

Model 25PC3835KA01

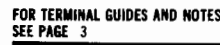
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See page 4.

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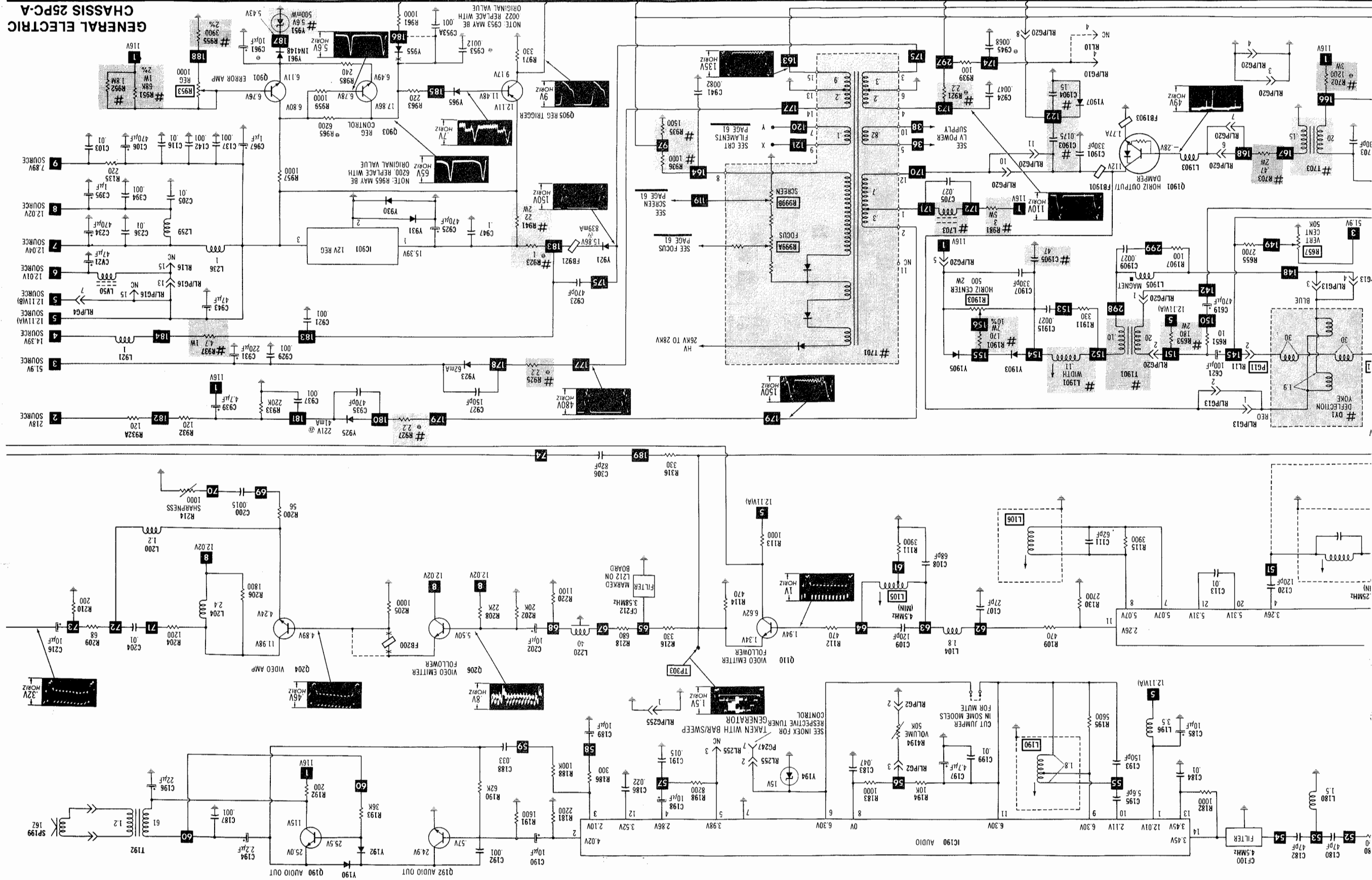
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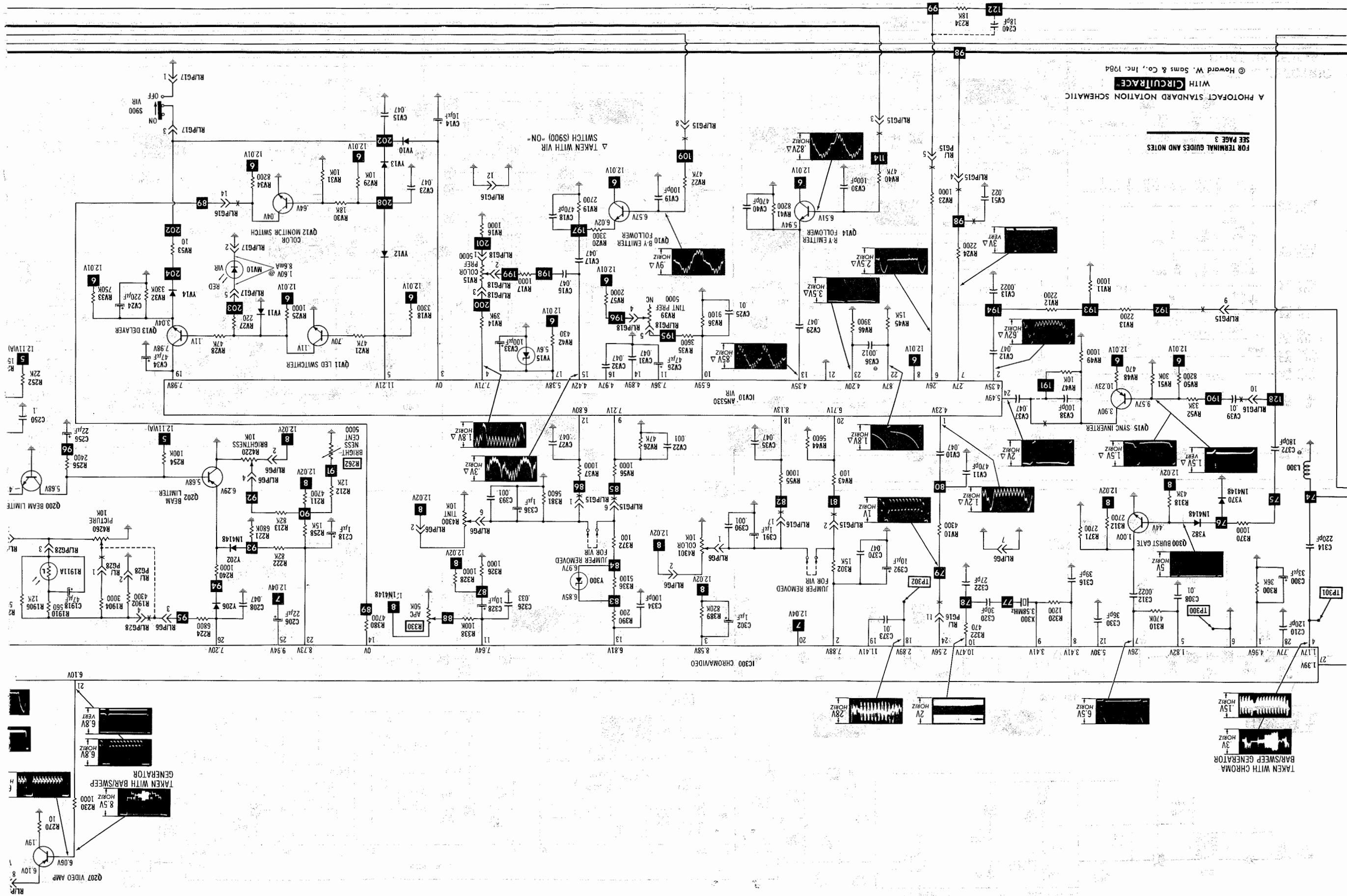


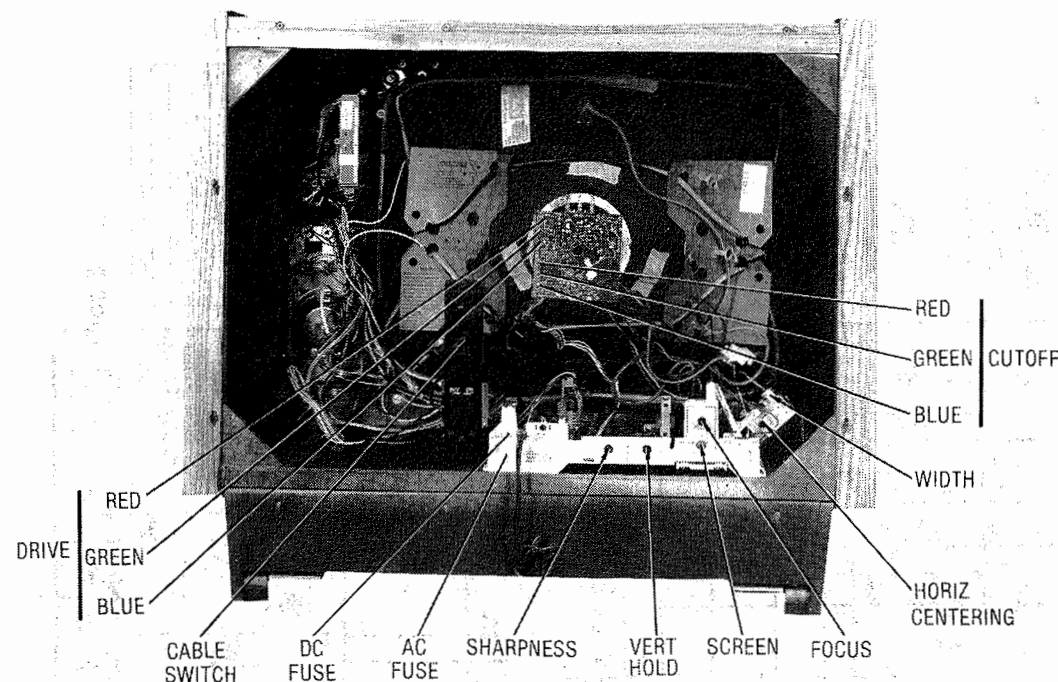


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GENERAL ELECTRIC
CHASSIS 25PC-A







CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove eight screws and release four latches holding cabinet back and remove back. Disconnect HV anode, CRT socket, deflection yoke connector, degaussing coil connector, speaker connectors and ground leads. Remove ten screws holding channel readout, tuning control and light sensor assemblies to cabinet front and remove assemblies from cabinet. Channel readout is now accessible for servicing.

Remove two screws holding main chassis to cabinet bottom and slide chassis out of cabinet.

CRT REMOVAL

Follow "Chassis Removal" procedure and lay set facedown on a soft protective surface. Loosen and remove CRT neck assemblies. Remove four nuts holding CRT to cabinet front and lift CRT out of cabinet. Do Not lift CRT by the neck.

SERVICING IN THE FIELD

CRT IMPLSION PROTECTION AND CLEANING

Implsion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A 1.5-amp fuse is used for low-voltage power-supply protection. (See photo, Cabinet-Rear View.)

A 4-amp fuse is used for AC line protection. (See photo, Cabinet-Rear View.)

CHANNEL READOUT ACCESSIBILITY

Tuning assembly must be removed. See Disassembly Instructions.

VHF/UHF TUNER

Ten selector buttons and a ENTER button are provided for one or two digit entry channel selection. Fine tuning is automatic.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accom-

plished by the proper setting of the Horiz Hold Control (See Placement Chart.)

WIDTH

The width may be varied by adjusting the width coil. (See photo, Cabinet-Rear View.)

FOCUS

The focus may be varied by a focus control. (See photo, Cabinet-Rear View.)

AGC

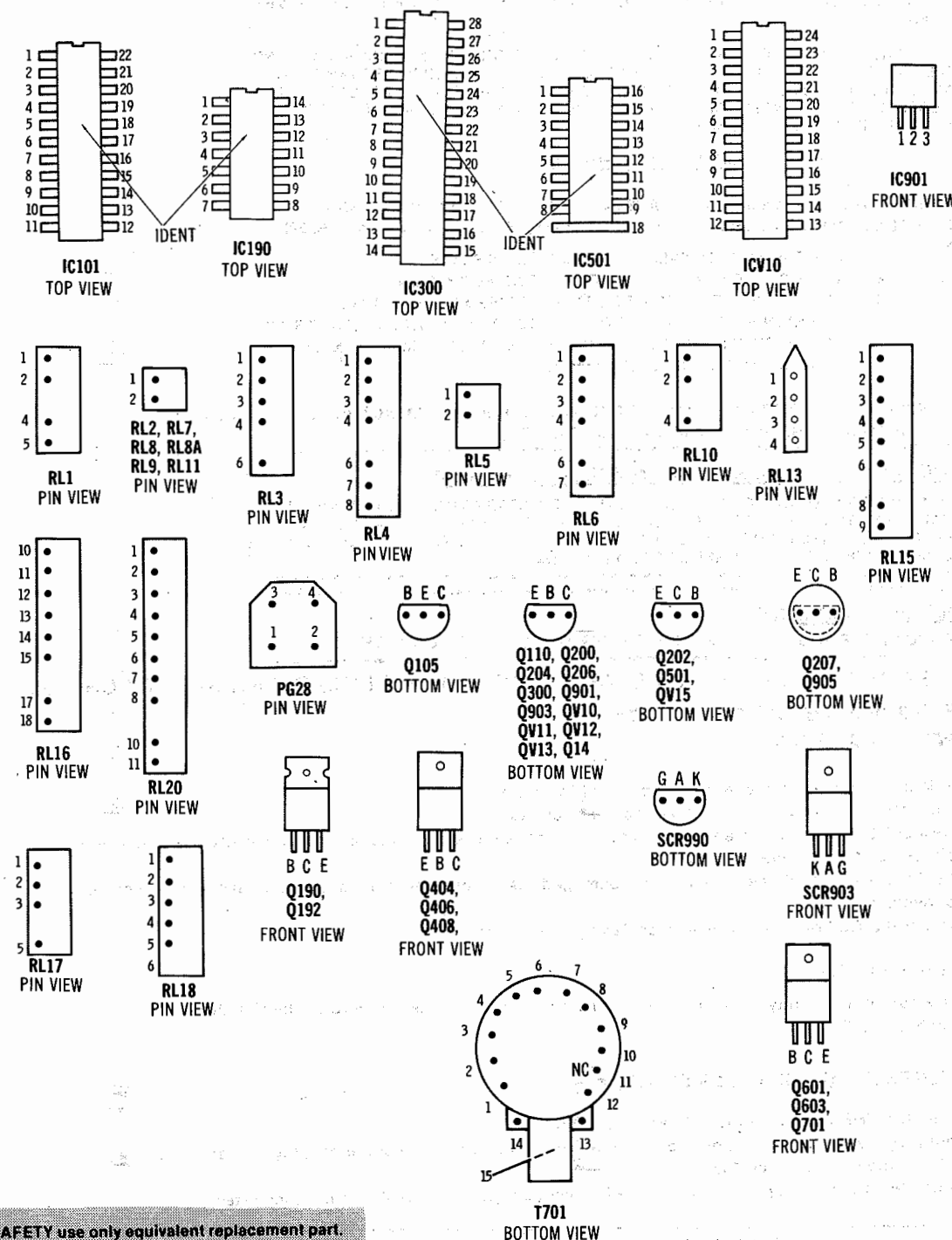
The AGC may be varied by the IF AGC and RF AGC controls. (See Placement Chart.)

CENTERING

Horizontal centering is accomplished by proper adjustment of the horizontal centering control. (See photo, Cabinet-Rear View.)

Vertical centering is accomplished by proper adjustment of the vertical centering control. (See Placement Chart.)

TERMINAL GUIDES



For SAFETY use only equivalent replacement part.

— Circuitry not used in some versions

--- Circuitry used in some versions

• See parts list

⊕ Ground

Waveforms: triggered scope, keyed rainbow generator

Item numbers in rectangles appear in the alignment/adjustment instructions.

Supply voltage maintained as shown at input.

Voltages measured with digital meter, no signal.

Controls adjusted for normal operation.

Terminal identification may not be found on unit.

Resistors are 1/2W or less, 5% unless noted.

Value in () used in some versions.

SAFETY PRECAUTIONS

THIS RECEIVER USES A LINE-CONNECTED BRIDGE RECTIFIER. THE CHASSIS IS NOT DIRECTLY CONNECTED TO GROUND. INSTEAD, IT IS ELEVATED 70VAC ABOVE EARTH GROUND. THEREFORE, THERE IS ALWAYS A HAZARDOUS VOLTAGE BETWEEN THE CHASSIS AND EARTH GROUND. ALWAYS USE AN ISOLATION TRANSFORMER TO POWER THE RECEIVER WHEN SERVICING.

SHATTER-PROOF SAFETY GLASSES SHOULD ALWAYS BE WORN WHEN WORKING AROUND AN EXPOSED PICTURE TUBE. BEFORE HANDLING THE TUBE, THOROUGHLY DISCHARGE THE SECOND ANODE TO THE OUTER AQUADAG COATING OF THE PICTURE TUBE. REPLACEMENT PICTURE TUBES MUST HAVE INTEGRAL X-RAY AND IMPLSION PROTECTION. REPLACE ONLY WITH TUBE OF SAME TYPE NUMBER.

CAUTION: X-RAYS

AS PRECAUTIONS AGAINST EMISSION OF X-RAYS IN EXCESS OF THE FEDERAL STANDARD, NEVER APPLY POWER TO THE RECEIVER UNTIL THE FOLLOWING CONDITIONS HAVE BEEN VERIFIED.

1. ALL FACTORY-INSTALLED SHIELDS ARE IN PLACE.
2. THE PICTURE TUBE IS A FACTORY SPECIFIED TYPE ONLY.
3. THE LINE INPUT VOLTAGE DOES NOT EXCEED 130 VOLTS AC.
4. THE HIGH VOLTAGE DOES NOT EXCEED 29.0KV WITH BRIGHTNESS AND CONTRAST CONTROLS AT MINIMUM (MINIMUM ILLUMINATION ON PICTURE TUBE SCREEN) AT 120 VAC.

NORMAL HIGH VOLTAGE IS 26.8KV AT ZERO BEAM CURRENT (BLACK PICTURE) WITH 120 VAC LINE INPUT. HIGH VOLTAGE IS NOT ADJUSTABLE.

"CAUTION - HIGH VOLTAGE SHUT DOWN MODULE REPLACEMENT

TO PROVIDE PROPER X-RADIATION PROTECTION IT IS NECESSARY THAT ALL COMPONENTS IN THE HVSD BE MATCHED AND TESTED AS A COMPLETE UNIT. NO INDIVIDUAL COMPONENT CAN BE SAFELY REPAIRED OR REPLACED. THEREFORE, IF A MALFUNCTION IS SUSPECTED, REPLACE ONLY WITH ENTIRE UNIT REPL. PART # EP62X154."

116 VOLT B+ ADJUSTMENT

THE SETTING OF THE +116 VOLT ADJUSTMENT (R953) DIRECTLY AFFECTS HIGH VOLTAGE.

AFTER SERVICING THE RECEIVER, PERFORM THE FOLLOWING SAFETY CHECK:

BEFORE INSTALLING THE CABINET BACK:

INSPECT LEAD DRESS:

1. No lead should be against a power resistor (2 watts or more).
2. High voltage connections must have no sharp points.
3. The insulation on antenna leads should not be damaged. The leads should not be dressed close to any high voltage point or AC line connection.
4. The AC wiring should be inspected for damaged insulation, frayed wires, pinched leads, or cold solder connections.
5. Inspect the AC line cord for broken or damaged insulation.

MAKE RESISTANCE CHECK:

1. Check for DC continuity (0 ohms) from the narrow blade of the power cord to the ON/OFF switch in the ON position.

AFTER INSTALLING THE CABINET BACK:

- A. Connect the VHF antenna to the VHF antenna terminals.
- B. Do not plug the receiver into a power outlet. Connect both blades of the power plug together and place the ON-OFF switch in the ON position.
- C. Measure between the shorted power plug and the following points. Readings should be as indicated.

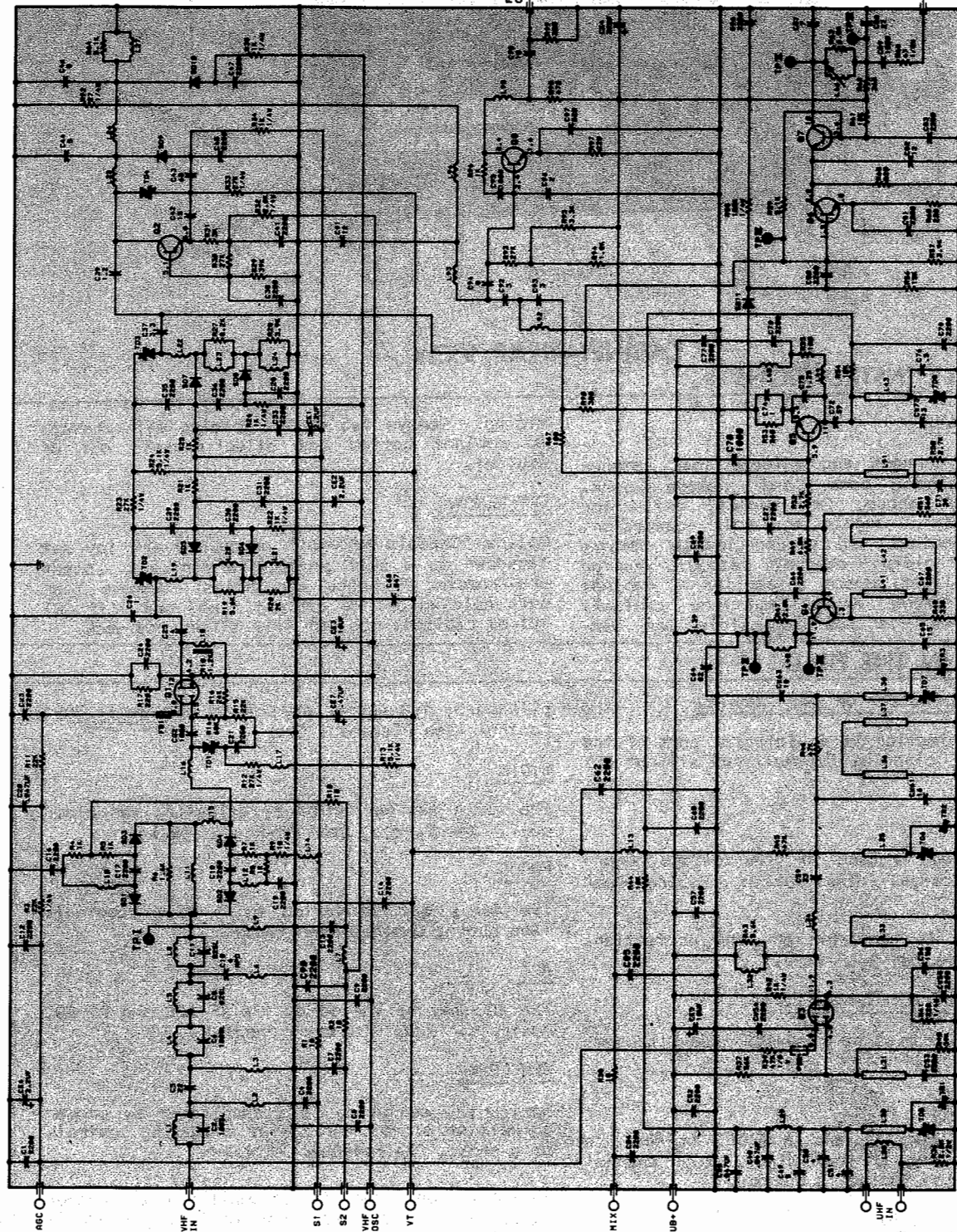
| TEST POINT | MIN. OHMS | MAX. OHMS |
|----------------------------------------------------------------------|--------------|-----------|
| ANTENNA TERMINALS - UHF | 600K | 5.2 MEGS |
| ANTENNA TERMINALS - VHF | 600K | 5.2 MEGS |
| CABINET BACK SCREWS | OPEN CIRCUIT | |
| ALL METAL CONTROL OR CHANNEL SELECTOR SHAFTS (WITH KNOBS REMOVED) | OPEN CIRCUIT | |
| ALL NON-REMOVABLE METALLIC KNOBS, PUSH BUTTONS, EARPHONE JACKS, ETC. | OPEN CIRCUIT | |
| METAL ESCUTCHEONS AND OVERLAYS | OPEN CIRCUIT | |

IF ANY READING IS OUTSIDE LIMITS SPECIFIED, THE CAUSE SHOULD BE IDENTIFIED AND CORRECTED BEFORE OPERATING THE RECEIVER.

Courtesy of the Manufacturer

EP93X415

NOTES:
1. ALL CAPACITANCE VALUES ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
2. 2W = 2.0 WATT CAP.
3. 2W = 2.0 WATT CAP.
4. ALL RESISTANCE VALUES ARE IN OHMS, UNLESS OTHERWISE SPECIFIED.
5. VIDEO IF = 45.75 MHz
6. AUDIO IF = 4.5 MHz
7. INPUT IMPEDANCE: 75 OHMS
8. OUTPUT IMPEDANCE: 75 OHMS
9. FOR ALL VOLTAGE MEASUREMENTS USE A HIGH IMPEDANCE VOLTMETER (10 M OHMS OR MORE).



Courtesy of the Manufacturer

UHF/VHF TUNER

112 CH. CHIP TUNER SCHEMATIC DIAGRAM

NOTE: FOR REPAIRS REQUIRING PARTS, ORDER A REPLACEMENT TUNER.

