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52		
	K911	ORD18016409	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52		
	K912	ORD18016409	RESISTOR,FIXED CARBON FILM	1.8K 1/4W 5 TA52		
	K913	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52		
	K914	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52		
	K915	ORD39006609	RESISTOR,FIXED CARBON FILM	390 1/4W 5 TA52		
	K916	ORD1800G609	RESISTOR,FIXED CARBON FILM	180 1/4W 5 TA52		
	K917	ORD10005609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		

REPLACEMENT PARTS LIST

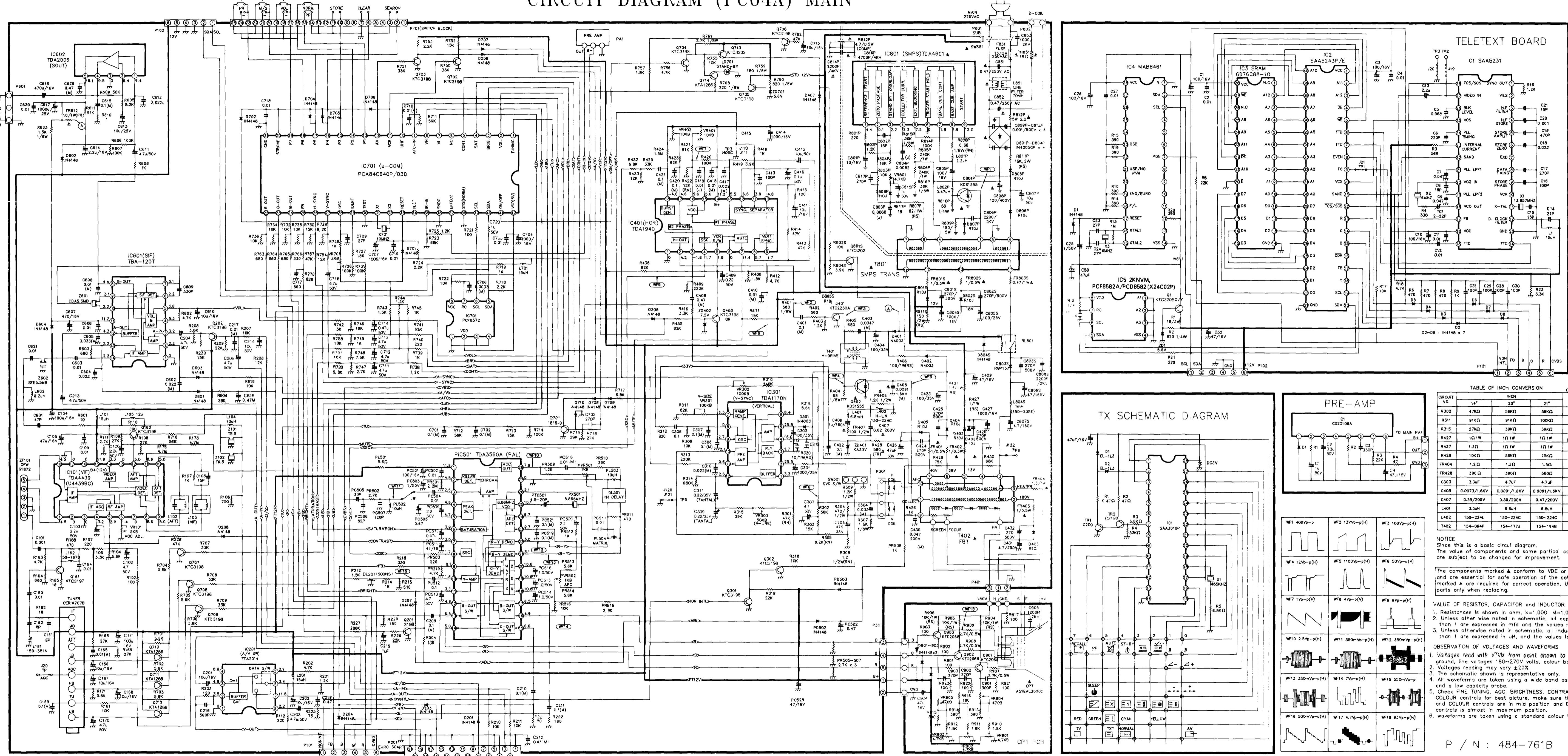
PAGE : 14

MODEL : CBZ-4825X HPTRT BUYER NAME : TEAC-ATL

RUN-DATE : 92.04.16

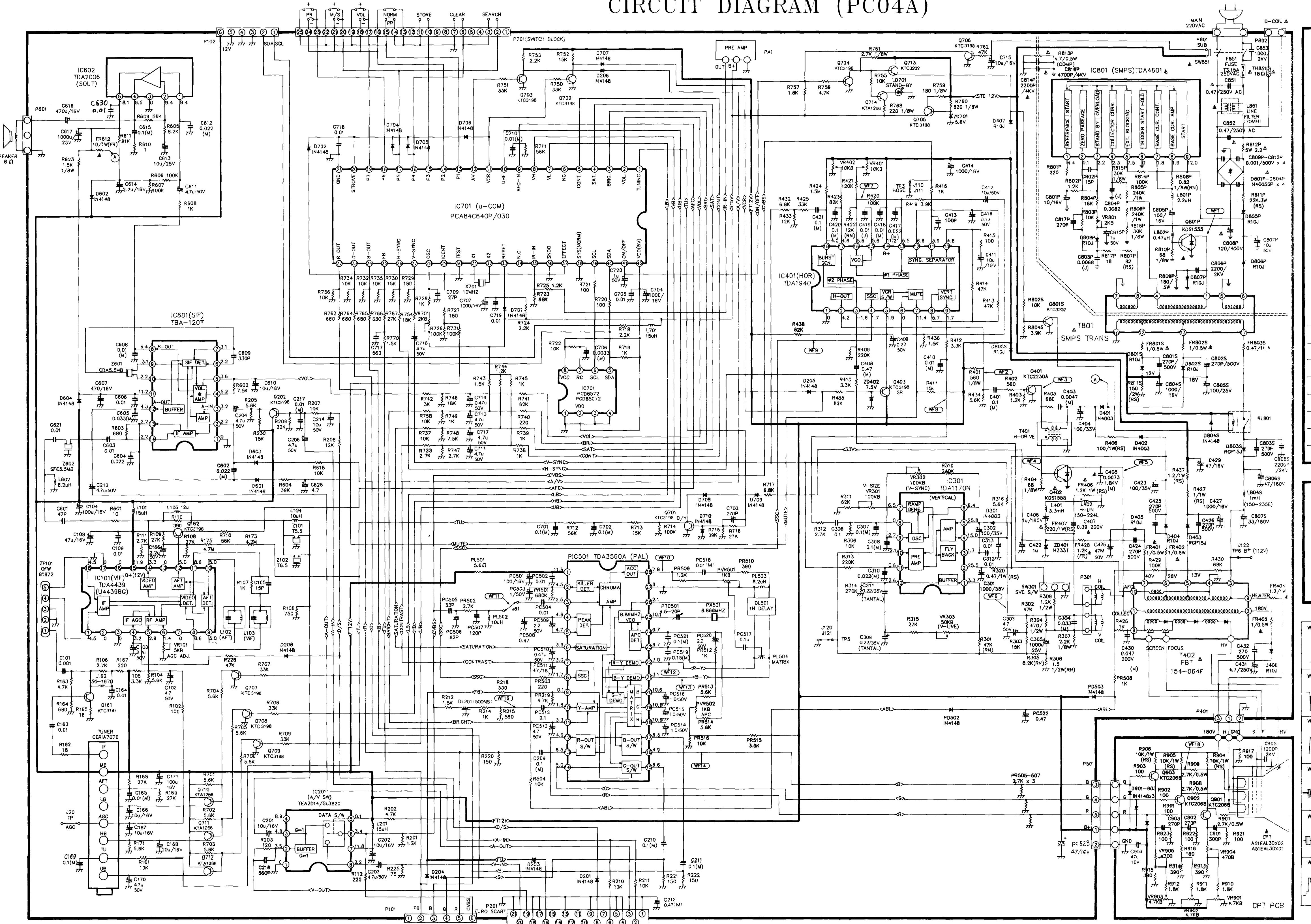
S	A1	LOCA,NO	PART NO(G)	DESCRIPTION	SPECIFICATION	REMARKS
	R921	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	R922	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	R923	ORD10006609	RESISTOR,FIXED CARBON FILM	100 1/4W 5 TA52		
	SW3701	140-111A	SWITCH	SVC P12T21		
	SW4551	140-278C	SWITCH	MAIN.MESC(TU-5)		
	TCl	181-169A	CAPACITOR	CAPACITOR TRIMMER 4.5P-20P		
	TH851	165-012A	Thermistor	PTC.PTH451A1C2BG180M290		
	T401	151-387A	TRANSFORMER	H.DRIVE		
	T402	154-064F	TRANSFORMER	FET	FCB(2)*664F-14SP3	
	T801	151-425A	TRANSFORMER	SMPX PC044 (FD1L)		
	UR101	ORD14720230	VARIABLE RESISTOR,CARBON FILM	4.7K 6 ST P3 L2.5 S		
	UR301	180-451L	RESISTOR	EUN-DJA003 B104 HORIZONTAL-TA		
	UR302	180-451L	RESISTOR	EUN-DJA003 B104 HORIZONTAL-TA		
	UR303	ORD11030230	VARIABLE RESISTOR,CARBON FILM	50K 6 ST P3 L2.5 S		
	UR401	ORD11030330	VARIABLE RESISTOR,CARBON FILM	10K 6 ST P3 L2.5 S		
	UR402	180-451H	RESISTOR	EUN-DJA003 B103 HORIZONTAL-TA		
	UR701	ORD12220330	VARIABLE RESISTOR,CARBON FILM	2.2K 6 ST P3 L2.5 S		
	UR801	180-451G	RESISTOR	EUN-DJA003 B502 HORIZONTAL-TA		
	UR901	ORD14720330	VARIABLE RESISTOR,CARBON FILM	4.7K 6 ST P3 L2.5 S		
	UR902	ORD14720330	VARIABLE RESISTOR,CARBON FILM	4.7K 6 ST P3 L2.5 S		