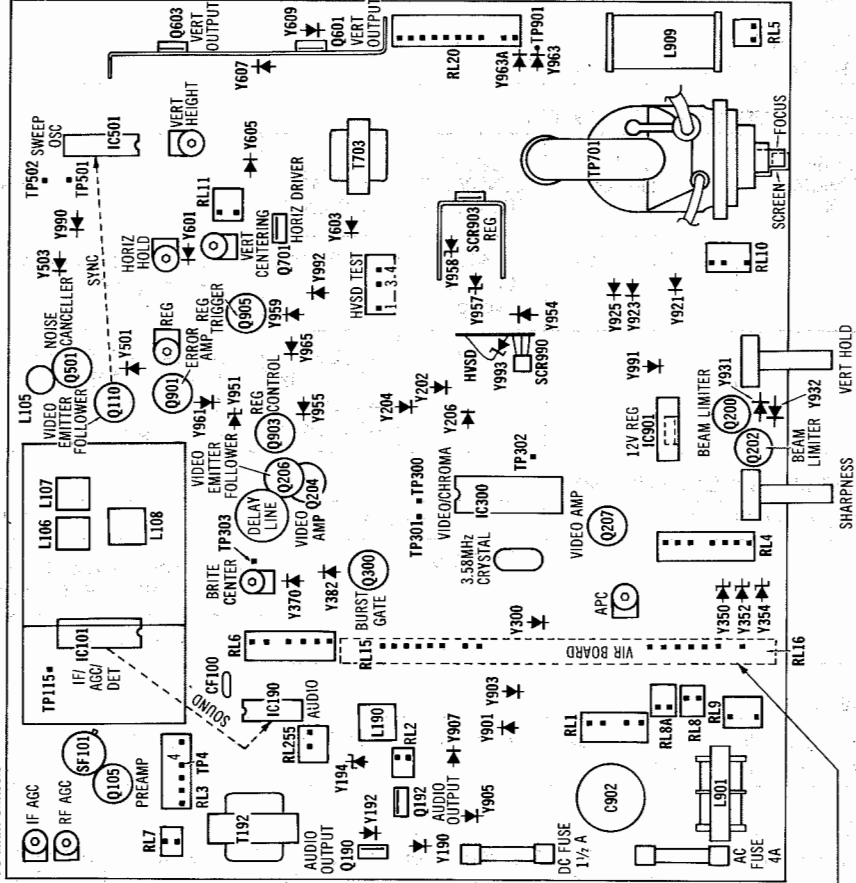
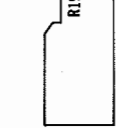
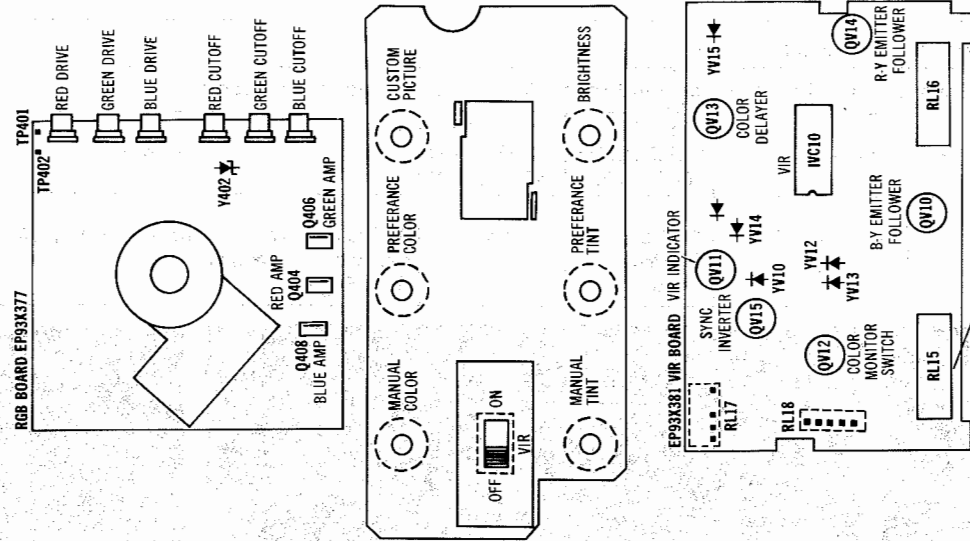
GENERAL ELECTRIC
CHASSIS 25PC-A

FOLDER 2

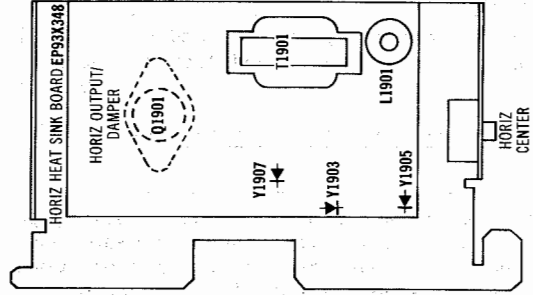
RESISTANCE MEASUREMENTS

| MEASUREMENTS TAKEN WITH LOW POWER OHMS METER | | | | | | | | | | | | | | |
|----------------------------------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|-----------|-----------|-----------|--------|
| ITEM | PIN 1 | PIN 2 | PIN 3 | PIN 4 | PIN 5 | PIN 6 | PIN 7 | PIN 8 | PIN 9 | PIN 10 | PIN 11 | PIN 12 | PIN 13 | PIN 14 |
| IC101 | 417 | 417 | 0 | INF | 642 | 5730 | 1208 | 1208 | 5730 | 60K | 1664 | 1138 | 91 | 0 |
| | | | | | | | PIN 15 | PIN 16 | PIN 17 | PIN 18 | PIN 19 | PIN 20 | PIN 21 | PIN 22 |
| | | | | | | | 470K | 1773 | 9100 | 8220 | 8250 | 6950 | 6910 | 200 |
| IC190 | 94 | 1830 | 8430 | INF | 10K | 10K | 0 | 993 | 10K | 1210 | 10K | 10K | 6950 | 7940 |
| IC300 | 36K | 18K | 840K | 5530 | INF | 0 | INF | 15K | 14K | 7440 | 12K | 12K | 15K | 13K |
| | PIN 15 | PIN 16 | PIN 17 | PIN 18 | PIN 19 | PIN 20 | PIN 21 | PIN 22 | PIN 23 | PIN 24 | PIN 25 | PIN 26 | PIN 27 | PIN 28 |
| | 2570 | 3600 | 2570 | 7380 | 13K | 91 | INF | 526 | 18K | 6640 | INF | 4550 | 13K | 850 |
| IC501 | 802 | 2390 | INF | 20K | 302 | 3110 | 40K | 3030 | 63K | 126K | 1.7M(1) | 80K | 18K | 6600 |
| | | | | | | | | | | | PIN 15 | PIN 16 | PIN 17 | PIN 18 |
| | | | | | | | | | | INF | 0 | 15K | 0 | |
| IC901 | 112 | 0 | 91 | | | | | | | | | | | |
| ICV10 | INF | INF | 14K | 4630 | 3390 | 6350 | 3390 | 92 | 17K | 4200 | INF | 2500 | INF | INF |
| | | | | | PIN 15 | PIN 16 | PIN 17 | PIN 18 | PIN 19 | PIN 20 | PIN 21 | PIN 22 | PIN 23 | PIN 24 |
| | | | | | INF | INF | 498 | 3160 | INF | 3620 | 0 | 15K | 3880 | 10K |
| V6001 | 120M | NC | NC | NC | 0 | 135K | 4.5M | 135K | FIL | FIL | 135K | NC | | |
| ITEM | E | B | C | | ITEM | E | B | C | | ITEM | E | B | C | |
| Q105 | 33 | 1185 | 300 | | Q404 | 500 | 3210 | 145K | | Q1901 | 0 | 1 | 12K | |
| Q110 | 385 | 2220 | 809 | | Q406 | 494 | 3210 | 140K | | QV10 | 6000 | 47K | 92 | |
| Q190 | 64K | 47K | 12K | | Q408 | 506 | 3210 | 140K | | QV11 | 0 | 51K | 1077 | |
| Q192 | 0 | 1600 | INF | | Q501 | 361 | 2780 | 766 | | QV12 | 0 | 7420 | 8330 | |
| Q200 | 2870 | 0 | 107K | | Q601 | 13K | 1.7M(1) | 13K | | QV13 | 242K | 47K | INF | |
| Q202 | INF(1) | 107K | 0 | | Q603 | 0 | 751 | 13K | | QV14 | 8200 | 47K | 92 | |
| Q204 | 267 | 1000 | 93 | | Q701 | 0 | INF | 13K | | QV15 | 554 | 6770 | 1000 | |
| Q206 | 1000 | 11K | 91 | | Q901 | INF | 3910 | 1078 | | SCR903 | K 92K | G 92K | A 1 | |
| Q207 | 358 | INF | 10 | | Q903 | INF | 2090 | 11K | | SCR990 | K 4860 | G 6050 | A 6600 | |
| Q300 | 0 | 44K | 1405 | | Q905 | 90 | 1.5M(1) | 330 | | | | | | |

(1) Reading depends on polarity of meter connections.



TOP VIEW



PLACEMENT CHART

GENERAL ELECTRIC
CHASSIS 25PC-A

FOLDER 2

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.
Suggested Alignment Tools: GC ELECTRONICS
L105 thru L108, L190.....9296, 9297, 9300

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication.
Note: Response may vary slightly from that shown.

Disconnect Plug PG7.
Connect a +4.00V to +4.80V bias to TP115.

VIDEO IF ALIGNMENT (SWEEP MARKER GENERATOR)

| DIRECT PROBE FROM SWEEP/MARKER GENERATOR | SWEEP GENERATOR OUTPUT | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | REMARKS |
|------------------------------------------|------------------------|---------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------|
| To TP303 | To Plug RL7 | 44MHz (10MHz Sweep) | 41.25MHz | Adjust L108 (Top) for MINIMUM. See Figure 1. |
| " | " | " | 41.25MHz 42.17MHz 44.00MHz 45.75MHz | Adjust L106 for Maximum 45.75MHz. Adjust L108 (bottom) for Maximum 44.00MHz. See Figure 2. |

VIDEO IF ALIGNMENT (BAR SWEEP GENERATOR)

| BAR SWEEP GENERATOR | SCOPE INPUT | REMARKS |
|---------------------|-------------|-------------------------------------------------------------------------------------------|
| To RL7 | To TP303 | Perform Video IF Adjustments per SWEEP/MARKER GENERATOR instructions above. See Figure 3. |

4.5MHz TRAP ALIGNMENT

Tune in a strong TV signal and set the contrast at Maximum. Adjust L105 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust L190 for Maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting L190.

AUTOMATIC FINE TUNING ALIGNMENT

Connect as explained in preliminary instructions unless specified otherwise.

| DIRECT PROBE FROM SWEEP/MARKER GENERATOR | SWEEP GENERATOR OUTPUT | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | REMARKS |
|------------------------------------------|------------------------|---------------------------|----------------------------|------------------------------------------------------------------|
| To TP4 | To Plug RL7 | 44MHz (10MHz Sweep) | 45.75MHz | Adjust T107 to place the 45.75MHz marker as shown. See Figure 4. |

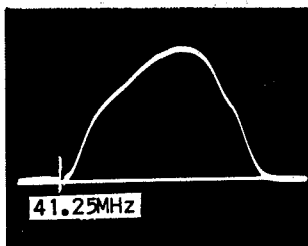


Figure 1

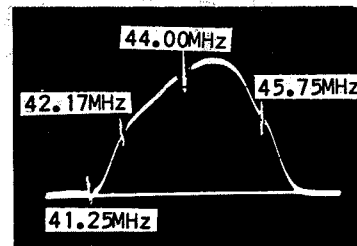


Figure 2

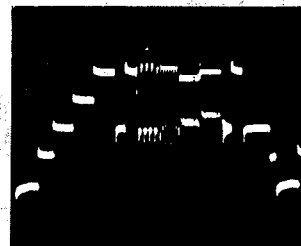


Figure 3

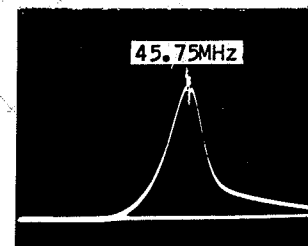


Figure 4

CIRCUIT DESCRIPTION (Continued)

and Y958 conduct to provide a starting current to the gate of SCR903 to start it conducting. After the power supply has started, Zener Diodes Y957 and Y958 are biased off and are no longer used. The control circuit, consisting of Error Amp Transistor (Q901) and Regulator Control Transistor (Q903), controls the action of SCR903. The 116V Source is monitored through a resistor network by Diodes Y961 and Y951 providing a 6.11V reference voltage for the emitter of Transistor Q901. A voltage change on the base of Transistor Q901 causes it to conduct either more or less, which in turn controls the conduction of Transistor Q903. Transistor Q903 controls the discharge rate of Capacitor C953 which is charged by the horizontal pulse through Resistors R921 and R961 from pin 4 of the Horizontal Output Transformer (T701). While Capacitor C953 is being charged, a negative going retrace pulse from T701 winding (pins 5 and 10) is applied to the anode of SCR903 to switch it Off. The Regulator Trigger Transistor (Q905) is turned Off by the charge on Capacitor C953. When Capacitor C953 is discharged by Transistor Q903, Transistor Q905 conducts to provide a pulse through Capacitor C955 and Resistor R969 to the gate of SCR903, causing it to conduct. While SCR903 is in the Off state the energy stored in Coil L909 produces a voltage that forward biases Diodes Y963 and Y963A and provides a current to keep C904 charged. This helps keep the 116V line at MINIMUM ripple while SCR903 is Off.

HIGH VOLTAGE SHUTDOWN CIRCUIT DESCRIPTION

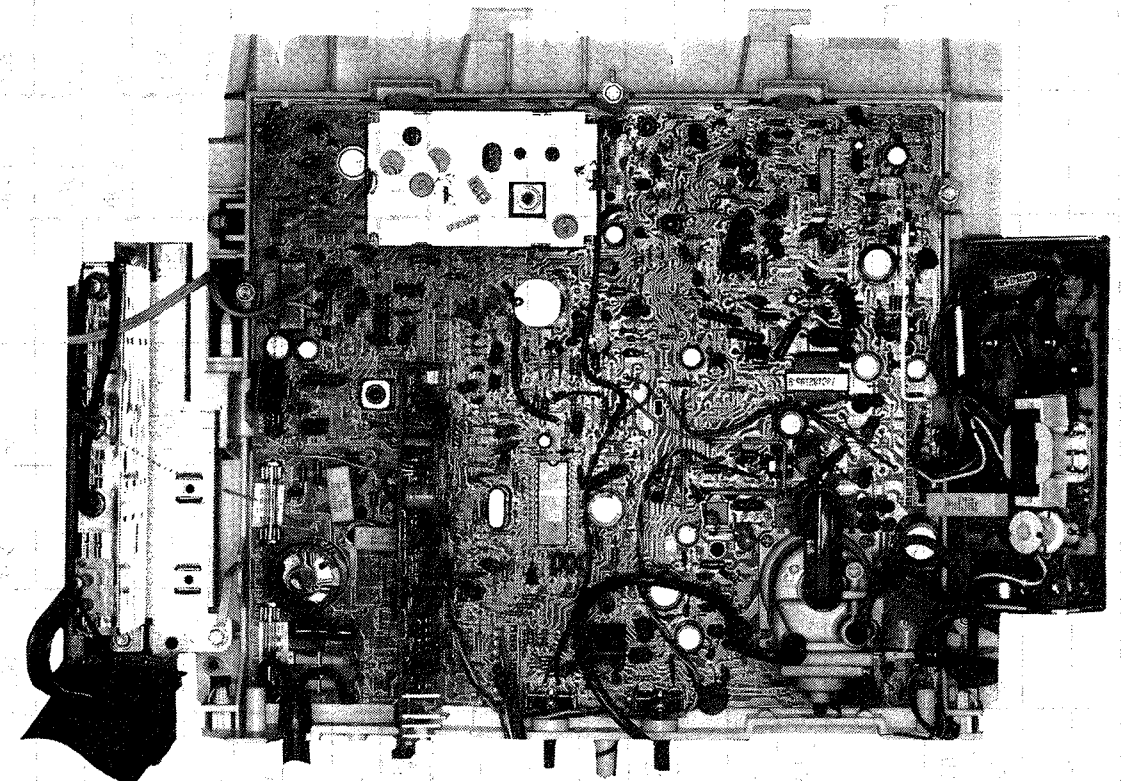
The high voltage is monitored by taking the

horizontal pulses at pin 15 of the Horizontal Output Transformer (T701), rectifying it with Diode Y992 and applying the DC voltage to a voltage divider consisting of Resistors R991, R992 and R995. The voltage from the voltage divider is applied to Zener Diode Y993 which is connected to the gate of Shutdown SCR (SCR990). If the high voltage becomes excessive the voltage applied to Zener Diode Y993 will also increase and cause it to conduct and turn on SCR990. When SCR990 turns On it shorts the B+ supply at pin 14 of the Sweep Oscillator IC (IC501) to ground through Diode Y991. This shuts down the horizontal sweep circuits to shutdown the TV. SCR990 is kept On by current flowing from the 116V Source through Resistor R503. The TV must be turned Off for about 10 seconds to enable the circuit to reset.

HIGH VOLTAGE SHUTDOWN DEFEAT

To defeat the High Voltage Shutdown circuit, unsolder one end of Diode Y991. If this does not defeat the shutdown, check the Sweep Oscillator IC (IC501) and the components connected to pin 14 of IC501.

IMPORTANT NOTE: Care should be taken in defeating the HV Shutdown circuit, because this may cause excessive high voltage and damage to the high voltage transformer, CRT or other circuits supplied B+ from the high voltage transformer. Monitor the high voltage, if it exceeds 29KV, do not defeat the shutdown circuit. Use an isolation transformer for AC power supply with stepdown control to troubleshoot a set with excessive high voltage.



CHASSIS-TOP VIEW

TROUBLESHOOTING (Continued)

AGC VOLTAGE CHART

NOTE: Voltages taken using a Keyed-Rainbow Generator.

| ITEM | PIN 15 | PIN 17 |
|-------|--------|--------|
| IC101 | 4.86V | 2.83V |

AUDIO

Inject an audio signal at pin 2 of the Audio IC (IC190). If there is no audio from the speaker, check the voltages and components associated with the Audio Output Transistors (Q190 and Q192) and check the Speaker. If there is audio from the speaker, inject a sound IF signal at pin 5 of the IF/AGC/DET IC (IC101). If there is no audio from the speaker, check the voltages and components associated with IC190. If there is audio from the speaker, check the voltages and components associated with pins 1, 2 and 5 of IC101.

VIDEO

Check the voltages and waveforms on the CRT and check the CRT. Check the voltage and waveforms on the Color Amp Trnasistors (Q404, Q406 and Q408). To determine which stage is defective, inject a video signal to the base of Video Amp Transistor (Q207), pin 27 of Chroma/Video IC (IC300), the base of Video Amp Transistor (Q204), Video Emitter Follower Transistor (Q206), or Video Emitter Follower Transistor (Q110). The stage immediately following the loss of information is the defective stage. Also check voltages on the Beam Limiter Transistors (Q200 and Q202) and check for proper vertical and horizontal blanking pulses at pin 22 of IC300. If any of the waveforms are not correct, check the voltages and circuitry associated with the defective stage.

SYNC

Check the waveforms on pins 9 and 10 of the Sweep Oscillator IC (IC501). If these waveforms are not correct, check the circuitry connected to pins 9 and 10 of IC501. Also check the voltages of Noise Canceller Transistor (Q501). Check for the proper vertical sync pulses at pin 7 of IC501, and for the proper horizontal waveforms at pins 11, 12 and 13 of IC501. If any waveforms are incorrect, check the voltages and associated components of that circuit.

VERTICAL

Inject a vertical signal at the base of the Vertical Output Transistor (Q603). If the vertical deflection returns, check the voltages, waveforms and associated components on pins 1 thru 8 and 17 of the Sweep Oscillator IC (IC501). If the vertical deflection does not return, check the voltages and waveforms on the Vertical Output Transistors (Q601 and Q603). Also check the Deflection Yoke (DY1) and Plug PG11. Vertical linearity or foldover problems can be caused by vertical feedback or bias circuits. Check Diodes Y603, Y605, Y607 and Y609 and check the condition of Electrolytics C603, C623, C614, C615, C619 and C621. Use the "Resistance Measurements" Chart to

check for possible changes in feedback and bias circuitry resistance.

CHROMA

Check for 12.04V at pin 20 of the Chroma/Video IC (IC300) and the VIR Board (Plug RL16, pin 13). If 12.04V is not present, check the waveform and voltages at Diode Y921, 12V Regulator IC (IC901) and associated components. If there is no color or abnormal color, check the voltages and waveforms on the B-Y Emitter Follower Transistor (QV10), LED Switcher Transistor (QV11), Color Monitor Switch Transistor (QV12), Delayer Transistor (QV13), R-Y Emitter Follower Transistor (QV14), Sync Inverter Transistor (QV15), VIR IC (ICV10) and associated components. Check the voltages and waveforms on pins 1 thru 19 on IC300 and the frequency of the 3.58MHz Oscillator at pin 10 of IC300. If there is no color sync or incorrect hue, check the 3.58MHz Oscillator at pins 8, 9 and 10 of IC300 and for the proper horizontal keying pulse at pin 7. If there is no horizontal keying pulse, check voltages on the Burst Gate Transistor (Q300) and associated circuits. See the "Chroma Voltage Chart" for voltages that change with signal.

CHROMA VOLTAGE CHART

NOTE: Voltages measured using a Keyed-Rainbow Generator.

| ITEM | PIN 1 | PIN 3 | PIN 26 |
|-------|-------|-------|--------|
| IC300 | 4.56V | 6.80V | 9.42V |

RASTER

Check the CRT and CRT voltages. If the raster is magenta, check the voltages and waveforms on pin 15 of the Chroma/Video IC (IC300). Also check Green Amp Transistor (Q406) and Zener Diodes Y354 and Y402. If the raster is yellow, check the voltages and waveforms on pin 17 of IC300. Also check Blue Amp Transistor (Q400) and check Zener Diode Y350. If the raster is cyan, check the voltages and waveforms on pin 16 of IC300. Also check Red Amp Transistor (Q404) and Zener Diode Y352. If the raster has a keystone shape, check Deflection Yoke (DY1). If the raster is pulled in at the top and bottom, check the vertical sweep circuits (See the "Vertical" section of this Troubleshooting guide). If the raster is pulled in at the sides, check the horizontal sweep circuits (See the "Horizontal" section of this Troubleshooting guide).

CIRCUIT DESCRIPTION

POWER SUPPLY CIRCUIT DESCRIPTION

When the TV is turned On, 120V AC is applied to the Bridge Rectifier Diodes (Y901, Y903, Y905, Y907) which provides the primary DC voltage to operate the TV. The Regulator SCR (SCR903) is in the Off state when the TV is first turned On. Electrolytic C902 is charged by Diodes Y901, Y903, Y905, Y907 and the voltage across Capacitor C902 is applied to a series network consisting of C904, R973, Y957, Y958 and SCR903. Start-up Zener Diodes Y957

MISCELLANEOUS ADJUSTMENTS

GRAY SCALE AND BRIGHTNESS RANGE ADJUSTMENT

Tune in a picture. Set Brightness, Picture, Color, Red Cutoff (R474), Blue Cutoff (R478), Green Cutoff (R476) Controls and Screen Control (R999B) fully counterclockwise. Set Red Drive (R444), Green Drive (R446) and Blue Drive (R448) Controls fully clockwise. Set Brightness Center Control (R262) fully clockwise. Place VIR Switch to Off. Place black tape over light sensor (not on all models). Disconnect the Vertical Yoke Plug (PG11). Place jumper between TP1 and TP2. (See Green Amp Transistor, Q406). Adjust Screen Control (R999B) clockwise until a line just appears and then counterclockwise until it just disappears. Remove jumper between TP1 and TP2. Turn Brightness Center Control counterclockwise until a color line appears on the screen. Adjust the Red, Green and Blue Cutoff Controls until each just produces a dim line. Reconnect Vertical Yoke Plug (PG11). Adjust Picture and Brightness Center Controls for a normal picture. Adjust the Drive Control of the predominate color for best gray scale in the high brightness areas. Readjust Cutoff Controls for low brightness areas. Turn Brightness Control fully clockwise and Picture Control fully counterclockwise. Turn Brightness Center Control so that black areas in the picture are slightly gray.

HORIZONTAL HOLD ADJUSTMENT

Adjust Horizontal Hold Control (R505) until the picture locks in. For a more accurate adjustment, connect a short jumper from TP501 to TP502. Adjust Horizontal Hold Control until picture stops or slowly floats across the screen. Remove jumper from TP501 and TP502.

HIGH VOLTAGE CHECK

Connect a high voltage meter to the CRT anode. Tune in a picture and then set Brightness Control to MINIMUM. The high voltage should measure between 26.0 and 28.0KV. The B+ Adjustment affects high voltage. If necessary, adjust B+ for 116V. See B+ Regulator Adjustment.

HORIZONTAL AND VERTICAL CENTERING

Adjust Horizontal Centering Control (R1903) for best horizontal centering. Adjust Vertical Centering Control (R657) for best vertical centering.

CONVERGENCE ADJUSTMENT

Connect a crosshatch generator to the antenna terminals and tune in a crosshatch pattern. Adjust the 4-Pole Magnets to converge the Red and Blue horizontal and vertical lines. Adjust the 6-Pole Magnets to converge the Red, Blue and Green vertical and horizontal lines. Tilt the deflection yoke vertically to converge the top and bottom of the screen and to converge the horizontal center line at the right and left sides of the screen. Position the yoke wedges at the top and bottom of the yoke. Tilt the deflection yoke to the right or left to converge the horizontal lines at the top and bottom of the screen and to

converge the vertical lines at the right and left sides of the screen. Position the yoke wedges at the right and left sides of the yoke. Repeat procedure if necessary.

B+ REGULATOR ADJUSTMENT

Connect the high side of a DC meter to TP901, low side to ground. Adjust Regulator Control (R953) to obtain 116V \pm 5V.

APC ADJUSTMENT

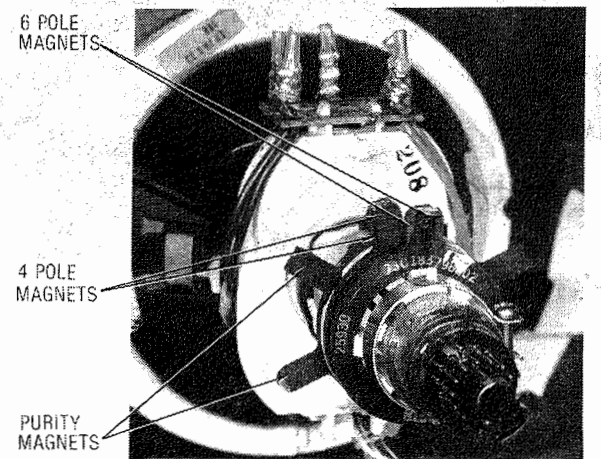
Connect a color bar generator to the antenna terminals and tune in a color bar pattern. Connect an .01uF capacitor from TP300 to TP301. Connect an .01uF capacitor from TP302 to TP303. Adjust APC Control (R330) until colors stop or slowly float across the screen. Remove the .01uF capacitors.

AGC ADJUSTMENT

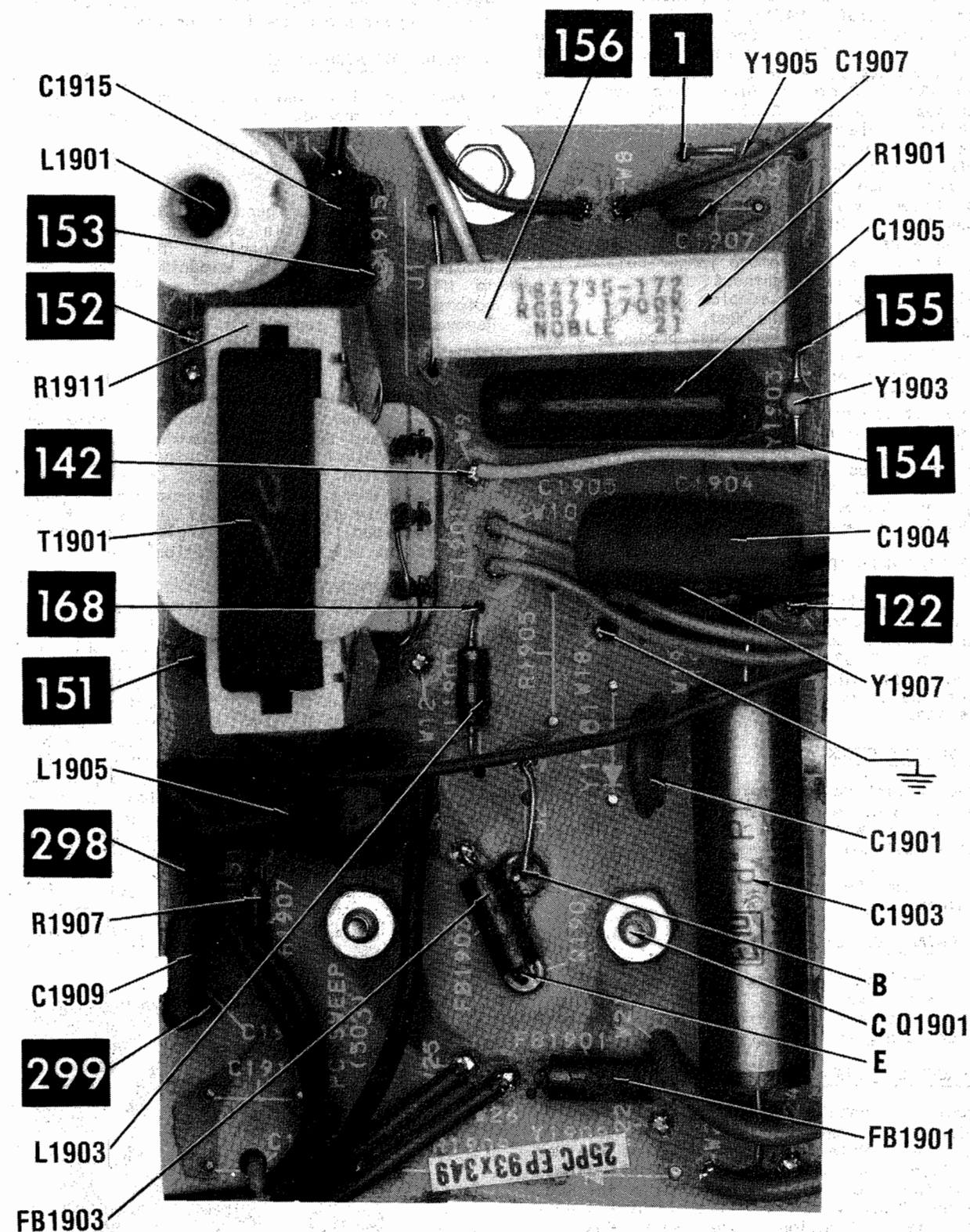
Set VIR Switch to Off and tune in a strong station. Adjust Picture Control to center of its range and Brightness Control for normal picture. Adjust IF AGC Control (R124) to center position. Adjust RF AGC Control (R116) to a point where snow just disappears. Adjust IF AGC Control to a point just before instability (overload, jitter, tearing, etc.). Check reception on all available stations.

PURITY ADJUSTMENT

If the CRT appears to be magnetized, use a degaussing coil to demagnetize the CRT and mounting brackets. Use a blank raster for purity adjustments. Turn Blue (R478), Red (R474) and Green (R476) Cutoff Controls fully counterclockwise. Turn Brightness Control fully clockwise. Adjust Brightness Center Control (R262) until raster is just cutoff. Adjust Red Cutoff Control clockwise for a red raster. Loosen and slide deflection yoke back against convergence assembly. Set purity magnets (rings) so that the squared tab and the rounded tab are together and horizontal on the CRT neck. Separate these tabs to center the red bar. Slide the deflection yoke forward to produce a uniform red raster. Check the purity of the blue and green fields by advancing the blue and green cutoff controls one at a time.



CRT NECK ASSEMBLY



HORIZ HEAT SINK BOARD

A Howard W. Sams CIRCUITRACE® Photo

TEST JIG HOOKUP

| FUNCTION | Chek-A-Color ADAPTER NO. | RCA / TeleMatic ADAPTER NO. | ZENITH ADAPTER NO. |
|-----------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------|
| CRT YOKE YOKE SETTING | B239 (1) (2) YP1A, B208, V508/V509 100mH toward chassis, Focus Tap | 10J683 10J695(2) Horiz 1.9, Vert 34 FVS-3950 Focus Voltage Supply | 852-422 852-438A (2) Horiz 1.2, Vert 34 Focus Tap |

(1) A .1uF capacitor across the vertical leads eliminates tearing.

(2) If vertical sweep is reversed, rotate vertical connector 180 degrees.

TROUBLESHOOTING

POWER SUPPLY

Check the AC Line Fuse (F901) and the DC Line Fuse (F903). If Fuse F901 is bad, check for possible shorts to ground at the Bridge Rectifier Diodes (Y901, Y903, Y905, Y907). If Diode Y903 is defective, check for a possible short to ground at the 116V Source. Check for 120V AC between the cathode of Diode Y903 and the cathode of Diode Y905. If 120V AC is not indicated, check Resistors R905 and R907 and Line Choke (L901). Check for 116V at the cathode of Diode Y901. If 116V is not present, check Diodes Y901, Y903, Y905, Y907 and Capacitors C901, C903, C905 and C907. If Regulator SCR (SCR903) does not turn On when the TV is turned On, check the Start-up Circuit Components (C904, R973, Y957, Y958 and SCR903). Check the voltages on the Shutdown SCR (SCR990) to see if the TV is in shutdown mode (See the "Shutdown Voltage Chart" for voltages in Shutdown). If the TV is in Shutdown, see the "High Voltage Shutdown Defeat" in the Circuit Description section. If the 116V Source is not regulated, check the voltage and waveforms on the Error Amp Transistor (Q901), Regulator Control Transistor (Q903), Regulator Trigger Transistor (Q905) and Regulator SCR (SCR903). All the other source voltages are developed from the Horizontal Output Transformer (T701). If any of the source voltages are not present check the rectifier diodes and other components associated with that source. If all the sources are low or not present, check Transformer T701 and the horizontal circuits. (See the "Horizontal" section of this Troubleshooting guide).

HORIZONTAL

Check the Shutdown SCR (SCR990) to see if it is in Shutdown mode (See "Shutdown Voltage Chart"). If it is On, see the "High Voltage Shutdown Defeat" in the Circuit Description section. Check for about 114V at pin 1 of the Horizontal Output Transformer (T701). If this voltage is low or not present, check for possible shorts or opens. If no problem is found, check the power supply circuits (See the "Power Supply" section of this Troubleshooting guide). Inject a horizontal signal at the base of the Horizontal Output Transistor (Q1901). If the high voltage returns, check the voltages, waveforms and associated components on pins 11 thru 15 of the Sweep

Oscillator IC (IC501) and the Horizontal Driver Transistor (Q701). If no high voltage appears, check Transistor Q1901, Deflection Yoke (DY1), Pincushion Transformer (T1901) and associated components. Also check Transformer T701 and for shorted B+ sources originating from Transformer T701, which could load down the horizontal circuit. Check the B+ Sources rectified by Diodes Y921, Y923 and Y925. The High Voltage Rectifier is part of the Transformer T701 and may be defective. Poor horizontal linearity or foldover problems may be caused by the condition of Capacitors C1901, C1903, C1904, C1905, C1907, C1909, C1915, Diodes Y1903 and Y1905, Width Coil (L1901) and the Damper Diode (part of Transistor Q1901).

SHUTDOWN VOLTAGE CHART

NOTE: Voltages measured with the TV in Shutdown Mode.

| ITEM | E | G | A |
|--------|------|-------|-------|
| SCR990 | .66V | 1.40V | 1.48V |

IF-AGC

Inject an IF signal at the IF Input cable and check for proper picture information on the CRT. If a picture is present, check the tuners and tuner AGC and AFT circuits. If a picture is not present, check for a video waveform at the base of the Video Emitter Follower Transistor (Q110). If the proper waveform is present, refer to the "Video" section of this Troubleshooting guide. If there is no video waveform at base of Transistor Q110, apply AGC bias to TP115. If the video waveform returns to the base of Transistor Q110, check the voltages and components associated with pins 12, 14, 15 and 16 on the IF/AGC/DET IC (IC101). See the "AGC Voltage Chart" for voltages that change with signal. If no video waveform appears at base of Transistor Q110, Inject an IF signal at pin 18 of IC101. If the video waveform appears at base of Transistor Q110, check the voltages and circuitry of the Preamp Transistor (Q105). If no video waveform appears at base of Transistor Q110, check the voltages and components associated with IC101.

TROUBLESHOOTING AID

Note: Waveforms taken with triggered scope, Keyed-Rainbow generator. Schematic voltages measured with digital meter, no signal. Controls adjusted for normal operation.

PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Check AC power supply and sources generated from Horizontal Output Transformer (T701). Refer to "Troubleshooting" Power Supply and Horizontal circuits.

NO PIC, NO SOUND, HAS RASTER: Check IF-AGC and supply sources from Horizontal Output Transformer (T701). Refer to "Troubleshooting" IF-AGC and Horizontal circuits.

NO PIC, HAS SOUND, NO RASTER: Check Horizontal Output Transformer (T701) sources and Video circuit. Refer to "Troubleshooting" Horizontal and Video circuits.

NO PIC, HAS SOUND, HAS RASTER: Refer to "Troubleshooting" Video circuit.

HAS PIC, NO SOUND: Refer to "Troubleshooting" Audio circuit.

OVERLOADED PICTURE: Refer to "Troubleshooting" IF-AGC circuit.

LOW OR EXCESSIVE BRIGHTNESS: Check Video and Luminance circuits. Refer to "Troubleshooting" Video circuit.

SWEEP

NO RASTER, HAS SOUND: Check HV rectifier, Part of Horizontal Output Transformer (T701). Refer to "Troubleshooting" Horizontal circuit.

NO RASTER, NO SOUND: Refer to "Troubleshooting" Horizontal circuit.

NO VERT DEFLECTION: Refer to "Troubleshooting" Vertical circuit.

POOR VERT LIN OR FOLDOVER: Refer to "Troubleshooting" Vertical circuit.

POOR HORIZ LIN OR FOLDOVER: Refer to "Troubleshooting" Horizontal circuit.

NARROW PICTURE: Refer to "Troubleshooting" Horizontal circuit.

VERT OFF FREQUENCY: Refer to "Troubleshooting" Vertical circuit.

HORIZ OFF FREQUENCY: Refer to "Troubleshooting" Horizontal circuit.

SYNC

NO VERT/HORIZ SYNC: Refer to "Troubleshooting" Sync circuit.

RASTER

YELLOW (NO BLUE): Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

CYAN (NO RED): Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

MAGENTA (NO GREEN): Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

COLOR (B/W operating normally)

NO COLOR: Refer to "Troubleshooting" Chroma circuit.

WEAK COLOR: Refer to "Troubleshooting" Chroma circuit.

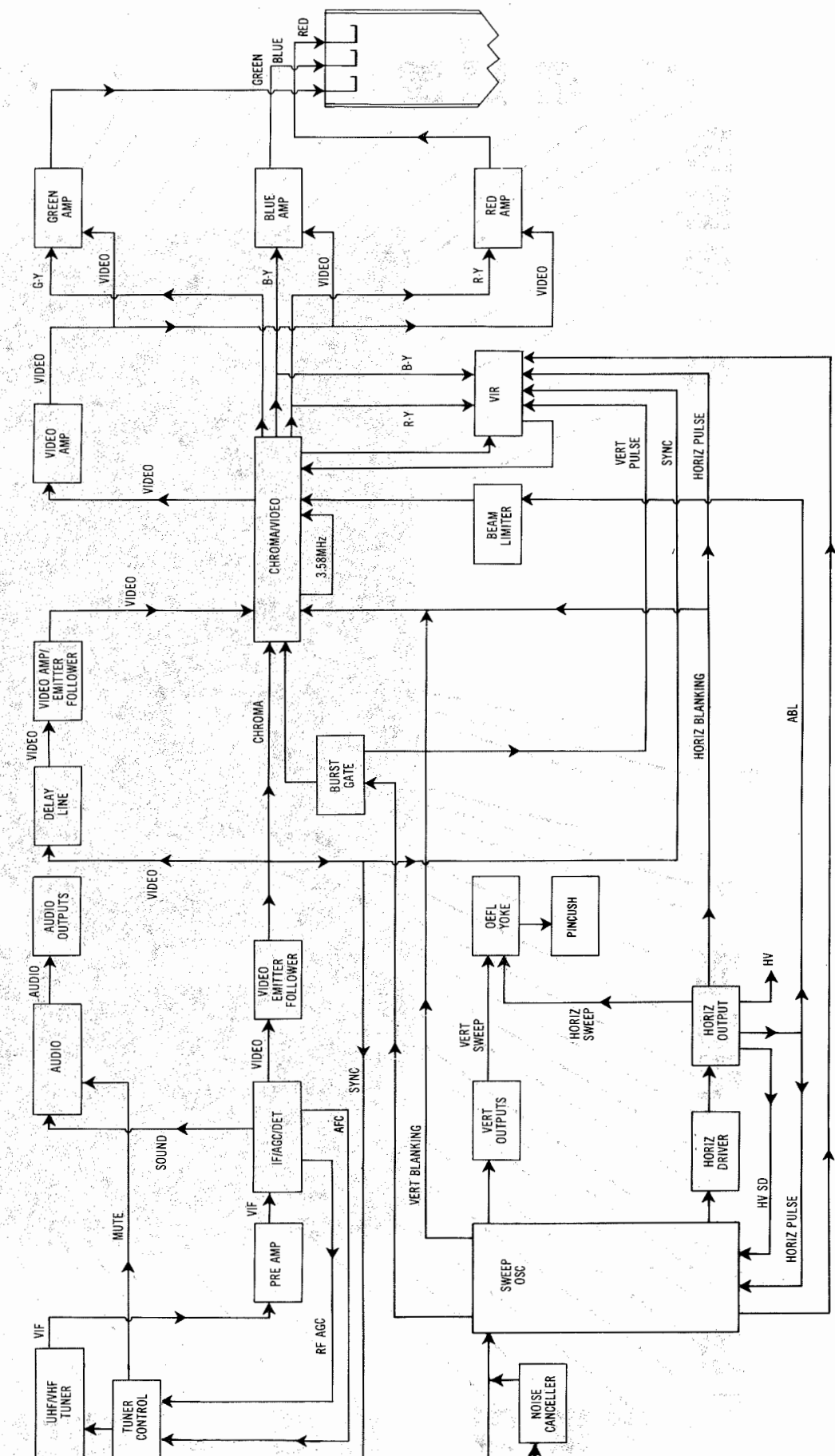
NO COLOR SYNC: Refer to "Troubleshooting" Chroma circuit.

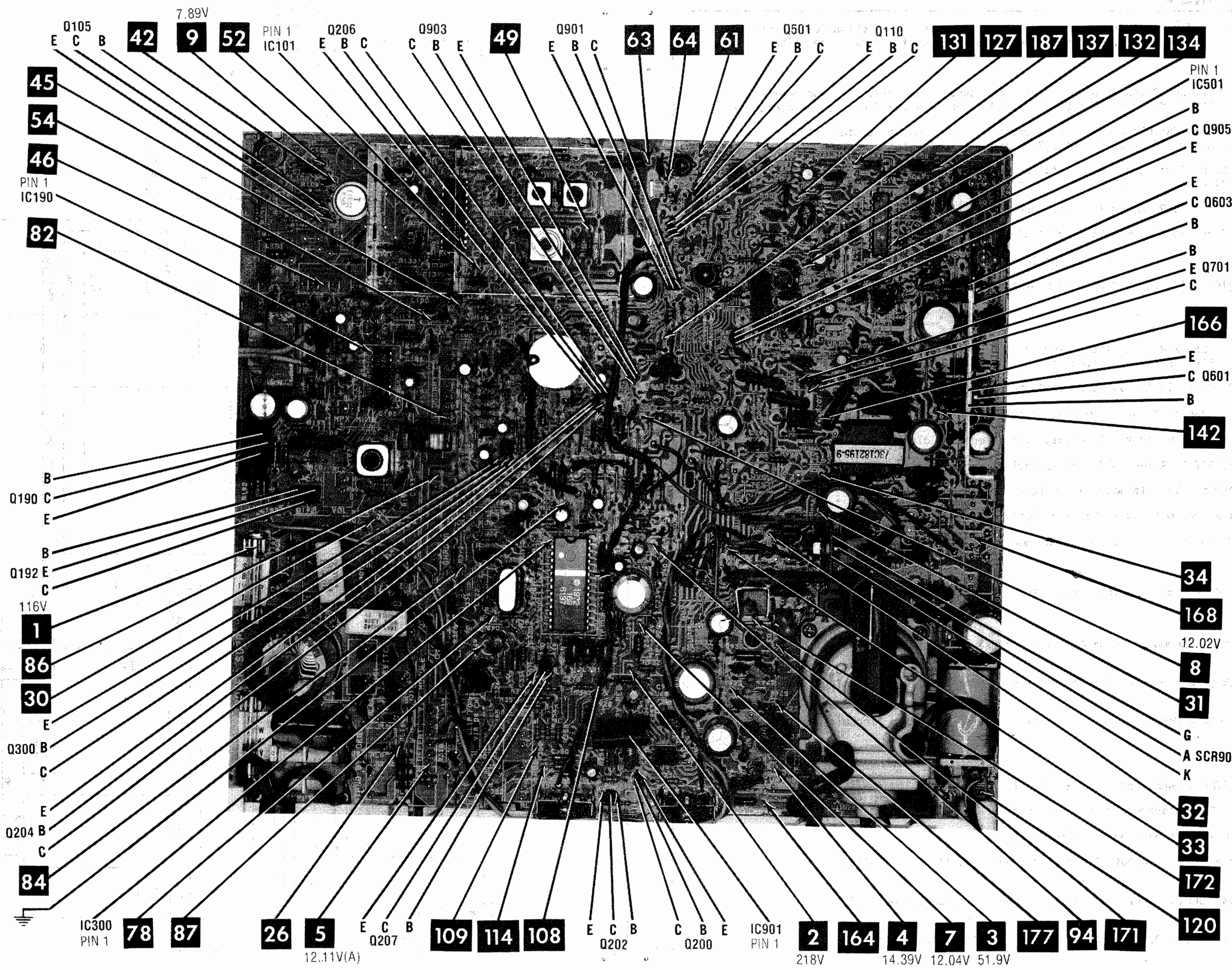
NO GREEN: Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

NO BLUE: Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

NO RED: Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

INCORRECT HUE (TINT): Refer to "Troubleshooting" Chroma circuit.





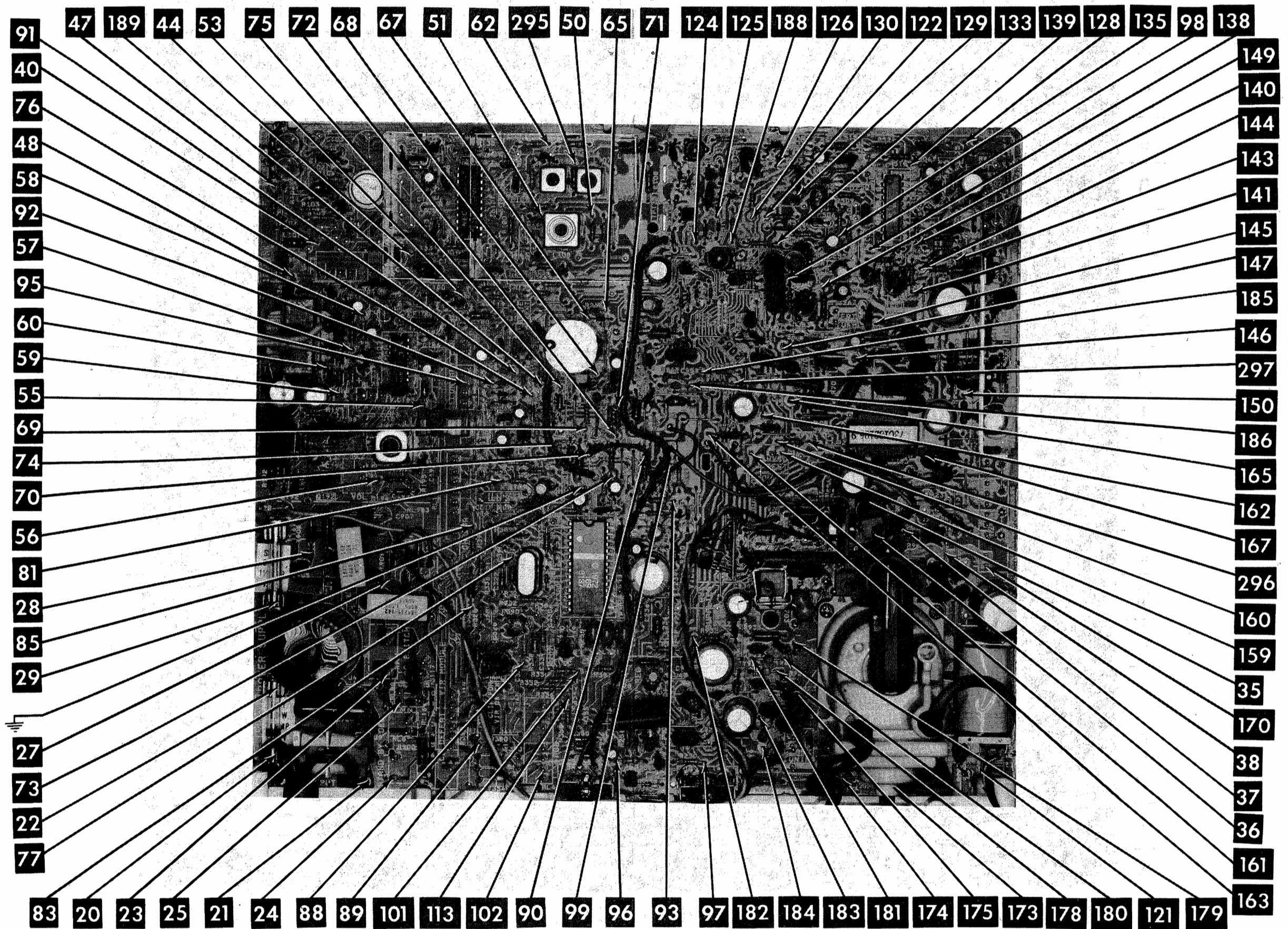
GENERAL ELECTRIC
CHASSIS 25PC-A

FOLDER 2

MAIN BOARD

MAIN BOARD

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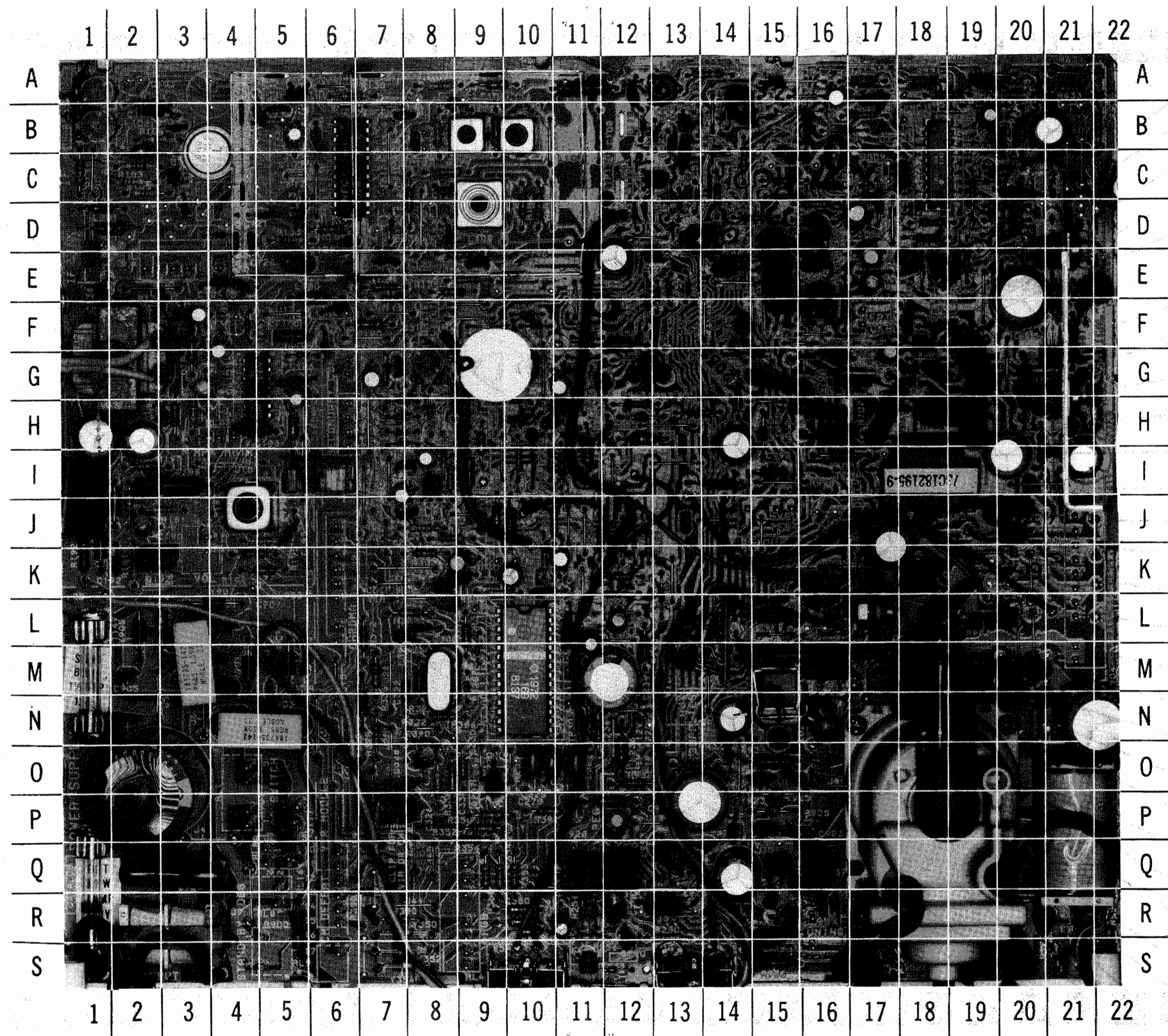
MAIN BOARD