	UR903	ORD14720330	VARIABLE RESISTOR,CARBON FILM	4.7K 6 ST P3 L2.5 S		
	UR994	ORD14710330	VARIABLE RESISTOR,CARBON FILM	470 6 ST P3 L2.5 S		
	UR995	ORD14710330	VARIABLE RESISTOR,CARBON FILM	470 6 ST P3 L2.5 S		
	XX3	156-007C	OSCILLATOR	OCC-X-TAL 6.0MHZ		
	X1	156-007D	OSCILLATOR	OCC-X-TAL 13.875MHZ		
	X2	156-007C	OSCILLATOR	OCC-X-TAL 6.0MHZ		
	X701	156-007L	OSCILLATOR	X-TAL 10.000MHZ		
	ZD#80T	0025400094A	DIODE ZENER	M725.6B.TP(S2MM).ROHM		
	Z01	0025400094A	DIODE ZENER	M725.6B.TP(S2MM).ROHM		
	Z0401	002330009BA	DIODE ZENER	ZENER H2733 TAPING		
	Z0402	002750009BA	DIODE ZENER	M727.5B.TP(S2MM).ROHM		
	Z0701	002560009BA	DIODE ZENER	M725.6B.TP(S2MM).ROHM		
	Z0730	002560009BA	DIODE ZENER	M725.6B.TP(S2MM).ROHM		
	Zf101	166-250E	FILTER	SAW FILTER G1872		
	Z101	166-031B	FILTER	CERAMIC TPS 5.5MB		
	Z102	166-031E	FILTER	TPS 5.5MB		
	Z401	166-126B	FILTER	CDA 5.5MC24B		
	Z602	166-002D	FILTER	CERAMIC SFE 5.5MB		
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CIRCUIT DIAGRAM (PC04A) MAI