A Howard W. Sams CIRCUITRACE[®] Photo

MAIN BOARD

GENERAL ELECTRIC
CHASSIS 25PC-A

FOLDER 2





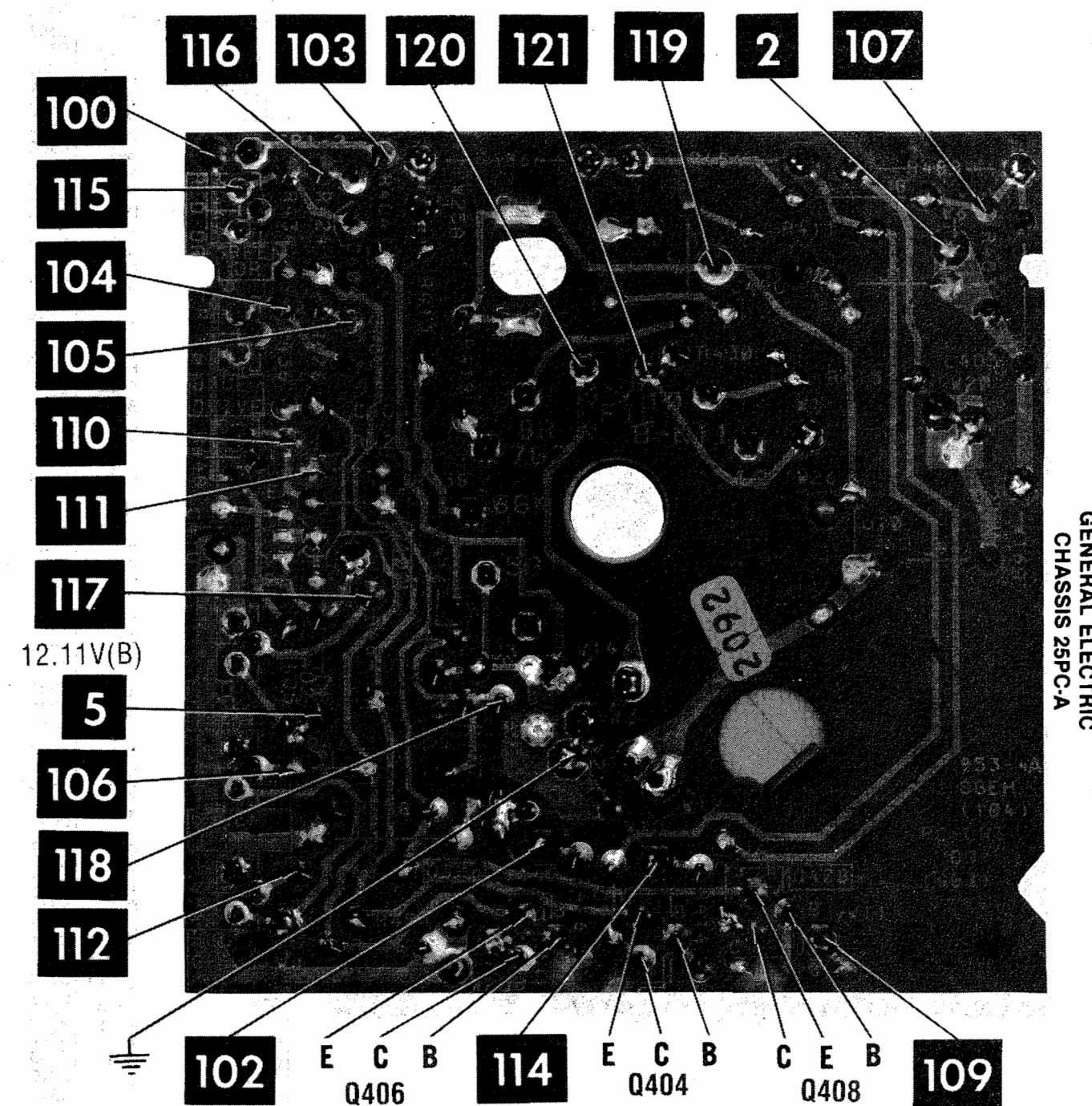
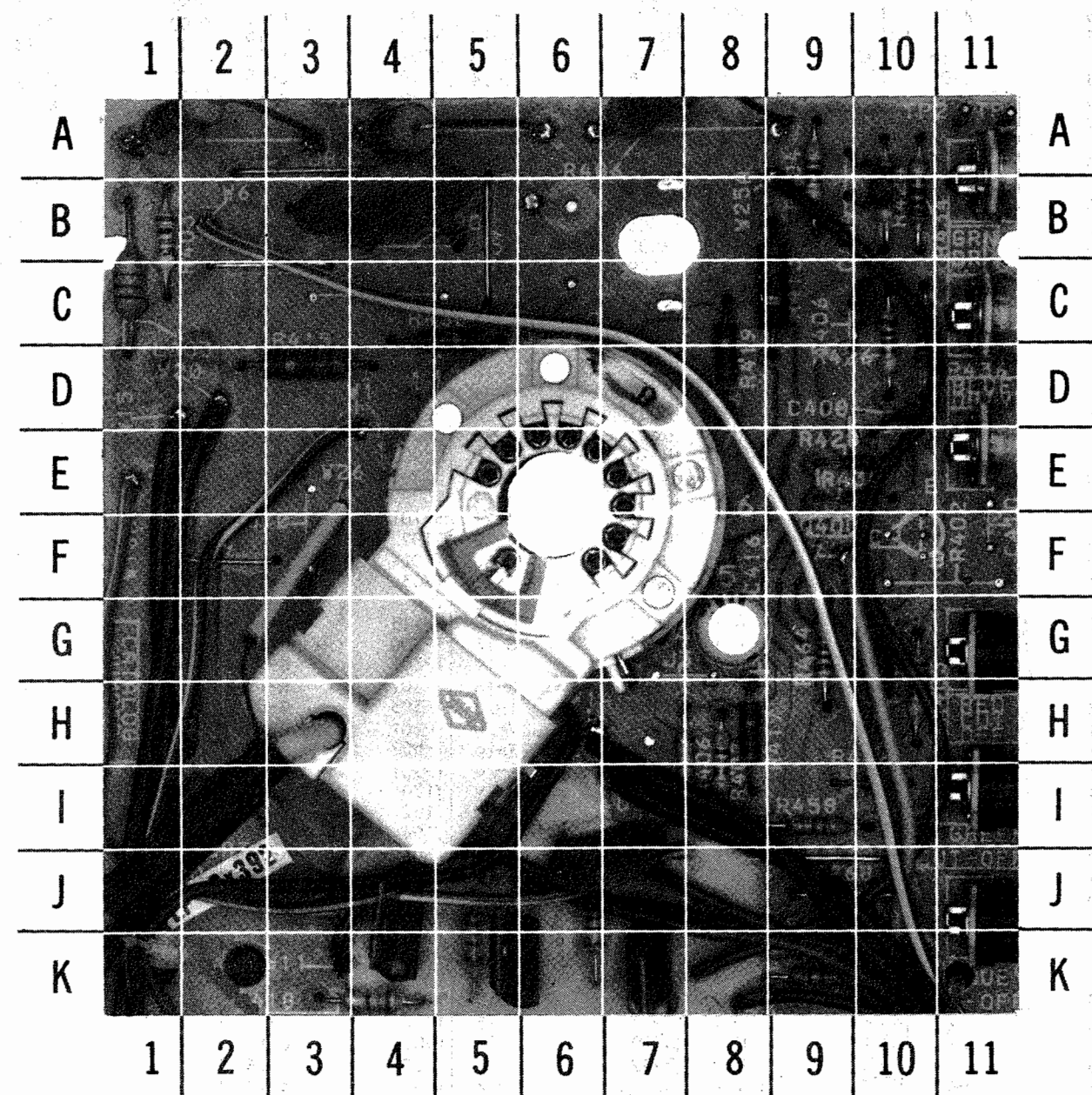
MAIN BOARD-SHIELD LOCATION

MAIN BOARD-GridTrace LOCATION GUIDE

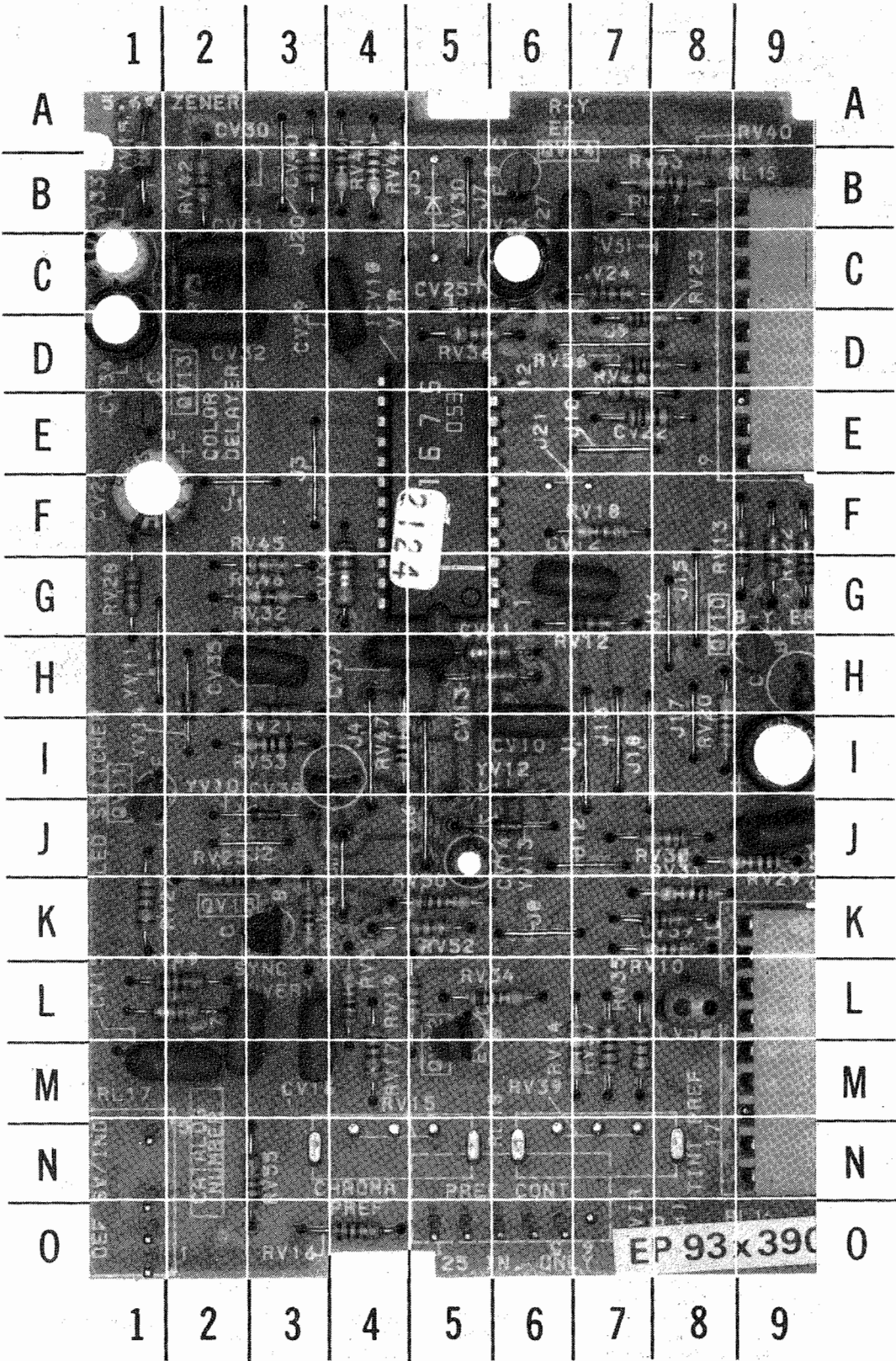
| | | | | | | | | | | | | | |
|------|------|-------|------|-----------|------|------|------|-------|------|---------|------|-------|------|
| C101 | D-3 | C354 | R-10 | CF212 | H-10 | R126 | F-4 | R381 | G-7 | R952 | E-14 | Y907 | L-4 |
| C102 | B-3 | C370 | K-8 | F901 | Q-1 | R128 | E-8 | R389 | L-8 | R953 | D-13 | Y921 | Q-15 |
| C103 | B-2 | C372 | H-9 | F903 | M-1 | R129 | C-8 | R390 | N-8 | R955 | C-14 | Y923 | P-15 |
| C104 | E-4 | C373 | N-11 | FB200 | H-11 | R130 | A-7 | R391 | P-10 | R957 | E-13 | Y925 | P-15 |
| C105 | B-5 | C390 | I-8 | FB921 | Q-16 | R131 | C-1 | R503 | E-15 | R959 | E-13 | Y931 | S-12 |
| C106 | E-12 | C391 | I-7 | FB963 | N-20 | R133 | D-5 | R505 | D-16 | R961 | H-13 | Y932 | S-12 |
| C107 | A-9 | C392 | K-9 | FB953A | M-20 | R134 | E-9 | R506 | D-17 | R963 | H-12 | Y951 | F-12 |
| C108 | B-12 | C393 | G-7 | HVSD Test | J-15 | R135 | A-2 | R507 | C-17 | R965 | E-13 | Y954 | M-14 |
| C109 | A-12 | C394 | J-8 | IC101 | C-6 | R136 | D-4 | R508 | C-14 | R969 | J-17 | Y955 | H-12 |
| C110 | E-3 | C395 | I-8 | IC190 | G-5 | R180 | C-8 | R509 | B-17 | R971 | G-15 | Y957 | K-16 |
| C111 | B-8 | C501 | E-17 | IC300 | M-10 | R181 | J-3 | R511 | D-16 | R973 | M-14 | Y958 | L-15 |
| C113 | D-5 | C503 | C-18 | IC501 | C-18 | R182 | G-5 | R513 | C-15 | R975 | K-18 | Y959 | G-14 |
| C114 | B-9 | C505 | D-17 | IC901 | Q-11 | R183 | J-4 | R515 | B-14 | R981 | M-15 | Y961 | F-12 |
| C115 | B-9 | C506 | C-16 | L101 | D-2 | R186 | F-3 | R516 | B-17 | R983 | J-20 | Y963 | N-20 |
| C116 | A-5 | C507 | C-15 | L102 | B-2 | R188 | H-3 | R517 | C-13 | R985 | F-11 | Y963A | M-20 |
| C117 | B-5 | C509 | B-16 | L104 | A-11 | R190 | J-2 | R518 | A-19 | R990 | I-14 | Y965 | G-13 |
| C118 | B-5 | C512 | B-14 | L105 | A-13 | R191 | K-2 | R519 | A-17 | R996 | R-14 | Y990 | B-16 |
| C119 | E-4 | C513 | A-16 | L106 | B-9 | R192 | K-1 | R521 | A-18 | R998 | I-16 | Y991 | Q-13 |
| C120 | C-8 | C514 | A-15 | L107 | B-10 | R193 | I-2 | R523 | B-13 | R999A | S-18 | Y992 | H-15 |
| C121 | D-5 | C515 | A-17 | L108 | D-9 | R194 | K-4 | R525 | B-14 | R999B | S-18 | Y993 | L-14 |
| C124 | D-8 | C517 | B-13 | L180 | E-6 | R195 | J-5 | R527 | D-13 | RL/PG1 | O-4 | X300 | M-8 |
| C125 | E-5 | C521 | C-15 | L190 | J-4 | R198 | H-3 | R529 | B-14 | RL/PG2 | J-3 | | |
| C126 | D-4 | C523 | C-16 | L196 | F-3 | R200 | I-10 | R531 | F-16 | RL/PG3 | E-3 | | |
| C127 | E-7 | C601 | C-20 | L200 | H-10 | R202 | G-11 | R535 | D-15 | RL/PG4 | S-9 | | |
| C135 | B-8 | C603 | E-18 | L204 | I-11 | R204 | H-11 | R537 | D-16 | RL/PG5 | R-22 | | |
| C136 | E-1 | C605 | B-20 | L220 | G-9 | R205 | I-10 | R601 | D-18 | RL/PG6 | H-6 | | |
| C137 | B-6 | C607 | A-21 | L236 | O-12 | R206 | G-11 | R603 | D-18 | RL/PG7 | D-1 | | |
| C139 | D-6 | C609 | B-19 | L259 | H-12 | R208 | G-11 | R605 | D-20 | RL/PG8 | R-5 | | |
| C142 | E-9 | C611 | A-19 | L300 | J-10 | R209 | J-10 | R609 | G-19 | RL8A | Q-5 | | |
| C180 | F-7 | C613 | E-22 | L320 | O-10 | R210 | K-10 | R611 | E-20 | RL9 | R-5 | | |
| C182 | F-6 | C614 | G-17 | L321 | O-10 | R211 | H-7 | R613 | E-19 | RL/PG10 | R-16 | | |
| C183 | H-4 | C615 | E-20 | L322 | O-11 | R212 | H-7 | R615 | C-19 | RL/PG11 | F-17 | | |
| C184 | F-6 | C617 | F-18 | L703 | N-16 | R213 | H-7 | R617 | D-20 | RL/PG15 | J-6 | | |
| C185 | G-4 | C619 | I-21 | L901 | R-3 | R214 | S-10 | R619 | E-18 | RL/PG16 | Q-6 | | |
| C186 | G-5 | C621 | I-20 | L909 | P-21 | R216 | F-10 | R621 | G-20 | RL/PG17 | O-1 | | |
| C187 | H-3 | C623 | C-20 | L921 | R-15 | R218 | F-10 | R623 | B-20 | RL/PG20 | K-21 | | |
| C188 | I-3 | C701 | H-16 | L929 | S-21 | R220 | H-10 | R625 | B-22 | RL255 | H-4 | | |
| C189 | F-3 | C703 | J-18 | Q105 | C-3 | R221 | J-12 | R626 | S-13 | RL903 | K-4 | | |
| C190 | J-2 | C705 | M-16 | Q110 | C-13 | R222 | K-12 | R627 | B-19 | SCR903 | L-17 | | |
| C191 | F-3 | C706 | H-17 | Q190 | I-1 | R224 | H-7 | R631 | S-13 | SCR990 | M-13 | | |
| C192 | K-2 | C900 | Q-3 | Q192 | K-2 | R226 | L-12 | R633 | A-21 | SF101 | B-4 | | |
| C193 | J-5 | C901 | M-5 | Q200 | S-12 | R228 | J-12 | R635 | A-20 | T192 | G-2 | | |
| C194 | H-2 | C902 | L-2 | Q202 | S-11 | R230 | O-10 | R637 | D-20 | T701 | P-18 | | |
| C195 | H-5 | C903 | N-5 | Q204 | H-10 | R234 | K-20 | R639 | F-21 | T703 | I-18 | | |
| C196 | H-1 | C904 | N-22 | Q206 | H-11 | R240 | M-12 | R641 | F-22 | TP4 | E-3 | | |
| C197 | H-5 | C905 | M-2 | Q207 | O-9 | R250 | R-13 | R643 | G-18 | TP115 | B-15 | | |
| C198 | G-3 | C906 | K-17 | Q300 | I-8 | R252 | R-11 | R645 | G-16 | TP300 | K-10 | | |
| C199 | K-5 | C907 | L-4 | Q501 | B-13 | R254 | R-11 | R647 | G-19 | TP301 | K-9 | | |
| C200 | J-10 | C921 | Q-14 | Q601 | H-21 | R256 | F-18 | R649 | F-18 | TP302 | N-11 | | |
| C202 | G-11 | C923 | Q-16 | Q603 | D-21 | R258 | J-11 | R651 | I-20 | TP303 | G-8 | | |
| C204 | I-11 | C924 | S-19 | Q701 | G-17 | R262 | G-8 | R653 | J-20 | TP501 | B-18 | | |
| C205 | H-12 | C925 | Q-14 | Q901 | E-13 | R270 | O-9 | R655 | F-16 | TP502 | A-18 | | |
| C206 | M-11 | C927 | P-15 | Q903 | G-12 | R300 | K-9 | R657 | F-16 | TP901 | L-1 | | |
| C208 | L-11 | C929 | P-14 | Q905 | F-14 | R302 | K-8 | R702 | H-19 | Y190 | J-1 | | |
| C210 | K-10 | C931 | P-13 | R101 | D-1 | R310 | M-9 | R703 | J-20 | Y192 | J-2 | | |
| C234 | N-12 | C933 | S-20 | R102 | C-2 | R312 | I-8 | R707 | H-16 | Y194 | I-3 | | |
| C236 | N-11 | C935 | O-15 | R103 | C-2 | R316 | G-8 | R900 | R-5 | Y202 | K-13 | | |
| C250 | R-12 | C937 | O-14 | R104 | B-2 | R318 | J-8 | R901 | P-5 | Y204 | J-12 | | |
| C256 | R-11 | C939 | N-14 | R105 | C-2 | R320 | M-9 | R903 | L-3 | Y206 | L-12 | | |
| C300 | K-10 | C941 | S-20 | R108 | B-5 | R322 | N-8 | R905 | N-5 | Y300 | N-7 | | |
| C302 | L-8 | C943 | P-12 | R109 | A-8 | R326 | P-7 | R907 | M-3 | Y350 | R-7 | | |
| C306 | I-9 | C945 | S-15 | R111 | A-14 | R328 | N-7 | R921 | S-19 | Y352 | S-7 | | |
| C308 | L-8 | C947 | R-14 | R112 | B-12 | R330 | P-7 | R923 | R-15 | Y354 | S-8 | | |
| C312 | L-9 | C953 | G-12 | R113 | D-12 | R336 | M-7 | R925 | P-15 | Y370 | H-8 | | |
| C314 | J-9 | C955 | G-15 | R114 | B-13 | R338 | O-8 | R927 | O-15 | Y382 | I-8 | | |
| C316 | L-7 | C957 | L-16 | R115 | B-8 | R350 | P-9 | R929 | R-21 | Y501 | C-13 | | |
| C320 | M-8 | C959 | L-17 | R116 | B-1 | R352 | P-9 | R932 | O-13 | Y503 | B-16 | | |
| C322 | M-7 | C961 | F-12 | R117 | D-10 | R354 | Q-9 | R932A | O-12 | Y601 | E-16 | | |
| C326 | Q-7 | C965 | K-19 | R118 | D-6 | R355 | Q-10 | R933 | O-15 | Y603 | I-16 | | |
| C328 | O-8 | C967 | E-17 | R119 | F-7 | R356 | Q-9 | R935 | P-12 | Y605 | F-18 | | |
| C330 | Q-9 | C990 | I-15 | R121 | E-7 | R358 | R-9 | R936 | S-15 | Y607 | G-20 | | |
| C334 | Q-8 | C991 | H-14 | R122 | D-10 | R370 | H-9 | R937 | Q-16 | Y609 | G-22 | | |
| C336 | G-7 | C993 | Q-13 | R123 | D-7 | R371 | J-8 | R939 | S-18 | Y901 | M-4 | | |
| C350 | R-10 | C999 | G-12 | R124 | A-1 | R372 | L-7 | R941 | R-13 | Y903 | M-5 | | |
| C352 | R-10 | CF100 | F-5 | R125 | E-9 | R380 | R-7 | R951 | E-14 | Y905 | L-2 | | |

RGB BOARD-GridTrace LOCATION GUIDE

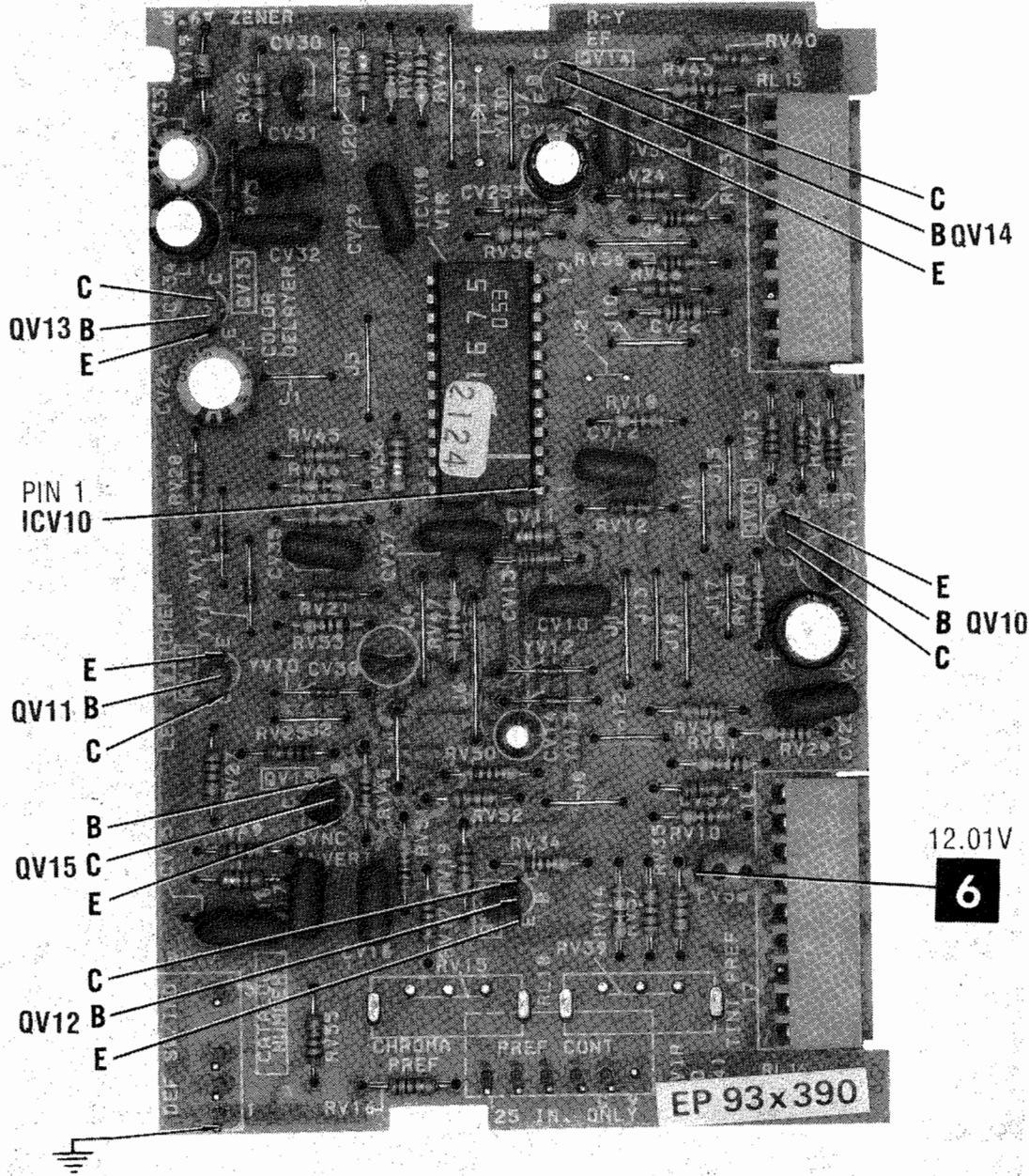
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|------|------|------|------|------|------|------|------|------|------|
| C403 | J-7 | R403 | B-1 | R417 | H-8 | R444 | B-11 | R476 | I-11 |
| C404 | B-10 | R404 | A-9 | R418 | K-4 | R446 | C-11 | R478 | J-11 |
| C406 | C-10 | R405 | H-10 | R419 | D-8 | R448 | E-11 | R484 | A-4 |
| C408 | D-10 | R406 | H-8 | R424 | B-10 | R454 | K-9 | R486 | A-7 |
| C416 | G-8 | R407 | H-8 | R426 | C-10 | R456 | K-9 | R488 | A-1 |
| C490 | B-4 | R411 | B-3 | R428 | E-10 | R458 | I-9 | TP1 | A-11 |
| L403 | C-1 | R413 | C-9 | R430 | C-5 | R464 | G-9 | TP2 | A-11 |
| Q404 | K-5 | R414 | K-5 | R434 | B-10 | R466 | I-10 | Y402 | G-10 |
| Q406 | K-7 | R415 | D-3 | R436 | C-10 | R468 | J-9 | | |
| Q408 | J-4 | R416 | J-6 | R438 | E-10 | R474 | G-11 | | |



VIR BOARD-GridTrace LOCATION GUIDE



| | | | |
|-------|-----|------|-----|
| CV10 | I-6 | RV50 | K-5 |
| CV11 | H-5 | RV51 | L-4 |
| CV12 | G-7 | RV52 | K-5 |
| CV13 | H-6 | RV53 | I-3 |
| CV14 | J-5 | RV55 | N-3 |
| CV15 | M-2 | RV56 | D-7 |
| CV16 | M-3 | RV57 | M-7 |
| CV17 | L-2 | YV10 | J-3 |
| CV18 | L-2 | YV11 | H-1 |
| CV19 | H-9 | YV12 | I-6 |
| CV21 | I-9 | YV13 | J-6 |
| CV22 | E-7 | YV14 | H-2 |
| CV23 | J-9 | YV15 | B-1 |
| CV24 | F-1 | | |
| CV25 | C-5 | | |
| CV26 | C-6 | | |
| CV27 | C-7 | | |
| CV29 | C-4 | | |
| CV30 | B-2 | | |
| CV31 | C-2 | | |
| CV32 | D-2 | | |
| CV33 | C-1 | | |
| CV34 | D-1 | | |
| CV35 | H-3 | | |
| CV36 | G-4 | | |
| CV37 | H-5 | | |
| CV38 | I-3 | | |
| CV39 | K-8 | | |
| CV40 | B-3 | | |
| CV51 | C-8 | | |
| ICV10 | F-5 | | |
| LV50 | L-8 | | |
| QV10 | H-9 | | |
| QV11 | J-1 | | |
| QV12 | M-5 | | |
| QV13 | E-1 | | |
| QV14 | B-6 | | |
| QV15 | K-3 | | |
| RV10 | K-8 | | |
| RV11 | G-9 | | |
| RV12 | G-7 | | |
| RV13 | G-9 | | |
| RV14 | M-7 | | |
| RV16 | O-4 | | |
| RV17 | M-4 | | |
| RV18 | F-7 | | |
| RV19 | L-5 | | |
| RV20 | I-8 | | |
| RV21 | H-3 | | |
| RV22 | G-9 | | |
| RV23 | D-7 | | |
| RV24 | C-7 | | |
| RV25 | J-2 | | |
| RV26 | E-7 | | |
| RV27 | K-1 | | |
| RV28 | G-1 | | |
| RV29 | J-9 | | |
| RV30 | J-8 | | |
| RV31 | K-8 | | |
| RV32 | G-3 | | |
| RV33 | C-2 | | |
| RV34 | L-6 | | |
| RV35 | M-7 | | |
| RV36 | D-5 | | |
| RV37 | B-8 | | |
| RV40 | B-8 | | |
| RV41 | B-4 | | |
| RV42 | B-2 | | |
| RV43 | B-8 | | |
| RV44 | B-4 | | |
| RV45 | G-3 | | |
| RV46 | G-3 | | |
| RV47 | I-4 | | |
| RV48 | K-3 | | |
| RV49 | L-2 | | |



GENERAL ELECTRIC
CHASSIS 25PC-A

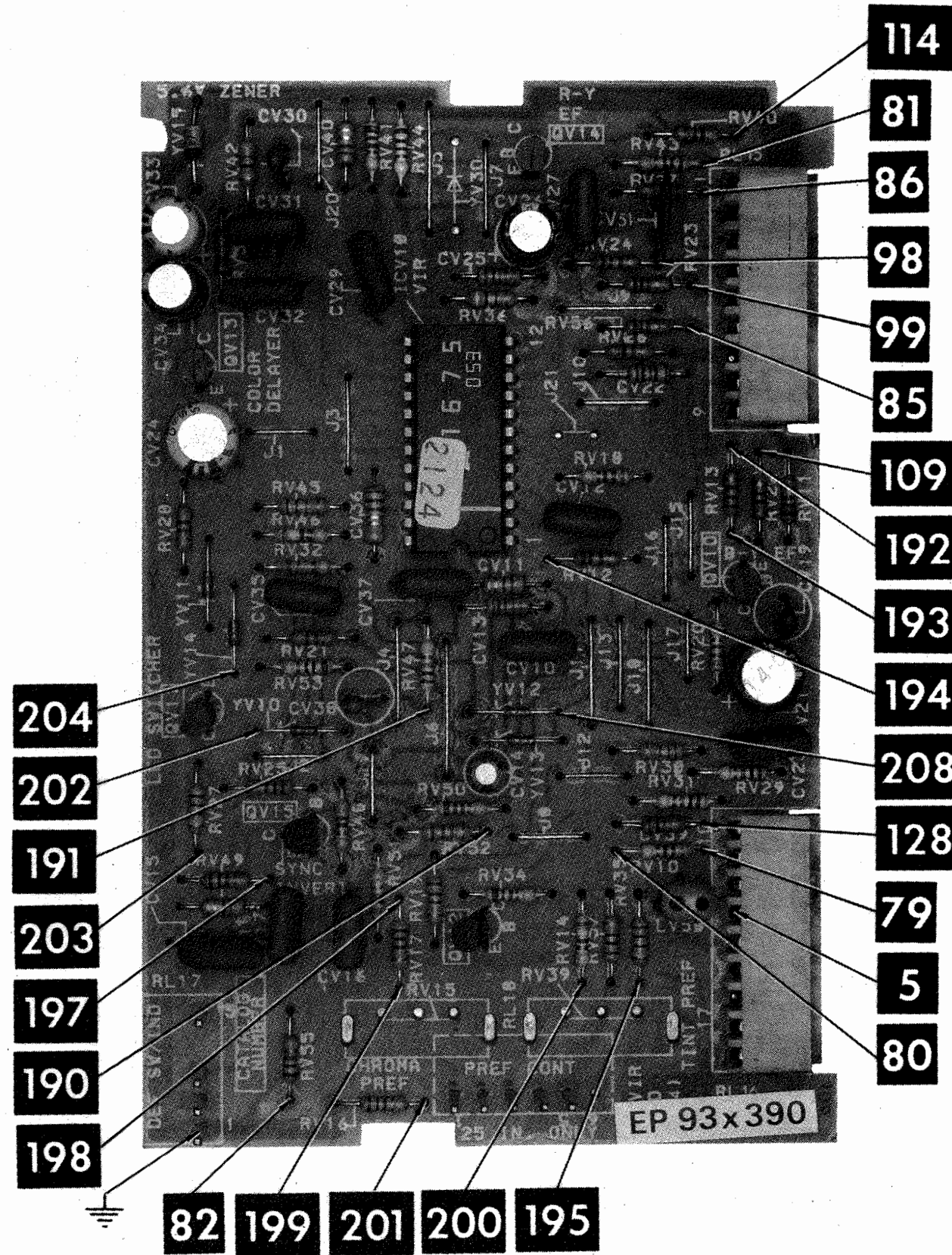
FOLDER 2

VIR BOARD

A Howard W. Sams **GRIDTRACE** Photo

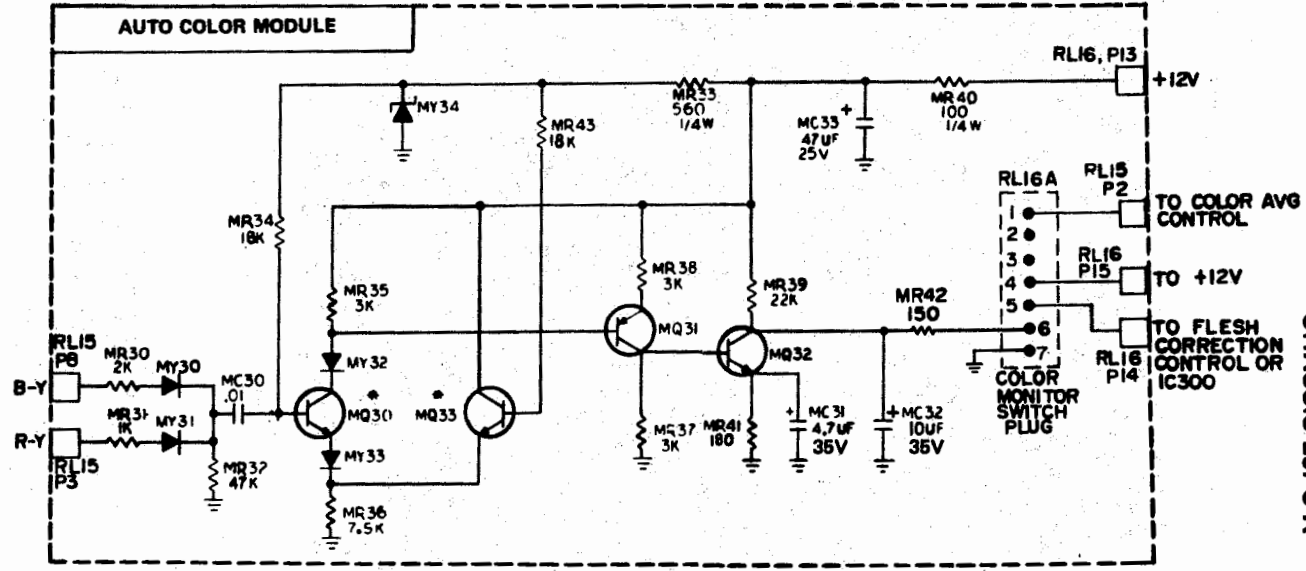
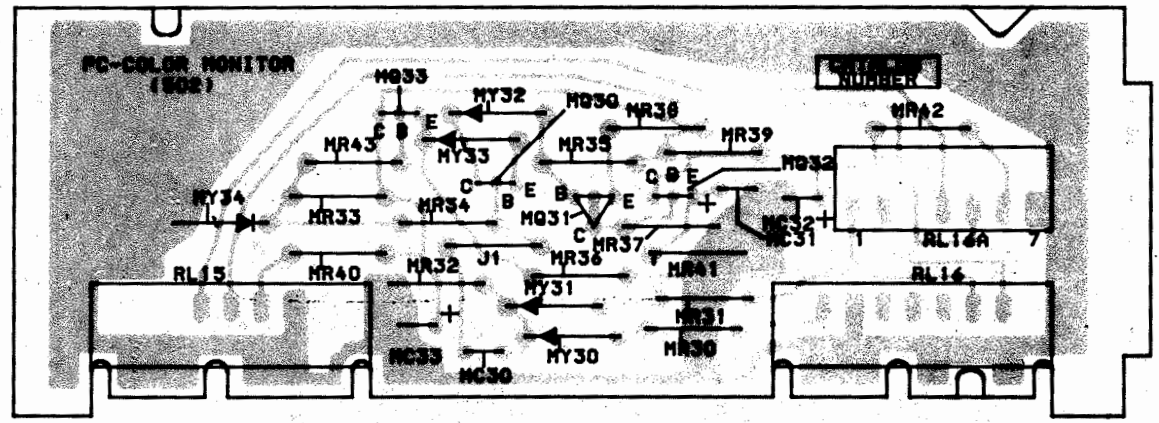
A Howard W. Sams **CIRCUITRACE** Photo

VIR BOARD



VIR BOARD

A Howard W. Sams CIRCUITRACE® Photo



GENERAL ELECTRIC
CHASSIS 25PC-A

CAPACITORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|----------------------------|
| MC30 | EP18X169 | .01uf, 30%, 25V, Cer. Disc |
| MC31 | EP31X11 | 4.7uf, 10%, 35V, Elect. |
| MC32 | EP31X35 | 10uf, 10%, 35V, Elect. |
| MC33 | EP31X45 | 47uf, 10%, 25V, Elect. |

RESISTORS

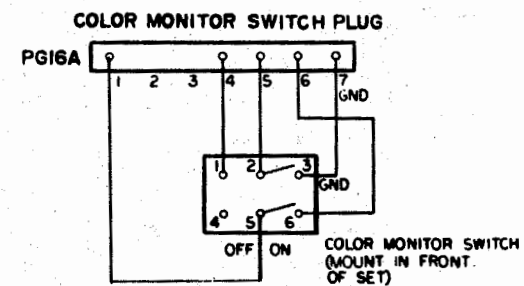
| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|----------------------------|
| MR30 | CH1220 | 2K ohm, 5%, 1/8W, Carbon |
| MR31 | CA5210 | 1K ohm, 5%, 1/8W, Carbon |
| MR32 | CA5347 | 47K ohm, 5%, 1/8W, Carbon |
| MR33 | CH1156 | 560 ohm, 5%, 1/4W, Carbon |
| MR34 | CA1318 | 18K ohm, 5%, 1/8W, Carbon |
| MR35 | CH1230 | 3K ohm, 5%, 1/8W, Carbon |
| MR36 | EP14X122 | 7.5K ohm, 5%, 1/8W, Carbon |
| MR37 | CH1230 | 3K ohm, 5%, 1/8W, Carbon |
| MR38 | CH1230 | 3K ohm, 5%, 1/8W, Carbon |
| MR39 | CH1322 | 22K ohm, 5%, 1/8W, Carbon |
| MR40 | CH1110 | 100 ohm, 5%, 1/4W, Carbon |
| MR41 | CH1118 | 180 ohm, 5%, 1/8W, Carbon |
| MR42 | CH1115 | 150 ohm, 5%, 1/8W, Carbon |
| MR43 | CH1318 | 18K ohm, 5%, 1/8W, Carbon |

TRANSISTORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------|
| MQ30 | EP15X87 | NPN, Silicon |
| MQ31 | ES15X90 | PNP, Silicon |
| MQ32 | EP15X86 | NPN, Silicon |
| MQ33 | EP15X87 | NPN, Silicon |

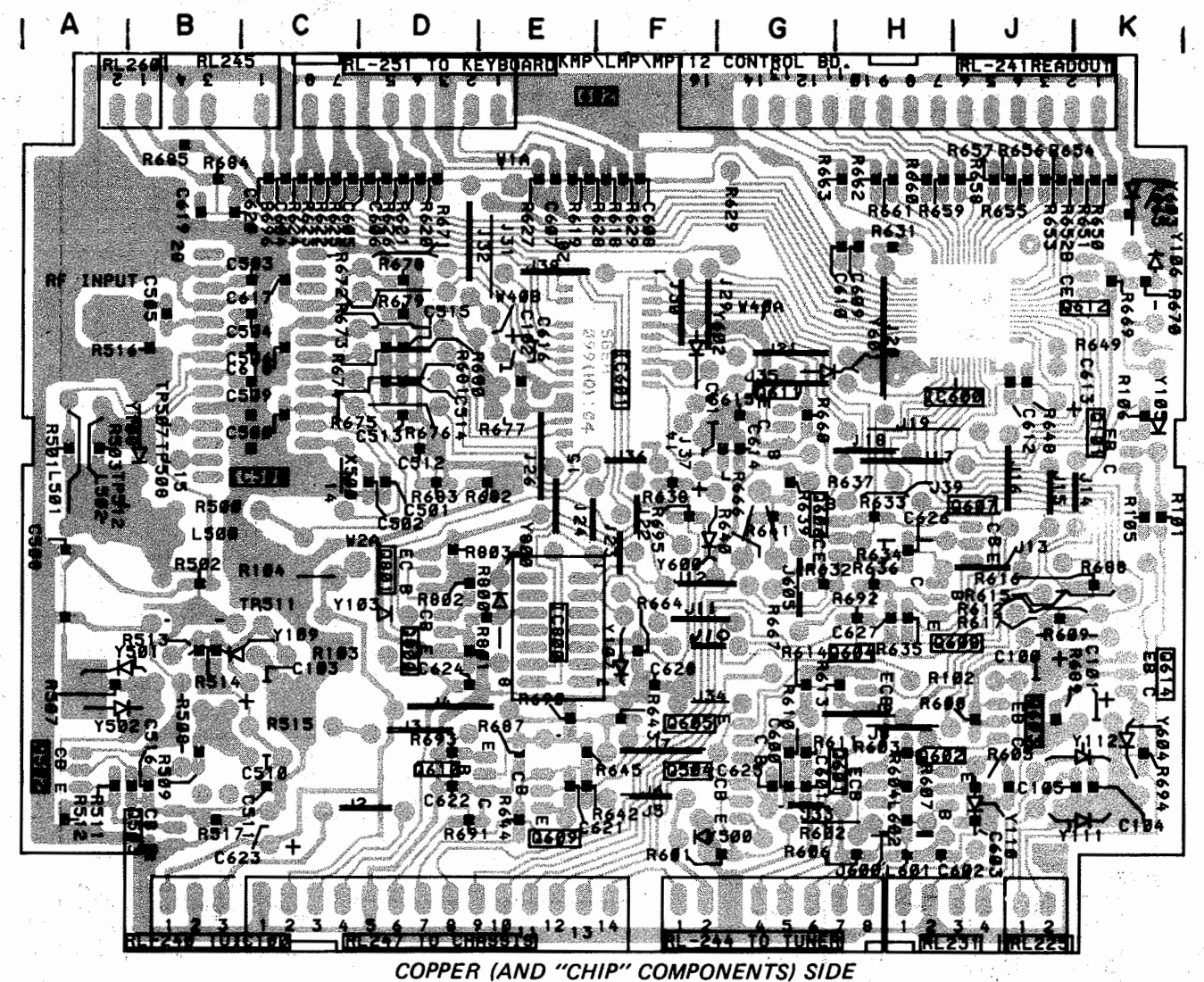
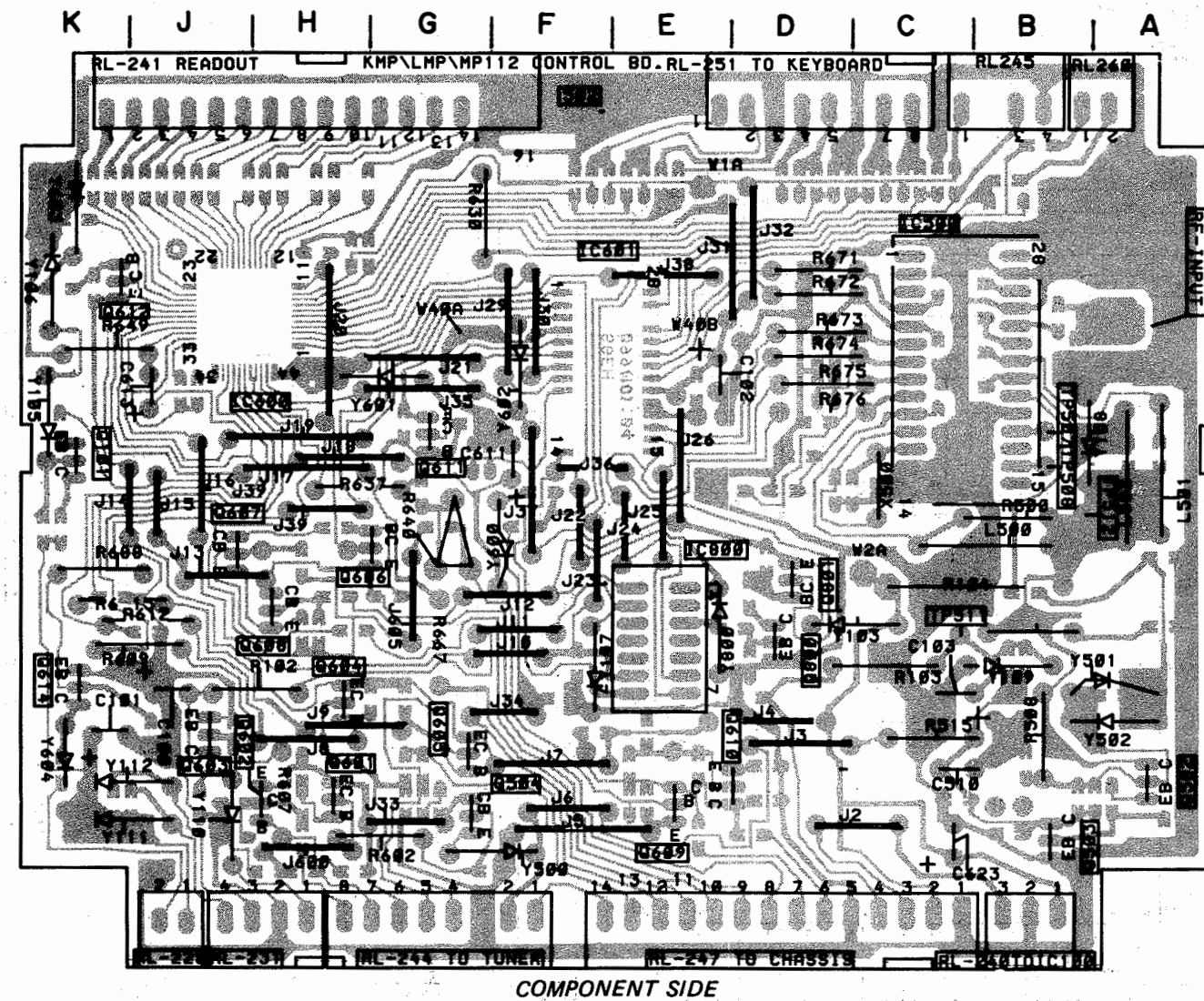
DIODES

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------|
| MY30 | EU16X11 | Silicon |
| MY31 | EU16X11 | Silicon |
| MY32 | EU16X11 | Silicon |
| MY33 | EU16X11 | Silicon |
| MY34 | EP16X19 | Zener |