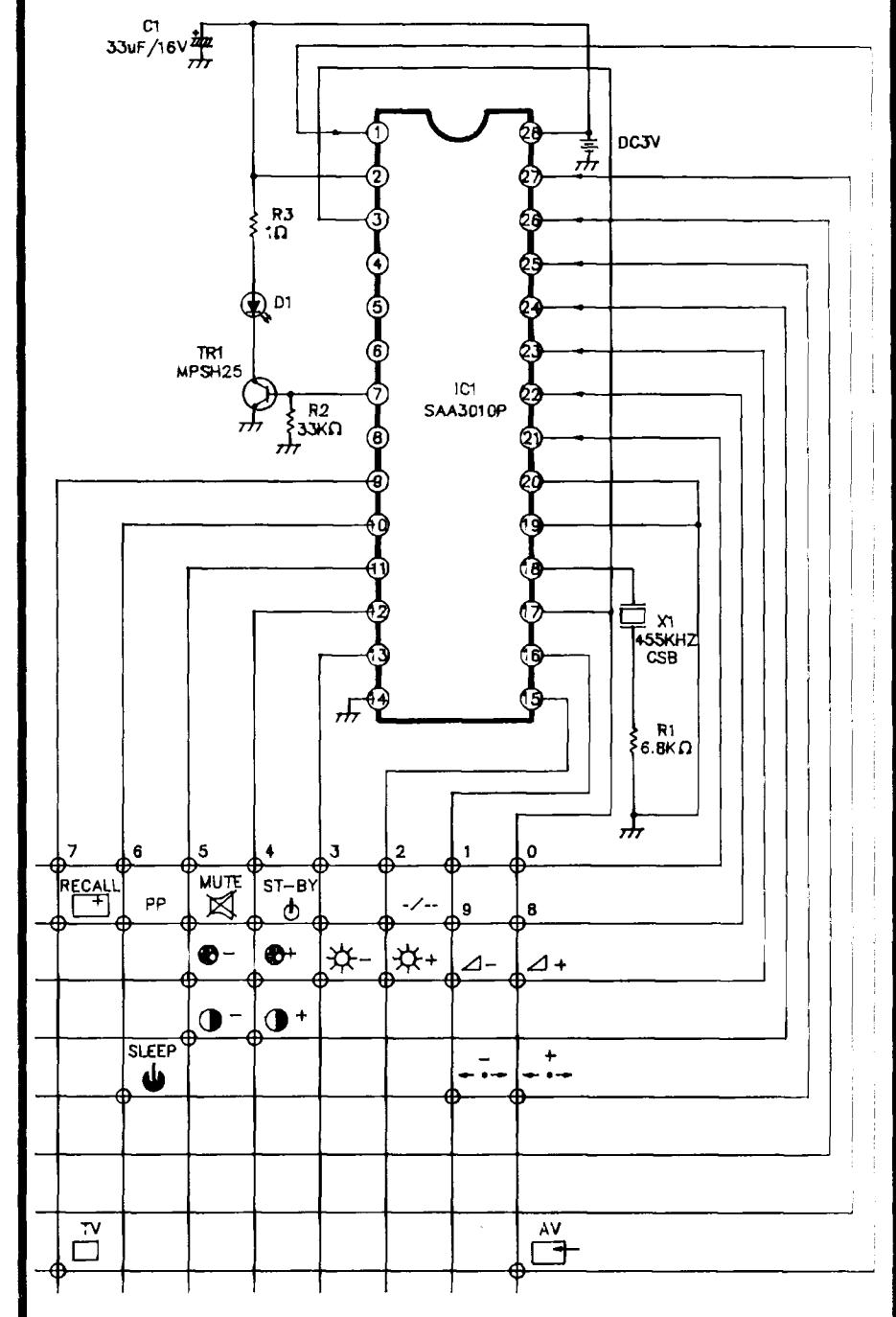


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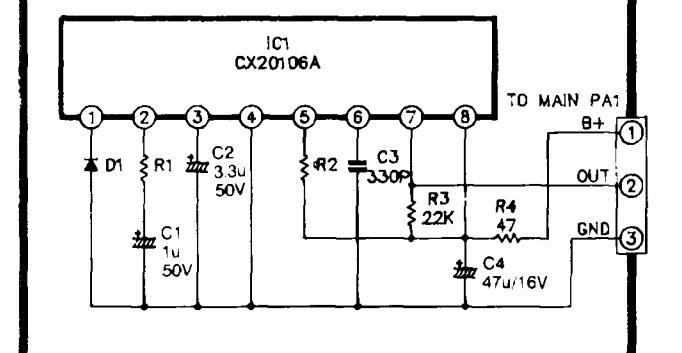
CIRCUIT DIAGRAM (PC04A)



TX SCHEMATIC DIAGRAM



PREF-AMP



OTICE
nce this is a basic circuit diagram.
e value of components and some partical connection
e subject to be changed for improvement.

The components marked **A** conform to VDE or IEC guidelines and are essential for safe operation of the set, while those marked **B** are required for correct operation. Use specified

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

- Resistances is shown in ohm, k=1,000, M=1,000,000.
Unless other wise noted in schematic, all capacitor values less
than 1 are expresses in mfd and the values more than 1 in pF.
Unless otherwise noted in schematic, all inductor values more
than 1 are expressed in uH, and the values less than 1 in H.

SERVATION OF VOLTAGES AND WAVEFORMS

- voltages read with VTVM from point shown to chassis ground, line voltages 180~270V volts, colour bar signal. Voltages reading may vary $\pm 20\%$. The schematic shown is representative only. All waveforms are taken using a wide band oscilloscope and a low capacity probe.

Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOUR controls for best picture, make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS controls is almost in maximum position.

Waveforms are taken using a standard colour bar signal.