Courtesy of the Manufacturer

AUTO COLOR MODULE



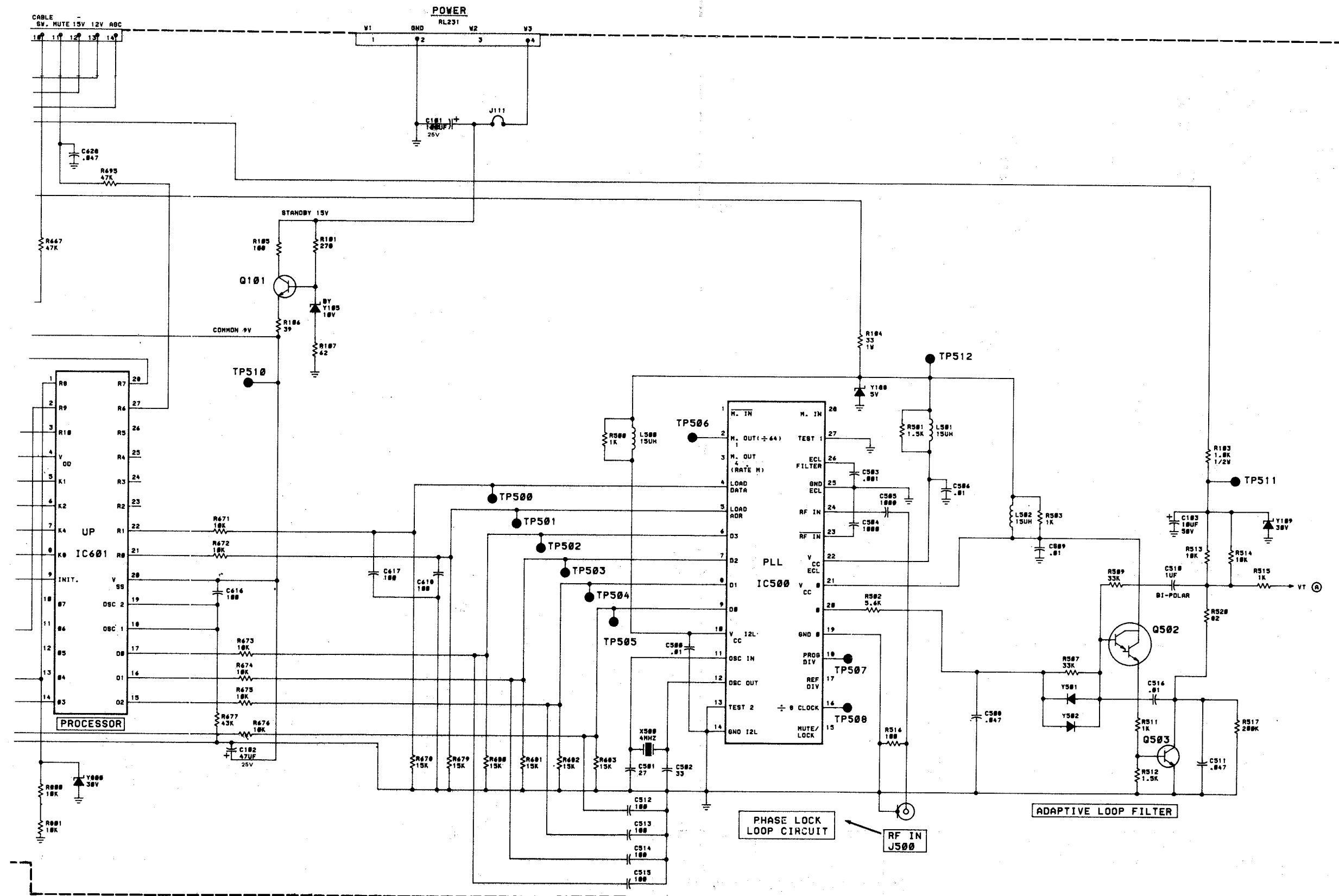
GENERAL ELECTRIC
CHASSIS 25PC-A

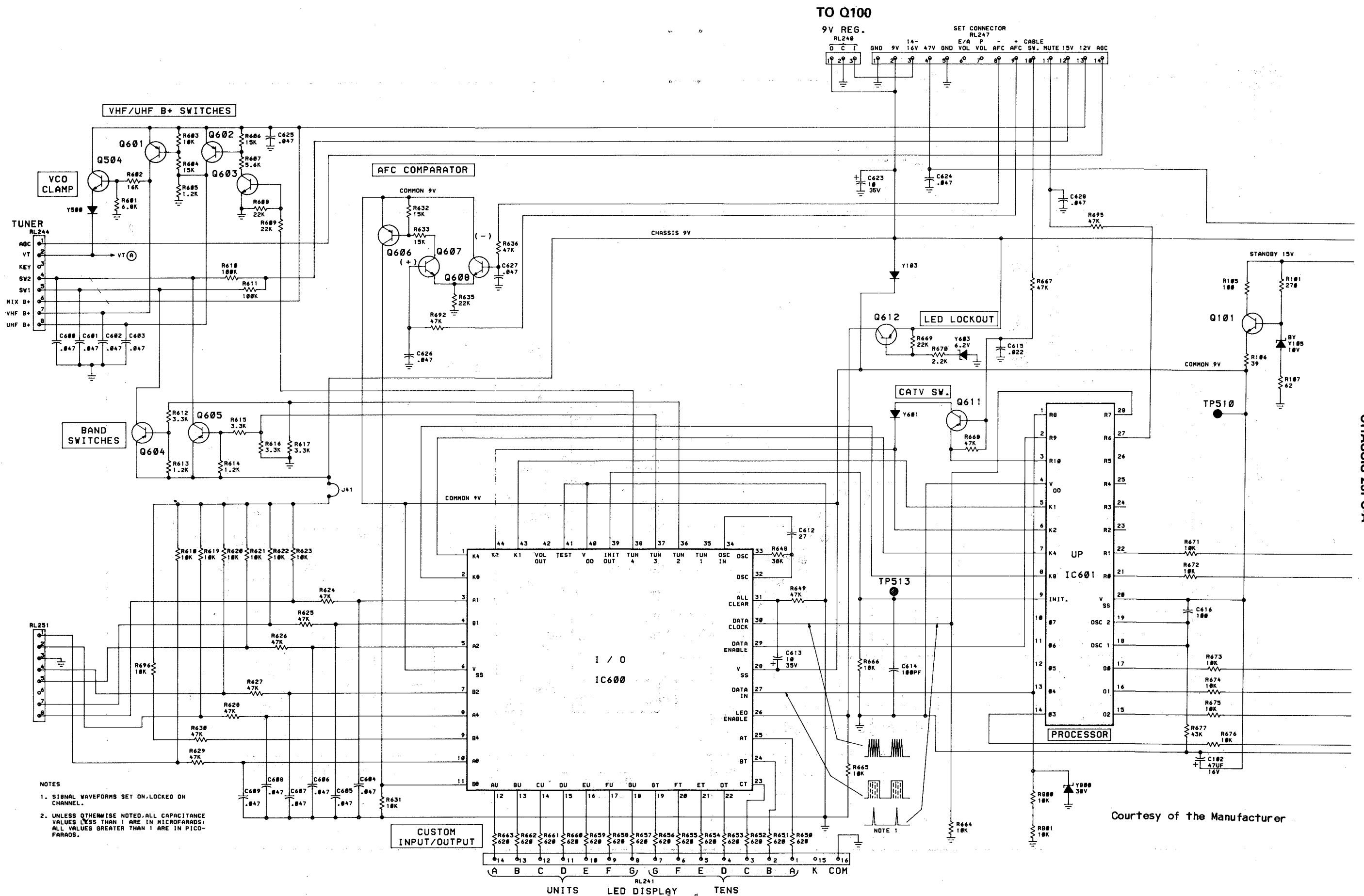
Courtesy of the Manufacturer

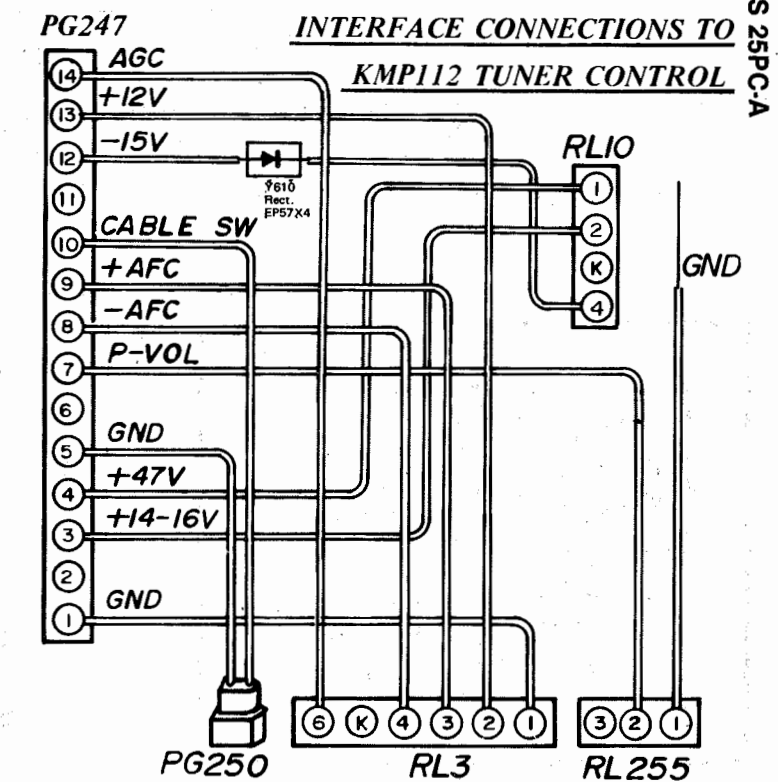
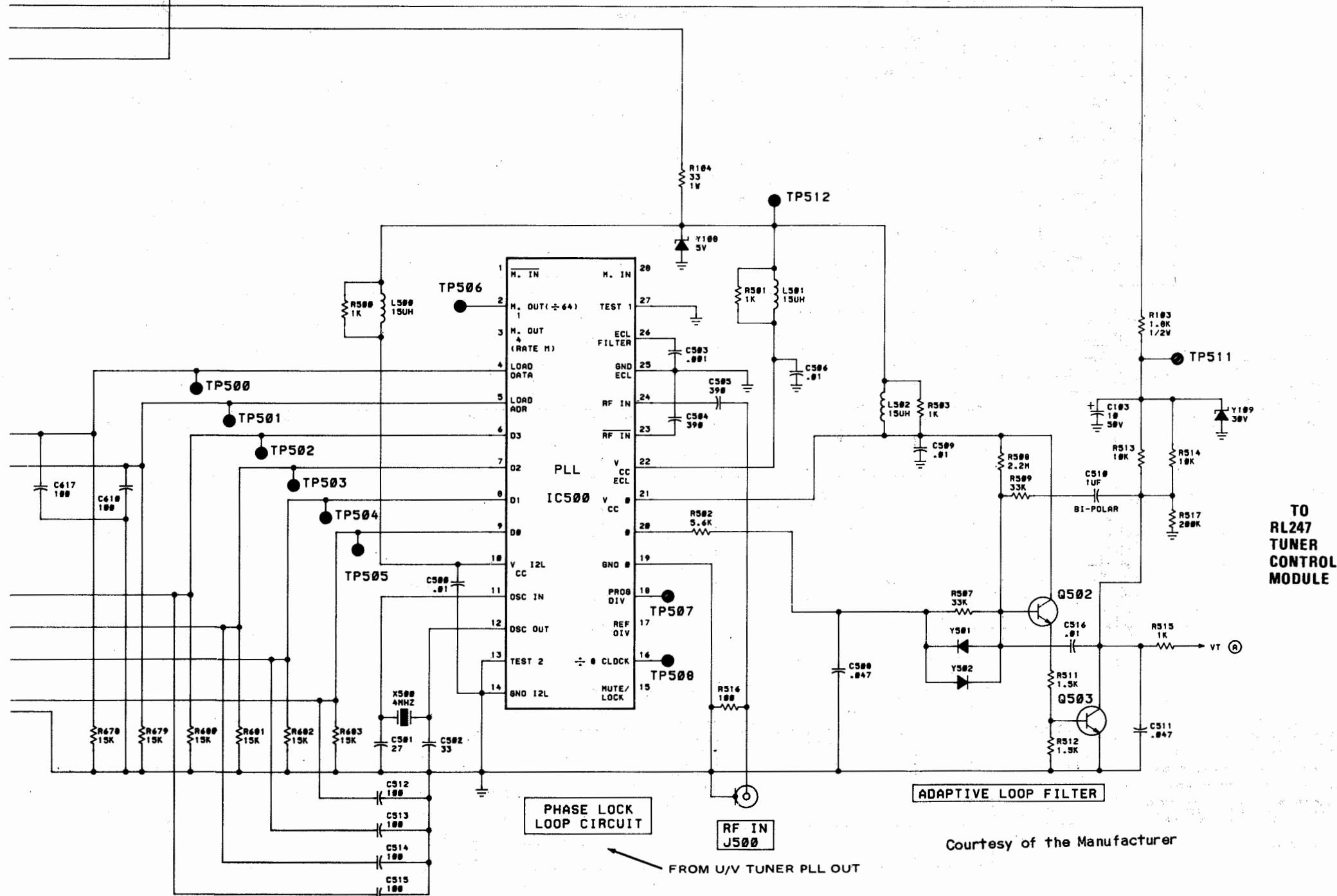
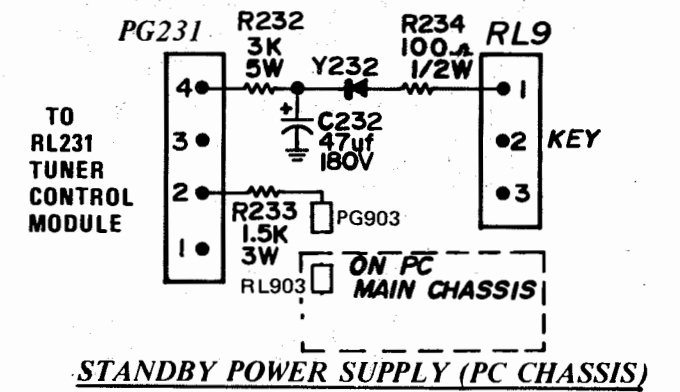
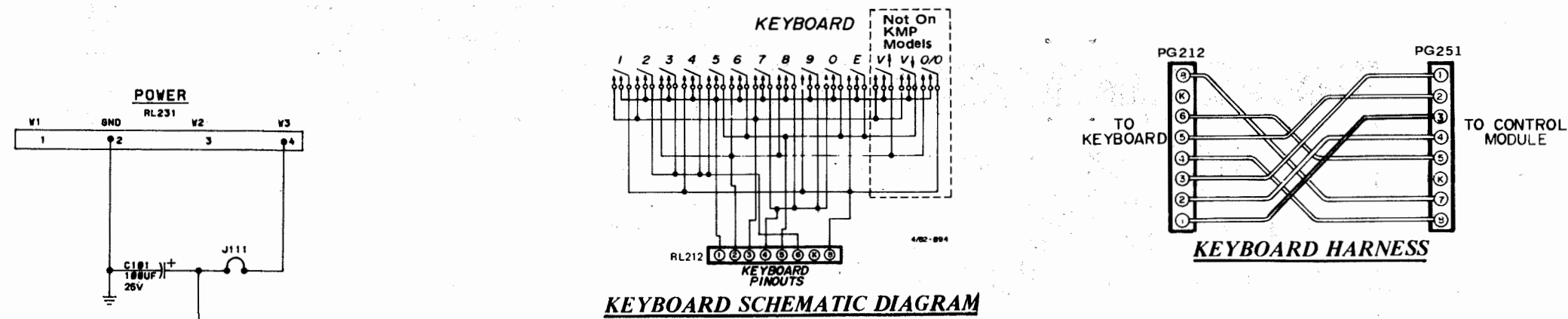
KMP112 TUNER CONTROL BOARD

KMP112 TUNER CONTROL BOARD



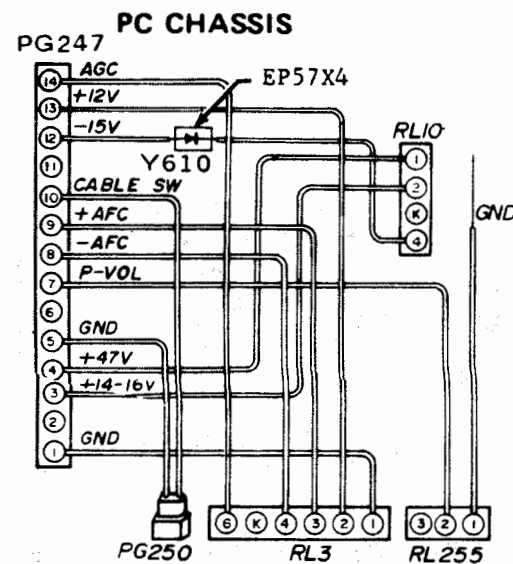




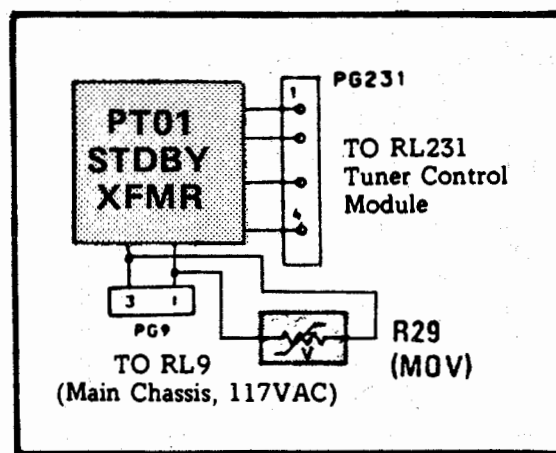
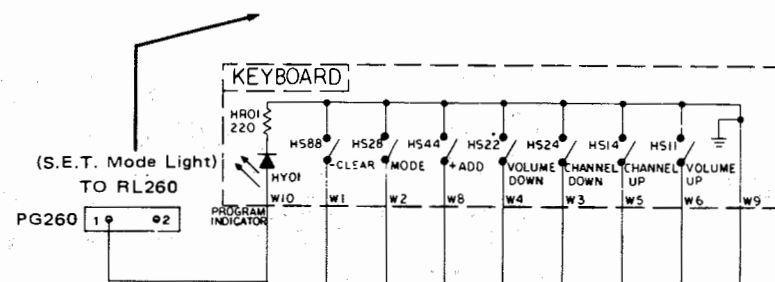


KMP112 TUNING SYSTEM (EP93X414 BOARD)

KMP112 TUNING SYSTEM (EP93X414 BOARD)



PC CHASSIS INTERFACE CONNECTION
TO SET-112 TUNER CONTROL MODULE

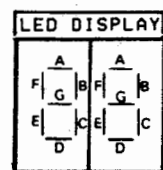
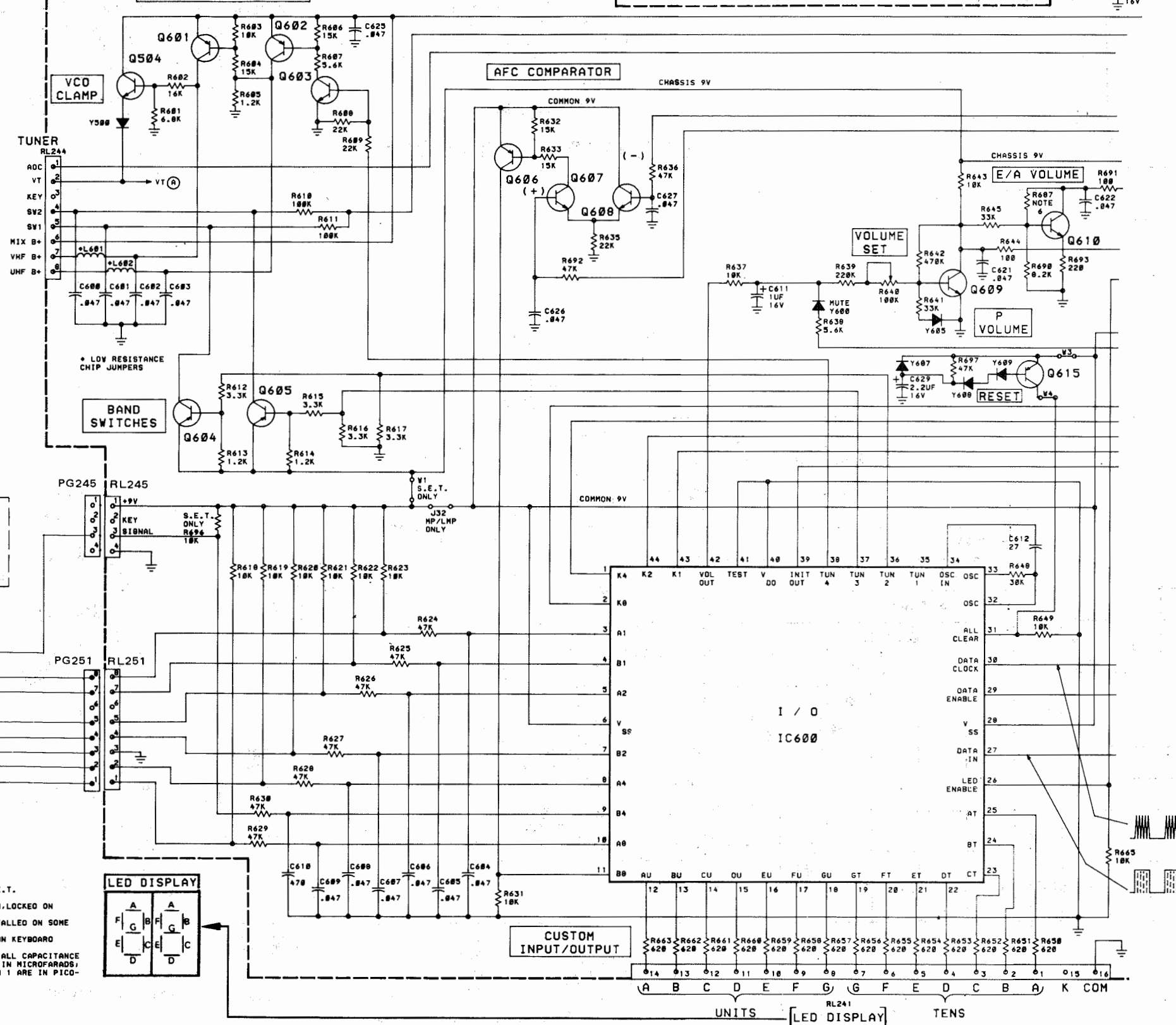


STANDBY TRANSFORMER

- NOTES
1. SELECT FOR:
TMS1100 43K FOR LMP/S.E.T.
TMS1400 38K FOR HP
 2. SIGNAL WAVEFORMS SET ON LOCKED ON CHANNEL.
 3. OPTION CIRCUIT NOT INSTALLED ON SOME MODELS.
 4. REMOVE Y602 FOR 5 BUTTON KEYBOARD ON MP.
 5. UNLESS OTHERWISE NOTED, ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MICROFARADS; ALL VALUES GREATER THAN 1 ARE IN PICO-FARADS.
 6. 36K-MP
22K-LMP/S.E.T.

SET112 TUNER CONTROL MODULE

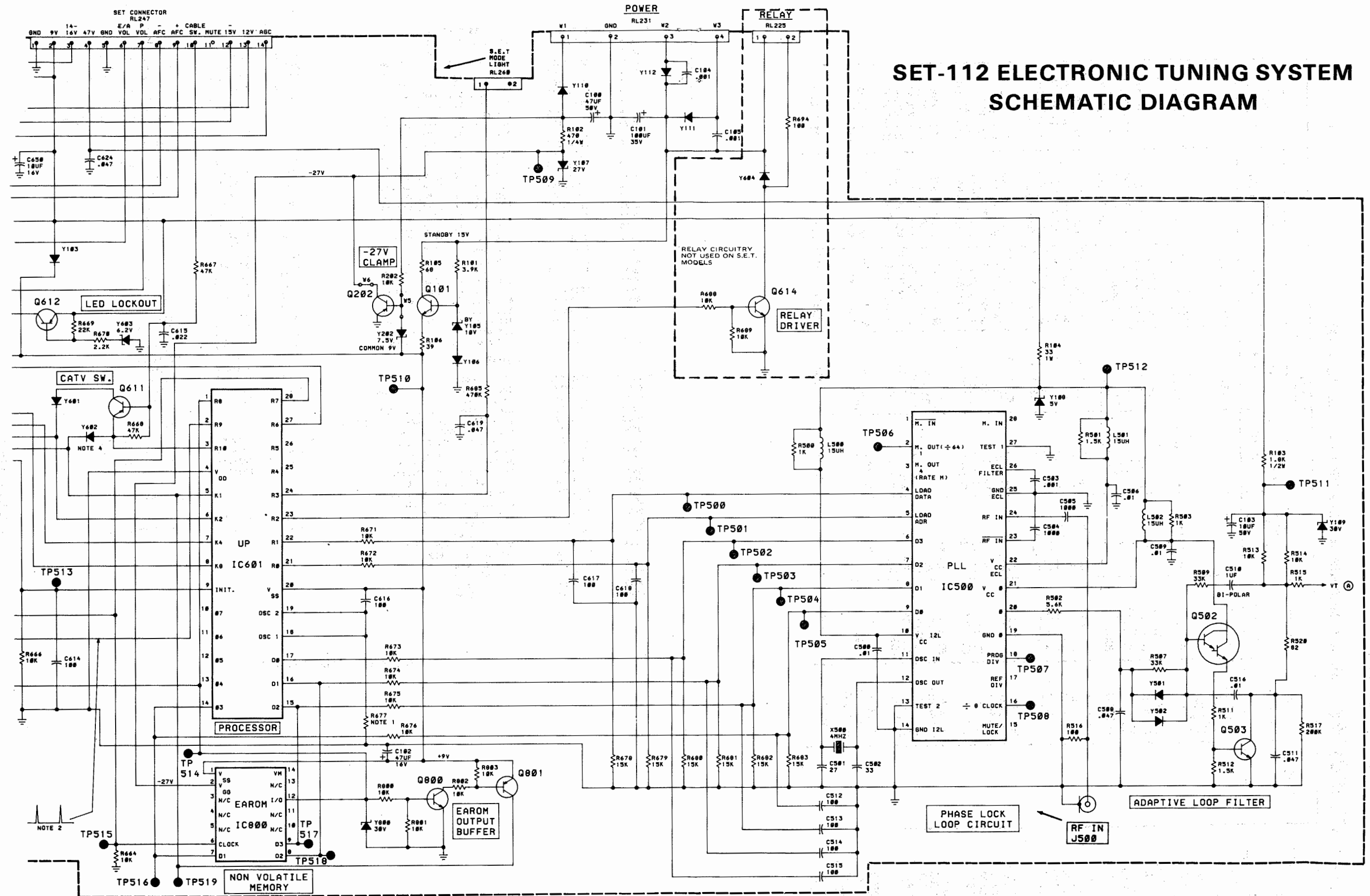
VHF/UHF B+ SWITCHES



Courtesy of the Manufacturer

SET112 TUNING SYSTEM

SET112 TUNING SYSTEM



SET112 TUNING SYSTEM

Courtesy of the Manufacturer

SET112 TUNING SYSTEM

SET 2255 FOLDER 2

SEMICONDUCTORS (Select replacement transistor for best results)

| REPLACEMENT DATA | | | | | | | ITEM No. | TYPE No. | MFR. PART No. | REPLACEMENT DATA | | | | |
|------------------|---------------------------|-------------------|--------------|--------------|------------------|-----------------|----------------|----------|---------------|------------------|----------|----------|----------|----------|
| EGG PART No. | GENERAL ELECTRIC PART No. | MOTOROLA PART No. | NTE PART No. | RCA PART No. | WORKMAN PART No. | ZENITH PART No. | | | | | | | | |
| IC101 | EP84X213 | EP84X213 | EP84X213 | EP84X213 | EP84X213 | EP84X213 | IC101 | | EP84X213 | EP84X213 | EP84X213 | EP84X213 | EP84X213 | EP84X213 |
| IC190 | EP84X216 | EP84X216 | EP84X216 | EP84X216 | EP84X216 | EP84X216 | IC190 | | EP84X216 | EP84X216 | EP84X216 | EP84X216 | EP84X216 | EP84X216 |
| IC300 | EP84X221 | EP84X221 | EP84X221 | EP84X221 | EP84X221 | EP84X221 | IC300 | | EP84X221 | EP84X221 | EP84X221 | EP84X221 | EP84X221 | EP84X221 |
| IC501 | EP84X215 | EP84X215 | EP84X215 | EP84X215 | EP84X215 | EP84X215 | IC501 | | EP84X215 | EP84X215 | EP84X215 | EP84X215 | EP84X215 | EP84X215 |
| IC901 | EP84X217 | EP84X217 | EP84X217 | EP84X217 | EP84X217 | EP84X217 | IC901 | | EP84X217 | EP84X217 | EP84X217 | EP84X217 | EP84X217 | EP84X217 |
| ICV10 | EP84X60 | EP84X60 | EP84X60 | EP84X60 | EP84X60 | EP84X60 | ICV10 | | EP84X60 | EP84X60 | EP84X60 | EP84X60 | EP84X60 | EP84X60 |
| Q105 | EP15X104 | EP15X104 | EP15X104 | EP15X104 | EP15X104 | EP15X104 | Q105 | | EP15X104 | EP15X104 | EP15X104 | EP15X104 | EP15X104 | EP15X104 |
| Q110 | EP15X87 | EP15X87 | EP15X87 | EP15X87 | EP15X87 | EP15X87 | Q110 | | EP15X87 | EP15X87 | EP15X87 | EP15X87 | EP15X87 | EP15X87 |
| Q190 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | Q190 | | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 |
| Q192 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | Q192 | | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 |
| Q200 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | Q200 | | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 |
| Q202 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | Q202 | | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 |
| Q204 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | Q204 | | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 |
| Q206 | EP15X83 | EP15X83 | EP15X83 | EP15X83 | EP15X83 | EP15X83 | Q206 | | EP15X83 | EP15X83 | EP15X83 | EP15X83 | EP15X83 | EP15X83 |
| Q207 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | Q207 | | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 |
| Q300 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | Q300 | | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 |
| Q404 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | Q404 | | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 |
| Q406 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | Q406 | | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 |
| Q408 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | Q408 | | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 | EP15X61 |
| Q501 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | Q501 | | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 | EP15X48 |
| Q601 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | Q601 | | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 |
| Q603 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | Q603 | | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 | EP15X105 |
| Q701 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | Q701 | | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 | EP15X19 |
| Q901 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | Q901 | | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 | EP15X88 |
| Q903 | EP15X91 | EP15X91 | EP15X91 | EP15X91 | EP15X91 | EP15X91 | Q903 | | EP15X91 | EP15X91 | EP15X91 | EP15X91 | EP15X91 | EP15X91 |
| Q905 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | Q905 | | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 | EP15X57 |
| Q1901 | EP15X218 | EP15X218 | EP15X218 | EP15X218 | EP15X218 | EP15X218 | Q1901 | | EP15X218 | EP15X218 | EP15X218 | EP15X218 | EP15X218 | EP15X218 |
| SCR903 | EP15X217 | EP15X217 | EP15X217 | EP15X217 | EP15X217 | EP15X217 | SCR903 | | EP15X217 | EP15X217 | EP15X217 | EP15X217 | EP15X217 | EP15X217 |
| SCR990 | | | | | | | SCR990 | | | | | | | |
| VQ10 thru VQ15 | | | | | | | VQ10 thru VQ15 | | | | | | | |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|----------------------------|
| R668 | EP14X193 | 47K ohm, 5%, 1/8W, Carbon |
| R669 | EP14X104 | 22K ohm, 5%, 1/8W, Carbon |
| R670 | EP14X250 | 2.2K ohm, 5%, 1/8W, Carbon |
| R671 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R672 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R673 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R674 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R675 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R676 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R677 | EP14X288 | 30K ohm, 5%, 1/8W, Carbon |
| R678 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R679 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R680 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R681 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R682 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R683 | EP14X285 | 15K ohm, 5%, 1/8W, Carbon |
| R685 | EP14X303 | 470 ohm, 5%, 1/8W, Carbon |
| R687 | Common | 36K ohm, 5%, 1/4W, Carbon |
| R688 | EP14X103 | 10K ohm, 5%, 1/8W, Carbon |
| R689 | EP14X284 | 10K ohm, 5%, 1/8W, Carbon |
| R690 | EP14X271 | 8.2K ohm, 5%, 1/8W, Carbon |
| R691 | ES14X70 | 100 ohm, 5%, 1/8W, Carbon |
| R692 | EP14X193 | 47K ohm, 5%, 1/8W, Carbon |
| R693 | Common | 220 ohm, 5%, 1/8W, Carbon |
| R694 | ES14X70 | 100 ohm, 5%, 1/8W, Carbon |
| R697 | EP14X193 | 47K ohm, 5%, 1/8W, Carbon |
| R800 | EP14X284 | 10K ohm, 5%, 1/8W, Carbon |
| R801 | EP14X284 | 10K ohm, 5%, 1/8W, Carbon |
| R802 | EP14X284 | 10K ohm, 5%, 1/8W, Carbon |
| R803 | EP14X284 | 10K ohm, 5%, 1/8W, Carbon |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------------------------------|
| Q101 | EP15X87 | Standby Power, NPN, Silicon |
| Q202 | EP15X48 | PNP, Silicon |
| Q502 | EP15X109 | Loop Filter Amp., NPN, Silicon |
| Q503 | EP15X87 | Loop Filter Amp., NPN, NPN, Silicon |
| Q504 | EP15X87 | VCO Clamp, NPN, Silicon |
| Q601 | EP15X57 | B+ Switch, PNP, Silicon |
| Q602 | EP15X57 | B+ Switch, PNP, Silicon |
| Q603 | EP15X87 | B+ Switch, NPN, Silicon |
| Q604 | EP15X48 | Band Switch, PNP, Silicon |
| Q605 | EP15X48 | Band Switch, PNP, Silicon |
| Q606 | EP15X48 | Comparator, PNP, Silicon |
| Q607 | EP15X88 | Comparator, NPN, Silicon |
| Q608 | EP15X88 | Comparator, NPN, Silicon |
| Q609 | EP15X88 | NPN, Silicon |
| Q610 | EP15X88 | NPN, Silicon |
| Q611 | EP15X48 | CATV Switch, PNP, Silicon |
| Q612 | EP15X48 | LED Lockout, PNP, Silicon |
| Q614 | EP15X87 | NPN, Silicon |
| Q615 | EP15X48 | PNP, Silicon |
| Q800 | EP15X87 | NPN, Silicon |
| Q801 | EP15X48 | PNP, Silicon |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|----------------------------|
| X500 | EP41X68 | CRYSTAL-Filter |
| IC100 | EP84X230 | 3 Terminal 9V Regulator |
| IC500 | EP84X220 | PLL/Prescale |
| IC600 | EP84X222 | Custom Interface |
| IC601 | EP84X231 | Microcomputer |
| IC800 | EP84X224 | Alterable Read Only Memory |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------|
| Y103 | EP57X4 | Rectifier |
| Y105 | EP16X155 | Zener |
| Y106 | ES16X27 | Silicon |
| Y107 | EP16X156 | Zener |
| Y108 | EP16X152 | Zener |
| Y109 | EP16X32 | Zener |
| Y110 | EP57X4 | Rectifier |
| Y111 | EP57X4 | Rectifier |
| Y112 | EP57X4 | Rectifier |
| Y202 | EP16X12 | 7.5V, Zener |
| Y500 | ES16X27 | Silicon |
| Y501 | ES16X27 | Silicon |
| Y502 | ES16X27 | Silicon |
| Y600 | ES16X27 | Silicon |
| Y601 | ES16X27 | Silicon |
| Y602 | ES16X27 | Silicon |
| Y603 | EP16X153 | Zener |
| Y604 | ES16X27 | Silicon |
| Y605 | ES16X27 | Silicon |
| Y607 | ES16X27 | Silicon |
| Y608 | ES16X27 | Silicon |
| Y609 | ES16X27 | Silicon |
| Y800 | EP16X32 | Zener |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-----------------|
| L500 | EP36X136 | CHOKE-15uh, 10% |
| L501 | EP36X136 | CHOKE-15uh, 10% |
| L502 | EP36X136 | CHOKE-15uh, 10% |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|---------------|
| R640 | EP49X476 | 100K ohm, 20% |

Courtesy of the Manufacturer

SET-112 TUNING SYSTEM

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|----------------------|
| * R29 | EP14X326 | VARISTOR-Metal Oxide |

INTEGRATED CIRCUITS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------------------|
| IC100 | EP84X230 | 3 Terminal 9V Regulator |

COIL & TRANSFORMER

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------------|
| L50 | ES36X82 | CHOKE-220uh, 10Z |
| * PT01 | EP88X43 | TRANSFORMER-Power |

MISCELLANEOUS

| REF. NO. | PART NO. | DESCRIPTION |
|----------------|----------------|-------------------------------|
| EP8X125 | | CABLE-SET112 Board To Tuner |
| RL7 | SEE MODEL PAGE | CHANNEL READOUT DISPLAY-Green |
| EP8X68 | | CONNECTOR-2 Pos. |
| RL9 | EP8X90 | CONNECTOR-3 Pos. |
| SEE MODEL PAGE | | KEYBOARD-Vol., Channel Select |
| EP93X451 | | SET112 TUNER CONTROL BOARD |
| * EP93X415 | | UHF/VHF TUNER |

SET-112 TUNER CONTROL CIRCUIT BOARD

EP93X451

CAPACITORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------------------------|
| C100 | EP31X45 | 47uf, 20Z, 50V, Elect. |
| C101 | EP31X162 | 100uf, 20Z, 25V, Elect. |
| C102 | EP31X163 | 47uf, 20Z, 25V, Elect. |
| C103 | EP31X150 | 10uf, 20Z, 50V, Elect. |
| C104 | ES22X6 | 1000pf, 5Z, 50V, NPO, Cer. Disc |
| C105 | ES22X6 | 1000pf, 5Z, 50V, NPO, Cer. Disc |
| C500 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C501 | EP18X187 | 27pf, 5Z, 50V, NPO, Cer. Disc |
| C502 | EP18X188 | 33pf, 5Z, 50V, N150 Cer. Disc |
| C503 | ES22X6 | 1000pf, 5Z, 50V, NPO, Cer. Disc |
| C504 | ES22X6 | 1000pf, 5Z, 50V, HiK, Cer. Disc |
| C505 | ES22X6 | 1000pf, 5Z, 50V, HiK, Cer. Disc |
| C506 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C508 | EP18X167 | .047uf, +80-20Z, 50V, HiK, Cer. Disc |
| C509 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C510 | EP31X164 | 1uf, 20Z, 50V, Bi-Polar, Elect. |
| C511 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C512 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C513 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C514 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C515 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C516 | EP25X131 | .01uf, 10Z, 50V, Polyester |
| C600 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C601 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C602 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C603 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C604 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C605 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C606 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C607 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C608 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C609 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C610 | EP18X204 | 470pf, 10Z, 50V, Cer. Disc |
| C611 | EP31X166 | 1uf, 20Z, 50V, Elect. |
| C612 | EP18X187 | 27pf, 5Z, 50V, NPO, Cer. Disc |
| C614 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C615 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C616 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C617 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C618 | EP18X269 | 100pf, 10Z, 50V, NPO, Cer. Disc |
| C619 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C621 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C622 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C623 | EP31X150 | 10uf, 20Z, 50V, Elect. |
| C624 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C625 | EP18X262 | .01uf, 10Z, 50V, SHiK, Cer. Disc |
| C626 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C627 | EP18X206 | .022uf, +80-20Z, 50V, HiK, Cer. Disc |
| C629 | EP31X173 | 2.2uf, 20Z, 50V, Elect. |
| C650 | EP31X149 | 10uf, 20Z, 35V, Elect. |

Courtesy of the Manufacturer

RESISTORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-----------------------------|
| R101 | Common | 3.9K ohm, 5Z, 1/8W, Carbon |
| R102 | ES14X58 | 470 ohm, 5Z, 1/4W, Carbon |
| R103 | EP14X131 | 1.8K ohm, 5Z, 1/2W, Carbon |
| R104 | EP14X209 | 33 ohm, 5Z, 1W, Metal Oxide |
| R105 | EP14X182 | 68 ohm, 5Z, 1/4W, Carbon |
| R106 | Common | 39 ohm, 5Z, 1/8W, Carbon |
| R202 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R500 | ES14X71 | 1K ohm, 5Z, 1/8W, Carbon |
| R501 | ES14X62 | 1.5K ohm, 5Z, 1/8W, Carbon |
| R502 | EP14X180 | 5.6K ohm, 5Z, 1/8W, Carbon |
| R503 | EP14X284 | 1K ohm, 5Z, 1/8W, Carbon |
| R507 | EP14X271 | 33K ohm, 5Z, 1/8W, Carbon |
| R509 | EP14X271 | 33K ohm, 5Z, 1/8W, Carbon |
| R511 | EP14X284 | 1K ohm, 5Z, 1/8W, Carbon |
| R512 | ES14X62 | 1.5K ohm, 5Z, 1/8W, Carbon |
| R513 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R514 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R515 | ES14X71 | 1K ohm, 5Z, 1/8W, Carbon |
| R516 | ES14X70 | 100 ohm, 5Z, 1/8W, Carbon |
| R517 | Common | 200K ohm, 5Z, 1/8W, Carbon |
| R520 | EP14X212 | 82 ohm, 5Z, 1/8W, Carbon |
| R601 | EP14X309 | 6.8K ohm, 5Z, 1/8W, Carbon |
| R602 | EP14X271 | 16K ohm, 5Z, 1/8W, Carbon |
| R603 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R604 | EP14X285 | 15K ohm, 5Z, 1/8W, Carbon |
| R605 | Common | 1.2K ohm, 5Z, 1/8W, Carbon |
| R606 | EP14X285 | 15K ohm, 5Z, 1/8W, Carbon |
| R607 | EP14X180 | 5.6K ohm, 5Z, 1/8W, Carbon |
| R608 | EP14X104 | 22K ohm, 5Z, 1/8W, Carbon |
| R609 | EP14X104 | 22K ohm, 5Z, 1/8W, Carbon |
| R610 | EP14X303 | 100K ohm, 5Z, 1/8W, Carbon |
| R611 | EP14X303 | 100K ohm, 5Z, 1/8W, Carbon |
| R612 | EP14X183 | 3.3K ohm, 5Z, 1/8W, Carbon |
| R613 | Common | 1.2K ohm, 5Z, 1/8W, Carbon |
| R614 | Common | 1.2K ohm, 5Z, 1/8W, Carbon |
| R615 | EP14X183 | 3.3K ohm, 5Z, 1/8W, Carbon |
| R616 | EP14X183 | 3.3K ohm, 5Z, 1/8W, Carbon |
| R617 | EP14X183 | 3.3K ohm, 5Z, 1/8W, Carbon |
| R618 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R619 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R620 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R621 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R622 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R623 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R624 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R625 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R626 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R627 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R628 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R629 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R630 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R631 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R632 | EP14X285 | 15K ohm, 5Z, 1/8W, Carbon |
| R633 | EP14X285 | 15K ohm, 5Z, 1/8W, Carbon |
| R635 | EP14X104 | 22K ohm, 5Z, 1/8W, Carbon |
| R636 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |
| R637 | EP14X103 | 10K ohm, 5Z, 1/8W, Carbon |
| R638 | EP14X180 | 5.6K ohm, 5Z, 1/8W, Carbon |
| R639 | EP14X303 | 220K ohm, 5Z, 1/8W, Carbon |
| R641 | EP14X271 | 33K ohm, 5Z, 1/8W, Carbon |
| R642 | EP14X133 | 470K ohm, 5Z, 1/8W, Carbon |
| R643 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R644 | ES14X70 | 100 ohm, 5Z, 1/8W, Carbon |
| R645 | EP14X271 | 33K ohm, 5Z, 1/8W, Carbon |
| R648 | Common | 30K ohm, 5Z, 1/8W, Carbon |
| R649 | ES14X71 | 1K ohm, 5Z, 1/8W, Carbon |
| R650 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R651 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R652 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R653 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R654 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R655 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R656 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R657 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R658 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R659 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R660 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R661 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R662 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R663 | EP14X238 | 620 ohm, 5Z, 1/8W, Carbon |
| R664 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R665 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R666 | EP14X284 | 10K ohm, 5Z, 1/8W, Carbon |
| R667 | EP14X193 | 47K ohm, 5Z, 1/8W, Carbon |

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS (Select replacement transistor for best results) (cont)

| REPLACEMENT DATA | | | | | |
|------------------|----------|----------------|--------------|---------------------------|-------------------|
| ITEM No. | TYPE No. | MFGR. PART No. | EGG PART No. | GENERAL ELECTRIC PART No. | MOTOROLA PART No. |
| Y190 | | EP57X4 | EGG552 | GE-511 | |
| Y192 | | EP57X4 | EGG552 | GE-511 | |
| Y194 | | EP16X58 | EGG5026A | GEZD-17 | IN5247B |
| Y202 | 1N4148 | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y204 | 1N4148 | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y206 | | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y232 | 1N4148 | EP57X4 | EGG552 | GE-511 | |
| Y300 | | EP16X147 | EGG5026A | GEZD-17 | IN5247B |
| Y350 | | EP16X58 | EGG5026A | GEZD-17 | IN5247B |
| Y352 | | EP16X58 | EGG5026A | GEZD-17 | IN5247B |
| Y354 | | EP16X58 | EGG5026A | GEZD-17 | IN5247B |
| Y370 | | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y382 | 1N4148 | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y402 | 1N4148 | EP16X58 | EGG5026A | GEZD-17 | IN5247B |
| Y501 | 1N4148 | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y503 | | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y601 | 1N4148 | ES16X27 | EGG519 | GE-514 | IN4935 |
| Y603 | | EP57X4 | EGG552 | GE-511 | |
| Y605 | | EP57X4 | EGG552 | GE-511 | |
| Y607 | | EP57X4 | EGG552 | GE-511 | |
| Y609 | | EP57X4 | EGG552 | GE-511 | |
| Y901 | | EP57X4 | EGG552 | GE-511 | |
| Y903 | | EP57X4 | EGG552 | GE-511 | |
| Y905 | | EP57X4 | EGG552 | GE-511 | |
| Y907 | | EP57X4 | EGG552 | GE-511 | |
| Y921 | | EP16X149 | EGG552 | GE-511 | |
| Y923 | | EP57X5 | EGG552 | GE-511 | |
| Y925 | | EP57X5 | EGG552 | GE-511 | |
| Y931,2 | | EU16X11 | EGG177 | GE-300 | IN4935 |
| # Y951 | | EP16X19 | EGG5011A | GEZD-5.6 | IN5232B |

SEMICONDUCTORS (Select replacement transistor for best results) (cont)

| ITEM No. | TYPE No. | MFR. PART No. | REPLACEMENT DATA | | | | | | |
|-----------|----------|---------------|------------------|---------------------------|-------------------|--------------|--------------|------------------|-----------------|
| | | | ECG PART No. | GENERAL ELECTRIC PART No. | MOTOROLA PART No. | NTE PART No. | RCA PART No. | WORKMAN PART No. | ZENITH PART No. |
| Y954 | 1N4148 | ES 16X27 | ECG519 | GE-514 | 1N4935 | NTE519 | SK3100/519 | WEP925/519 | 103-131 |
| Y955 | | EP57X5 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y957,8 | | EP16X148 | ECG5085A | GEZD-36 | 1N4753A | NTE5085A | SK36V/5085A | WEP1168/5085 | 103-270 |
| Y959 | | ES 16X27 | ECG519 | GE-514 | 1N4935 | NTE519 | SK3100/519 | WEP925/519 | 103-131 |
| Y961 | 1N4148 | ES 16X27 | ECG519 | GE-514 | 1N4935 | NTE519 | SK3100/519 | WEP925/519 | 103-131 |
| Y963 | 1N4148 | EP16X149 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y963A | | EP16X149 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y965 | | EU16X11 | ECG177 | GE-300 | 1N4935 | NTE177 | SK9091/177 | WEP1062/177 | 103-131 |
| Y990 | | ES 16X27 | ECG519 | GE-514 | 1N4935 | NTE519 | SK3100/519 | WEP925/519 | 103-131 |
| Y991 | | EP57X4 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y992 | 1N4148 | EP57X5 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y993 | | | | | | | | | |
| Y1903 | | EP57X5 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y1905 | | EP57X5 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y1907 | 1N4148 | EP57X5 | ECG552 | GE-511 | | NTE552 | SK9000/552 | WEP172/506 | 103-287 |
| Y110 thru | | EU16X11 | ECG177 | GE-300 | 1N4935 | NTE177 | SK9091/177 | WEP1062/177 | 103-131 |
| Y114 | | | | | | | | | |
| Y115 | | EP16X19 | ECG5011A | GEZD-5.6 | 1N5232B | NTE5011A | SK5A6/5011A | WEP1412/5011 | 103-Z9007 |

**For SAFETY use only equivalent replacement part.
Lead configuration may vary from original.**

WIRING DATA

| | | |
|-------------------------------------------|----------------|------------------------------------------|
| High Voltage Lead | Use BELDEN No. | 8866 (40 KV) |
| Shielded Hook-up Wire | Use BELDEN No. | 8401 or 8421 (Single-Conductor) |
| | | 8208 (Two-Conductor) |
| General-use Unshielded Hook-up Wire | Use BELDEN No. | 8529 (Solid) Available in 13 Colors |
| | | 8522 (Stranded) Available in 13 Colors |
| 300-Ohm Tuner Input Lead | Use BELDEN No. | 8225 |
| 75-Ohm Tuner Input Lead | Use BELDEN No. | 8241 |
| 300-Ohm Antenna Lead-In | Use BELDEN No. | 8275 (Foam Core) or 8285 (Foam Jacketed) |
| Antenna Rotor Cable | Use BELDEN No. | 8464 (Flat) or 8484 (Round) 4-Conductor |
| | | 8485 (Round) 5-Conductor |
| | | 8488 (Round) 8-Conductor |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|---------------|-------------------------------------|
| C616 | EP18X269 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C617 | EP18X269 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C618 | EP18X269 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C623 | EP31X149 | 10uf, 20%, 35V, Elect. |
| C624 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C625 | EP18X167 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C626 | EP18X167 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C627 | EP18X167 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C628 | EP18X167 | .047uf, +80-20%, 50V, HiK, Cer Disc |

RESISTORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------------------|
| R101 | CA5127 | 270 ohm, 5%, 1/8W, Carbon |
| R103 | CB5218 | 1.8K ohm, 5%, 1/2W, Carbon |
| R104 | EP14X209 | 33 ohm, 5%, 1W, Metal Oxide |
| R105 | CH5110 | 100 ohm, 5%, 1/8W, Carbon |
| R106 | CA5039 | 39 ohm, 5%, 1/8W, Carbon |
| R107 | CA5062 | 62 ohm, 5%, 1/8W, Carbon |
| R500 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R501 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R502 | CA5256 | 5.6K ohm, 5%, 1/8W, Carbon |
| R503 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R507 | CH5333 | 33K ohm, 5%, 1/8W, Carbon |
| R508 | CA5522 | 2.2 meg ohm, 10%, 1/4W, Carbon |
| R509 | CH5333 | 33K ohm, 5%, 1/8W, Carbon |
| R511 | CA5215 | 1.5K ohm, 5%, 1/8W, Carbon |
| R512 | CA5215 | 1.5K ohm, 5%, 1/8W, Carbon |
| R513 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R514 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R515 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R516 | CH5110 | 100 ohm, 5%, 1/8W, Carbon |
| R517 | CA5420 | 200K ohm, 5%, 1/8W, Carbon |
| R601 | CA5368 | 6.8K ohm, 5%, 1/8W, Carbon |
| R602 | CA5216 | 16K ohm, 5%, 1/8W, Carbon |
| R603 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R604 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R605 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R606 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R607 | CA5256 | 5.6K ohm, 5%, 1/8W, Carbon |
| R608 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R609 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R610 | CA5410 | 100K ohm, 5%, 1/8W, Carbon |
| R611 | CA5410 | 100K ohm, 5%, 1/8W, Carbon |
| R612 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R613 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R614 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R615 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R616 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R617 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R618 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R619 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R620 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R621 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R622 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R623 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R624 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R625 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R626 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R627 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R628 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R629 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R630 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R631 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R632 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R633 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R635 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R636 | CA5347 | 47K ohm, 5%, 1/8W, Carbon |
| R648 | CA5330 | 30K ohm, 5%, 1/8W, Carbon |
| R649 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R650 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R651 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R652 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R653 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R654 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R655 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R656 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R657 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |

Courtesy of the Manufacturer

| REF. NO. | PART NO. | |
|----------|----------|----------------------------|
| R658 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R659 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R660 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R661 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R662 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R663 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R664 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R665 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R666 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R667 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R668 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R669 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R670 | CH5222 | 2.2K ohm, 5%, 1/8W, Carbon |
| R671 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R672 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R673 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R674 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R675 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R676 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R677 | CA5343 | 43K ohm, 5%, 1/8W, Carbon |
| R678 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R679 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R680 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R681 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R682 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R683 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R692 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R695 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R696 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R800 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R801 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |

INTEGRATED CIRCUITS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|------------------|
| X500 | EP41X68 | CRYSTAL-Filter |
| IC500 | EP84X220 | PLL/Prescale |
| IC600 | EP84X222 | Custom Interface |
| IC601 | EP84X226 | Microcomputer |

TRANSISTORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------------------------|
| Q101 | EP15X87 | NPN, Silicon, Standby Power |
| Q502 | EP15X89 | NPN, Silicon, Loop Filter amp |
| Q503 | EP15X87 | NPN, Silicon, Loop Filter |
| Q504 | EP15X87 | NPN, Silicon, VCO Clamp |
| Q601 | EP15X57 | PNP, Silicon, B+ Switch |
| Q602 | EP15X57 | PNP, Silicon, B+ Switch |
| Q603 | EP15X87 | NPN, Silicon, B+ Switch |
| Q604 | EP15X48 | PNP, Silicon, Band Switch |
| Q605 | EP15X48 | PNP, Silicon, Band Switch |
| Q606 | EP15X48 | PNP, Silicon, Comparator |
| Q607 | EP15X88 | NPN, Silicon, Comparator |
| Q608 | EP15X88 | NPN, Silicon, Comparator |
| Q611 | EP15X48 | PNP, Silicon, CATV Switch |
| Q612 | EP15X48 | PNP, Silicon, LED Lockout |

DIODES

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-----------------|
| Y103 | EP57X4 | Rectifier |
| Y105 | EP16X155 | Zener, 10 Volt |
| Y108 | EP16X152 | Zener, 5 Volt |
| Y109 | EP16X32 | Zener, 30 Volt |
| Y500 | ES16X27 | Silicon |
| Y501 | ES16X27 | Silicon |
| Y502 | ES16X27 | Silicon |
| Y601 | ES16X27 | Silicon |
| Y603 | EP16X153 | Zener, 6.2 Volt |
| Y800 | EP16X32 | Zener, 30 Volt |

COILS

| REF. NO | PART NO. | DESCRIPTION |
|---------|----------|-----------------|
| L500 | EP36X136 | CHOKE-15uh, 10% |
| L501 | EP36X136 | CHOKE-15uh, 10% |
| L502 | EP36X136 | CHOKE-15uh, 10% |

| INTEGRATED CIRCUITS | | |
|---------------------|----------|---------------------------|
| REF. NO. | PART NO. | DESCRIPTION |
| R675 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R676 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R677 | Common | 43K ohm, 5%, 1/8W, Carbon |
| R678 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R679 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R680 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R681 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R682 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R683 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R692 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R695 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R696 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R697 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R800 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R801 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |

| TRANSISTORS | | |
|-------------|----------|-------------------------------|
| REF. NO. | PART NO. | DESCRIPTION |
| Q101 | EP15X87 | Standby Power, NPN, Silicon |
| Q502 | EP15X89 | Loop Filter Amp, NPN, Silicon |
| Q503 | EP15X87 | Loop Filter Amp, NPN, Silicon |
| Q504 | EP15X87 | VCO Clamp, NPN, Silicon |
| Q601 | EP15X57 | B+ Switch, PNP, Silicon |
| Q602 | EP15X57 | B+ Switch, PNP, Silicon |
| Q603 | EP15X87 | B+ Switch, NPN, Silicon |
| Q604 | EP15X48 | Band Switch, PNP, Silicon |
| Q605 | EP15X48 | Band Switch, PNP, Silicon |
| Q606 | EP15X48 | Comparator, PNP, Silicon |
| Q607 | EP15X88 | Comparator, NPN, Silicon |
| Q608 | EP15X88 | Comparator, NPN, Silicon |
| Q611 | EP15X48 | CATV Switch, PNP, Silicon |
| Q612 | EP15X48 | LED Lockout, PNP, Silicon |
| Q615 | EP15X48 | PNP, Silicon |

| KMP112 TUNING SYSTEM | | |
|----------------------|----------|--------------------------------|
| CAPACITORS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| C232 | EP31X147 | 47uf, +50-10%, 180V, Elect. |
| RESISTORS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| R232 | EP14X327 | 3K ohm, 5%, 5W, Flame Proof |
| R233 | EP14X230 | 1.5K ohm, 5%, 3W, Flame Proof |
| R234 | CB5110 | 100 ohm, 5%, 1/2W, Carbon |
| TRANSISTORS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| Q100 | ES15X125 | NPN, Silicon |
| DIODE | | |
| REF. NO. | PART NO. | DESCRIPTION |
| Y232 | EP57X4 | Rectifier, Silicon |
| MISCELLANEOUS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| EP92X107 | | BRACKET-KMP Mounting, Plastic |
| EP8X60 | | CABLE-Antenna Bracket To Tuner |
| EP8X125 | | CABLE-KMP Board To Tuner |
| EP41X135 | | CHANNEL NUMBER DISPLAY READOUT |
| RL3 | EP8X71 | CONNECTOR-6 Pos. |
| RL9 | EP8X90 | CONNECTOR-3 Pos. |
| RL10 | EP8X94 | CONNECTOR-4 Pos. |
| RL212 | EP8X92 | CONNECTOR-8 Pos. |
| RL250 | EP8X43 | CONNECTOR-2 Pins |
| RL251 | EP8X92 | CONNECTOR-8 Pos. |
| | EP93X185 | KEYBOARD-Channel Select |
| | EP93X414 | KMP112 CONTROL BOARD-Complete |
| | EP34X41 | SOCKET-Q100 |

| INTEGRATED CIRCUITS | | |
|---------------------|----------|------------------|
| REF. NO. | PART NO. | DESCRIPTION |
| X500 | EP41X68 | CRYSTAL-Filter |
| IC500 | EP84X220 | PLL/Prescale |
| IC600 | EP84X222 | Custom Interface |
| IC601 | EP84X226 | Microcomputer |
| DIODES | | |
| REF. NO. | PART NO. | DESCRIPTION |
| Y103 | EP57X4 | Rectifier |
| Y105 | EP16X155 | 10 Volt, Zener |
| Y108 | EP16X152 | 5 Volt, Zener |
| Y109 | EP16X32 | 30 Volt, Zener |
| Y500 | ES16X27 | Silicon |
| Y501 | ES16X27 | Silicon |
| Y502 | ES16X27 | Silicon |
| Y601 | ES16X27 | Silicon |
| Y603 | EP16X153 | 6.2 Volt, Zener |
| Y607 | ES16X27 | Silicon |
| Y608 | ES16X27 | Silicon |
| Y609 | ES16X27 | Silicon |
| Y800 | EP16X32 | 30 Volt, Zener |
| COILS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| L500 | EP36X136 | CHOKE-15uh, 10% |
| L501 | EP36X136 | CHOKE-15uh, 10% |
| L502 | EP36X136 | CHOKE-15uh, 10% |

| KMP112 CONTROL BOARD ASM | | |
|--------------------------|------------------|-------------------------------------|
| EP93X414 | | |
| CAPACITORS | | |
| REF. NO. | PART NO. | DESCRIPTION |
| C101 | EP31X162 | 100uf, 20%, 25V, Elect. |
| C102 | ES31X31 | 47uf, 20%, 16V, Elect. |
| C103 | EP31X150 | 10uf, 20%, 50V, Elect. |
| C500 | CC .01U50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C501 | EP18X187 | 27pf, 5%, 50V, NPO, Cer. Disc |
| C502 | CC 33P50V5 | 33pf, 5%, 50V, N150 Cer. Disc |
| C503 | ES22X6 | 1000pf, 5%, 50V, NPO, Cer. Disc |
| C504 | EP18X270 | 390pf, 5%, 50V, NPO, Cer. Disc |
| C505 | EP18X270 | 390pf, 5%, 50V, NPO, Cer. Disc |
| C506 | CC .01U50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C508 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C509 | CC .01U50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C510 | EP31X164 | luf, 20%, 25V, Bi-Polar, Elect. |
| C511 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C512 | CC 100P50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C513 | CC 100P50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C514 | CC 100P50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C515 | CC 100P50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C516 | CC .01U50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C600 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C601 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C602 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C603 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C604 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C605 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C606 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C607 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C608 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C609 | CC .047U50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C612 | EP18X187 | 27pf, 10%, 50V, NPO, Cer. Disc |
| C613 | EP31X149 | 10uf, 20%, 35V, Elect. |
| C614 | EP18X269 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C615 | CC .022U50V80-20 | .022uf, +80-20%, 50V, HiK, Cer Disc |

Courtesy of the Manufacturer

KMP112 TUNING SYSTEM (EP93X446 and EP93X414 BOARD)

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | MFGR. PART No. |
|----------|-------------|----------------|
| C30 | 47 25V | EP31X45 |
| C90 | 10 35V | EP31X149 |
| C95 | 10 35V | EP31X149 |
| C105 | .47 50V 20% | EP31X138 |
| C106 | 470 16V | EP31X159 |
| C119 | 4.7 35V 20% | EP31X11 |
| C125 | 47 10V 20% | EP31X45 |
| C185 | 10 35V 20% | EP31X149 |
| C189 | 10 35V 20% | EP31X149 |
| C190 | 10 35V 20% | EP31X149 |
| C194 | 2.2 250V | EP31X152 |
| C196 | 22 160V | EP31X153 |
| C197 | 4.7 35V 20% | EP31X11 |
| C198 | 10 35V 20% | EP31X149 |
| C202 | 10 35V 20% | EP31X149 |
| C206 | 22 25V 20% | EP31X44 |
| C216 | 10 35V 20% | EP31X149 |
| C218 | 1 50V 20% | EP31X78 |
| C232 | 47 250V | EP31X147 |
| C234 | 470 25V 10% | EP31X59 |
| C244 | 10 35V 20% | EP31X150 |
| C256 | 22 25V 20% | EP31X44 |
| C300 | 33 10V | EW31X116 |
| C302 | 1 16V 10% | EP31X49 |
| C328 | 10 35V 20% | EP31X149 |
| C336 | 1 50V 20% | EP31X78 |
| C391 | 1 50V 20% | EP31X78 |
| C392 | 10 35V 20% | EP31X149 |
| C395 | 1 50V 20% | EP31X78 |
| C416 | 10 50V 10% | EP31X35 |
| C501 | 47 16V 10% | EP31X45 |
| C505 | 2.2 16V 20% | ES31X34 |
| | 1 16V 10% | EP31X49 |

| ITEM No. | RATING | MFGR. PART No. |
|----------|--------------|----------------|
| C513 | 10 35V 20% | EP31X149 |
| C603 | 10 35V 20% | EP31X149 |
| C607 | 220 16V 20% | EP31X141 |
| C609 | 1 50V 20% | EP31X78 |
| C614 | 4.7 50V 20% | EP31X11 |
| C615 | 2.7 160V 20% | EP31X151 |
| C619 | 470 10V 20% | EP31X154 |
| C621 | 100 50V | EP31X140 |
| C623 | 1 16V 10% | EP31X49 |
| # C902 | 680 180V | EP31X165 |
| | 330 180V | EP31X158 |
| # C904 | 100 160V 10% | EP31X109 |
| # C906 | 10 180V | EP31X156 |
| C925 | 470 25V | EP31X159 |
| C931 | 220 100V | EP31X157 |
| C939 | 4.7 160V | EP31X155 |
| C943 | 47 16V 20% | EP31X45 |
| C961 | 10 35V 20% | EP31X35 |
| | 220 10V 10% | EP31X141 |
| C967 | 1 50V 20% | EP31X78 |
| C991 | 3.3 160V | EP31X160 |
| # C992 | 2.2 35V | (1) |
| C993 | 100 10V 20% | EP31X55 |
| C1918 | 47 | (2) |
| CV14 | 10 16V 10% | EP31X35 |
| CV21 | 47 25V 10% | EP31X45 |
| CV24 | 220 16V 10% | EP31X141 |
| CV26 | 47 16 10% | EP31X45 |
| CV28 | 47 16V 10% | EP31X45 |
| CV33 | 100 10V 10% | EP31X55 |
| CV34 | 47 16V 10% | EP31X45 |

For SAFETY use only equivalent replacement part.
(1) Part of High Voltage Shutdown, Part Number EP62X167.
(2) Part of LDR Board, Part Number EP41X144.

CAPACITORS

| ITEM No. | RATING | MFGR. PART No. |
|----------|----------------|----------------|
| C62 | .01 50V | ES25X22 |
| C101 | 560 50V 10% | EP18X205 |
| C102 | 560 50V 10% | EP18X205 |
| C103 | .01 50V | EU22X216 |
| C104 | .001 500V 10% | EP18X220 |
| C107 | 27 50V 5% | EP18X187 |
| C108 | 68 50V 5% | EP18X191 |
| C109 | 120 NPO 50V 5% | EP18X159 |
| C110 | .001 500V 10% | EP18X220 |
| C111 | 62 NPO 50V 5% | EP18X136 |
| C112 | 820 50V 10% | EP18X180 |
| C113 | .01 50V 10% | EP22X32 |
| C114 | 68 50V 5% | EP18X191 |
| C115 | 13 NPO 50V 5% | EP18X101 |
| C116 | .01 50V | EU22X216 |
| C117 | .01 50V | EU22X216 |
| C118 | .01 50V | EU22X216 |
| C120 | 120 50V 10% | ES22X208 |
| C121 | .01 50V | EU22X216 |
| C122 | 5pF | |
| C124 | 22 NPO 50V 10% | EP18X186 |
| C126 | .01 50V | EU22X216 |
| C127 | .01 50V | EU22X216 |
| C135 | .001 500V 10% | EP18X220 |

| ITEM No. | RATING | MFGR. PART No. |
|----------|----------------|----------------|
| C136 | .001 500V 10% | EP18X220 |
| C137 | .001 500V 10% | EP18X220 |
| C139 | .001 500V 10% | EP18X220 |
| C140 | .001 500V 10% | EP18X220 |
| C142 | .001 500V | EP18X259 |
| C180 | 47 50V 5% | EP18X189 |
| C182 | 47 50V 5% | ES18X82 |
| C183 | .047 50V 10% | EP25X87 |
| C184 | .01 50V | EU22X216 |
| C186 | .022 50V 10% | EP25X130 |
| C187 | .001 500V 10% | EP18X220 |
| C188 | .033 200V 10% | EP25X146 |
| C191 | .015 25V 10% | EP18X170 |
| C192 | .001 500V 10% | EP18X220 |
| C193 | 150 NPO 50V 5% | EP18X192 |
| C195 | 5.6pF 50V 10% | EP18X182 |
| C199 | .01 25V | EP18X169 |
| C200 | .0015 50V 10% | EP18X212 |
| C204 | .01 25V | EP18X169 |
| C205 | .01 50V | EP22X32 |
| C208 | .047 50V | EP18X167 |
| C210 | 120 NPO 50V 5% | EP18X159 |
| C236 | .01 25V | EP18X169 |
| C240 | 18 500V 10% | ES18X56 |

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS (cont)

| ITEM No. | RATING | MFGR. PART No. |
|----------|-----------------|----------------|
| C250 | .1 50V | EU22X216 |
| C306 | .01 50V | EP18X122 |
| C308 | .01 50V | EU22X216 |
| C312 | .0022 NPO 25V | EP18X198 |
| C314 | 220 NPO 50V 10% | EP18X202 |
| C316 | 39 NPO 50V 5% | EU18X9 |
| C320 | 30 50V 5% | EP18X219 |
| C322 | 27 50V 5% | EP18X187 |
| C326 | .033 50V | EP25X124 |
| C330 | 36 NPO 50V 5% | EP18X32 |
| C334 | 100 50V 5% | EP18X194 |
| C350 | 270 NPO 50V 10% | EP18X203 |
| C352 | 270 NPO 50V 10% | EP18X203 |
| C354 | 270 NPO 50V 10% | EP18X203 |
| C370 | .047 50V | EP25X87 |
| C372 | 180 50V 10% | EP18X223 |
| C373 | .01 NPO 25V | EP18X169 |
| C390 | .001 500V | EP18X220 |
| C393 | .001 500V | EP18X220 |
| C394 | .001 500V | EP18X220 |
| C403 | .01 500V | EU22X216 |
| C404 | 820 50V | EP18X180 |
| C406 | .001 50V | EP18X81 |
| C408 | 820 50V | EP18X180 |
| C490 | .0047 2KV | EP18X267 |
| C503 | .0056 100V 5% | EP25X149 |
| C506 | .0068 50V 10% | EP25X150 |
| C507 | .047 50V 10% | EP25X87 |
| C509 | .015 50V 10% | EP25X127 |
| C512 | .22 50V 10% | EP25X95 |
| C514 | 330 50V 10% | EP18X217 |
| C515 | .0056 50V 10% | EP25X94 |
| C517 | .047 50V 10% | EP25X87 |
| C521 | .0068 50V 10% | EP25X87 |
| C523 | .1 50V | EP25X160 |
| C601 | .033 50V 10% | EP25X77 |
| C605 | .0068 50V 10% | EP25X124 |
| C611 | .022 50V 10% | EP18X229 |
| C613 | 180 NPO 50V 5% | EP25X130 |
| C617 | .0047 50V | EP18X223 |
| C701 | .0033 200V 10% | EP18X264 |
| C703 | .0033 200V 10% | EP25X110 |
| C705 | .027 100V 10% | EP18X217 |
| C706 | .033 200V | EP25X148 |
| C900 | .1 125V 10% | EP25X146 |
| C901 | .001 1KV | EP25X147 |
| C903 | .001 1KV | EP18X220 |
| C905 | .001 1KV | EP18X220 |
| C907 | .001 1KV | EP18X220 |

For SAFETY use only equivalent replacement part.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

| ITEM NO. | FUNCTION | RESISTANCE | MFGR. PART NO. | NOTES |
|----------|-------------------|------------|----------------|-------|
| R116 | RF AGC | 5000 | EP49X463 | |
| R124 | IF AGC | 5000 | EP49X463 | |
| R214 | Sharpness | 1000 | EP49X464 | |
| R262 | Brightness Center | 5000 | EP49X463 | |
| R330 | APC | 50K | EP49X465 | |
| R444 | Red Drive | 150 | EP49X469 | |
| R446 | Green Drive | 150 | EP49X469 | |
| R448 | Blue Drive | 150 | EP49X469 | |
| R474 | Red Cutoff | 5000 | EP49X470 | |
| R476 | Green Cutoff | 5000 | EP49X470 | |

KMP112 TUNING SYSTEM

| REF. NO. | PART NO. | DESCRIPTION |
|-----------|----------|-------------------------------|
| C232 | EP31X147 | 47uf, +50-10%, 180V, Elect. |
| RESISTORS | | |
| R232 | EP14X327 | 3K ohm, 5%, 5W, Flame Proof |
| R233 | EP14X230 | 1.5K ohm, 5%, 3W, Flame Proof |
| R234 | CB5110 | 100 ohm, 5%, 1/2W, Carbon |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-------------------------|
| IC100 | EP84X230 | 3 Terminal 9V Regulator |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------|
| Y232 | EP57X4 | Rectifier, Silicon |

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------------------|
| RL3 | EP92X107 | BRACKET-KMP Mounting, Plastic |
| RL9 | EP8X60 | CABLE-Antenna Bracket To Tuner |
| RL10 | EP8X125 | CABLE-KMP Board To Tuner |
| RL212 | EP41X135 | CHANNEL NUMBER DISPLAY READOUT |
| RL250 | EP8X71 | CONNECTOR-6 Pos. |
| RL251 | EP8X90 | CONNECTOR-3 Pos. |
| | EP8X94 | CONNECTOR-4 Pos. |
| | EP8X92 | CONNECTOR-8 Pos. |
| | EP8X43 | CONNECTOR-2 Pins |
| | EP8X92 | CONNECTOR-8 Pos. |
| | EP93X185 | KEYBOARD-Channel Select |
| | EP93X446 | KMP112 CONTROL BOARD-Complete |

KMP112 CONTROL BOARD ASM

EP93X446

| REF. NO. | PART NO. | DESCRIPTION |
|----------|--------------|-------------------------------------|
| C101 | EP31X162 | 100uf, 20%, 25V, Elect. |
| C102 | ES31X31 | 47uf, 20%, 16V, Elect. |
| C103 | EP31X150 | 10uf, 20%, 50V, Elect. |
| C500 | CC.01u50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C501 | EP18X187 | 27pf, 5%, 50V, NPO, Cer. Disc |
| C502 | CC33p50V5 | 33pf, 5%, 50V, N150 Cer. Disc |
| C503 | ES22X6 | 1000pf, 5%, 50V, NPO, Cer. Disc |
| C504 | ES22X6 | 1000pf, 5%, 50V, NPO, Cer. Disc |
| C505 | ES22X6 | 1000pf, 5%, 50V, NPO, Cer. Disc |
| C506 | CC.01u50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C508 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C509 | CC.01u50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C510 | EP31X164 | 1uf, 20%, 25V, Bi-Polar, Elect. |
| C511 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C512 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C513 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C514 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C515 | CC.01u50V10 | .01uf, 10%, 50V, NPO, Cer. Disc |
| C516 | CC.01u50V10 | .01uf, 10%, 50V, SHIK, Cer. Disc |
| C600 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C601 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C602 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C603 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C604 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C605 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C606 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C607 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C608 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C609 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C612 | EP18X187 | 27pf, 10%, 50V, NPO, Cer. Disc |
| C614 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C615 | CC.022u50V20 | .022uf, +80-20%, 50V, HiK, Cer Disc |
| C616 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C617 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C618 | CC100p50V10 | 100pf, 10%, 50V, NPO, Cer. Disc |
| C623 | EP31X149 | 10uf, 20%, 35V, Elect. |
| C624 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C625 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C626 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C627 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C628 | CC.047u50V10 | .047uf, +80-20%, 50V, HiK, Cer Disc |
| C629 | EP31X173 | 2.2uf, 20%, 50V, Elect. |
| C650 | EP31X149 | 10uf, 20%, 35V, Elect. |

RESISTORS

| REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|-----------------------------|
| R101 | CA5127 | 270 ohm, 5%, 1/8W, Carbon |
| R103 | CB5218 | 1.8K ohm, 5%, 1/2W, Carbon |
| R104 | EP14X209 | 33 ohm, 5%, 1W, Metal Oxide |
| R105 | CH5110 | 100 ohm, 5%, 1/8W, Carbon |
| R106 | CA5039 | 39 ohm, 5%, 1/8W, Carbon |
| R107 | CA5210 | 62 ohm, 5%, 1/8W, Carbon |
| R500 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R501 | CA5215 | 1.5K ohm, 5%, 1/8W, Carbon |
| R502 | CA5256 | 5.6K ohm, 5%, 1/8W, Carbon |
| R503 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R507 | CH5333 | 33K ohm, 5%, 1/8W, Carbon |
| R509 | CH5333 | 33K ohm, 5%, 1/8W, Carbon |
| R511 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R512 | CA5215 | 1.5K ohm, 5%, 1/8W, Carbon |
| R513 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R514 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R515 | CH5210 | 1K ohm, 5%, 1/8W, Carbon |
| R516 | CH5110 | 100 ohm, 5%, 1/8W, Carbon |
| R517 | CA5420 | 200K ohm, 5%, 1/8W, Carbon |
| R520 | CH5082 | 82 ohm, 5%, 1/8W, Carbon |
| R601 | CA5368 | 6.8K ohm, 5%, 1/8W, Carbon |
| R602 | CA5216 | 16K ohm, 5%, 1/8W, Carbon |
| R603 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R604 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R605 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R606 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R607 | CA5256 | 5.6K ohm, 5%, 1/8W, Carbon |
| R608 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R609 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R610 | CA5322 | 100K ohm, 5%, 1/8W, Carbon |
| R611 | CA5322 | 100K ohm, 5%, 1/8W, Carbon |
| R612 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R613 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R614 | CH5212 | 1.2K ohm, 5%, 1/8W, Carbon |
| R615 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R616 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R617 | CH5233 | 3.3K ohm, 5%, 1/8W, Carbon |
| R618 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R619 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R620 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R621 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R622 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R623 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R624 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R625 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R626 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R627 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R628 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R629 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R630 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R631 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R632 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R633 | CA5315 | 15K ohm, 5%, 1/8W, Carbon |
| R635 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R636 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R648 | CA5330 | 30K ohm, 5%, 1/8W, Carbon |
| R649 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R650 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R651 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R652 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R653 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R654 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R655 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R656 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R657 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R658 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R659 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R660 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R661 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R662 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R663 | CA5162 | 620 ohm, 5%, 1/8W, Carbon |
| R664 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R665 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R666 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R667 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R668 | CH5347 | 47K ohm, 5%, 1/8W, Carbon |
| R669 | CA5322 | 22K ohm, 5%, 1/8W, Carbon |
| R670 | CH5222 | 2.2K ohm, 5%, 1/8W, Carbon |
| R671 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R672 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R673 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |
| R674 | CH5310 | 10K ohm, 5%, 1/8W, Carbon |

Courtesy of the Manufacturer

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

CABINETS & CABINET PARTS (When ordering specify model, chassis & color) (cont)

| ITEM | PART No. | PART No. | PART No. | PART No. |
|-----------------------------|--------------|--------------|--------------|--------------|
| MODEL | 25PC3822PA01 | 25PC3835KA01 | 25PC3836LA01 | 25PC3837KA01 |
| Cabinet Front | EP99X442 | EP99X419 | EP99X419 | EP99X419 |
| Cabinet Back-Headboard | EP98X453 | EP98X449 | EP98X450 | EP98X451 |
| Door | EP4X413 | | EP91X76 | EP91X77 |
| Escutcheon | EP89X483 | EP89X429 | EP89X429 | EP89X429 |
| Overlay-Secondary Controls | EP4X376 | EP4X374 | EP4X374 | EP4X374 |
| Caster-with Socket (4 used) | EP68X7 | EP68X7 | EP68X7 | EP68X7 |
| CRT Cover-Cabinet Back | EP91X74 | EP91X74 | EP91X74 | EP91X74 |
| MODEL | 25PC3840KA01 | 25PC3841LA01 | 25PC3842PA01 | 25PC3844PA01 |
| Cabinet Front | EP99X421 | EP99X421 | EP99X421 | EP99X421 |
| Cabinet Back-Hardboard | EP98X452 | EP98X453 | EP98X453 | EP98X454 |
| Door | EP91X80 | EP91X80 | EP91X80 | EP91X81 |
| Escutcheon | EP89X466 | EP89X466 | EP89X466 | EP89X466 |
| Overlay-Secondary Controls | EP4X376 | EP4X376 | EP4X376 | EP4X376 |
| Caster-with Socket (4 used) | EP68X7 | EP68X7 | EP68X7 | EP68X7 |
| CRT Cover-Cabinet Back | EP91X74 | EP91X74 | EP91X74 | EP91X7 |
| MODEL | 25PC3845KA01 | 25PC3846LA01 | 25PC3847KA01 | 25PC3848KA01 |
| Cabinet Front | EP99X422 | EP99X422 | EP99X422 | EP99X422 |
| Cabinet Back-Hardboard | EP98X449 | EP98X450 | EP98X451 | EP98X455 |
| Door | EP91X78 | EP91X76 | EP91X77 | EP91X82 |
| Escutcheon | EP89X467 | EP89X467 | EP89X467 | EP89X467 |
| Overlay-Secondary Controls | EP4X374 | EP4X374 | EP4X374 | EP4X374 |
| Caster-with Socket (4 used) | EP68X7 | EP68X7 | EP68X7 | EP68X7 |
| CRT Cover-Cabinet Back | EP91X74 | EP91X74 | EP91X74 | EP91X74 |
| MODEL | 25PC3849PA01 | | | |
| Cabinet Front | EP99X422 | | | |
| Cabinet Back-Hardboard | EP98X456 | | | |
| Door | EP91X83 | | | |
| Escutcheon | EP89X467 | | | |
| Overlay-Secondary Controls | EP4X374 | | | |
| Caster-with Socket (4 used) | EP68X7 | | | |
| CRT Cover-Cabinet Back | EP91X74 | | | |

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)
CONTROLS (All wattages 1/2 watt, or less, unless listed) (cont)

| ITEM NO. | FUNCTION | RESISTANCE | MFGR. PART NO. | NOTES |
|----------|------------------|------------|----------------|-------|
| R478 | Blue Cutoff | 5000 | EP49X470 | |
| R505 | Horiz Hold | 5000 | EP49X463 | |
| R619 | Vert Height | 250 | EP49X466 | |
| R629 | Vert Hold | 10K | EP49X467 | |
| R657 | Vert Centering | 50K | EP49X465 | |
| R953 | Regulator | 1000 | EP49X468 | |
| # R999A | Focus | | (1) | |
| # R999B | Screen | | | |
| R1903 | Horiz Centering | 500 2W | EP49X160 | |
| # R4194 | Volume/Switch | 50K | EP49X477 | |
| R4220 | Brightness | 10K | EP49X412 | |
| R4260 | Picture | 10K | EP49X412 | |
| | | | EP49X274 | |
| R4300 | Tint | 10K | EP49X412 | |
| R4301 | Color | 10K | EP49X412 | |
| RV15 | Tint Preference | 5000 | EP49X413 | |
| RV39 | Color Preference | 5000 | EP49X413 | |

For SAFETY use only equivalent replacement part.
(1) R999A and R999B are part of Horizontal Output Transformer T701 Part Number EP77X58.

RESISTORS (Power and Special)

| ITEM No. | RATING | REPLACEMENT DATA | | |
|----------|------------------------------------|------------------|------------------|---------|
| | | MFGR. PART No. | WORKMAN PART No. | REMARKS |
| # R192 | 200 5% 1/2W Flameproof Carbon Film | EP14X329 | | |
| # R484 | 12K 5% 2W Metal Oxide | EP14X231 | 22-4122 | |
| # R486 | 12K 5% 2W Metal Oxide | EP14X231 | 22-4122 | |
| # R488 | 12K 5% 2W Metal Oxide | EP14X231 | 22-4122 | |
| # R503 | 6800 5% 3W Flameproof Metal Oxide | EP14X323 | | |
| # R643 | 560 5% 1W Metal Oxide | EP14X102 | 22-3090 | |
| # R645 | 560 5% 1W Metal Oxide | EP14X102 | 22-3090 | |
| # R647 | 1500 5% 3W Flameproof Metal Oxide | EP14X230 | | |
| # R653 | 180 5% 2W Metal Oxide | EP14X220 | 22-4078 | |
| # R702 | 1200 5% 3W Flameproof Metal Oxide | EP14X328 | | |
| # R703 | .47 5% 2W Metal Oxide | EP14X262 | | |
| # R707 | 1500 5% 2W Metal Oxide | EP14X62 | 22-4100 | |
| # R900 | 1M 5% 1/2W Carbon Film | EP14X106 | 22-2168 | |
| # R901 | 18 Cold PTC | EP14X330 | FR605 | |
| # R905 | 1.5 10% 5W WW | EP14X317 | | |
| # R907 | 1.5 10% 5W WW | EP14X317 | | |
| # R921 | 2.2 5% 1/2W Flameproof | ES14X80 | | |
| # R923 | 1 5% 1/2W Flameproof Metal Film | ES14X79 | | |
| # R925 | 2.2 5% 1/2W Flameproof Carbon Film | ES14X80 | | |
| # R927 | 2.2 5% 1/2W Flameproof Carbon Film | ES14X80 | | |
| # R935 | 1500 5% 1/2W Carbon Film | ES14X62 | 22-2100 | |
| # R936 | 1000 5% 1/2W Carbon Film | EU13X4 | 22-2096 | |
| # R937 | 4.7 5% 1W Metal Oxide | EP14X287 | | |
| # R941 | 22 5% 2W Metal Oxide | EP14X154 | 22-4056 | |
| # R951 | 68K 2% 1W Metal Oxide | EP14X320 | 22-3140 | |
| # R952 | 1.8M 5% 1/4W Carbon Film | | | |
| # R955 | 3900 2% 1/8W Carbon Film | EP14X252 | | |
| # R973 | 470 5% 1/2W Carbon Film | ES14X58 | 22-2088 | |
| # R975 | 1000 10% 3W WW | EP14X275 | | |
| # R981 | 3 5% 7W WW | EP14X258 | | |
| # R983 | 470 5% 2W Metal Oxide | EP14X321 | 22-4088 | |
| # R990 | 20 5% 1/2W Carbon Film | EP14X269 | | |
| # R991 | Resistor Network | (1) | | |
| # R992 | Resistor Network | (1) | | |
| # R993 | Resistor Network | (1) | | |
| # R995 | Resistor Network | (1) | | |
| # R1901 | 170 10% 7W WW | EP14X297 | | |
| R1911A | LDR | (2) | | |

For SAFETY use only equivalent replacement part.
(1) Part of High Voltage Shutdown, Part Number EP62X167.
(2) Part of LDR Board, Part Number EP41X144.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

COILS (RF-IF)

| ITEM No. | FUNCTION | MFGR. PART No. | ITEM No. | FUNCTION | MFGR. PART No. |
|----------|------------------|----------------|----------|------------------|----------------|
| L99 | Balun | | L236 | RF Choke (15uH) | EP36X136 |
| L101 | RF Choke (.82uH) | EP36X442 | L259 | RF Choke (.82uH) | EP36X442 |
| L102 | RF Choke (.82uH) | EP36X442 | L300 | RF Choke (12uH) | EP36X23 |
| L104 | Peaking (9.2uH) | EP36X4 | L320 | Peaking (56uH) | EP36X33 |
| L105 | 4.5MHz Trap | EP36X312 | L321 | Peaking (56uH) | EP36X33 |
| L106 | Video IF | EP36X433 | L322 | Peaking (56uH) | EP36X33 |
| L107 | AFT | EP36X433 | L403 | RF Choke (220uH) | ES36X82 |
| L108 | Video IF | EP36X434 | # L703 | RF Choke (12uH) | EP36X437 |
| L180 | RF Choke (27uH) | EP36X144 | # L901 | Line Filter | EP36X440 |
| L190 | Quadrature | EP36X435 | L921 | RF Choke (15uH) | EP36X136 |
| L196 | RF Choke (220uH) | ES36X82 | L929 | RF Choke (12uH) | EP36X437 |
| L200 | Peaking (30uH) | EP36X314 | L1903 | RF Choke (2.5uH) | EP36X450 |
| L204 | RF Choke (150uH) | EP36X17 | # L1905 | Linearity | EP36X432 |
| L220 | Delay Line | EP36X439 | LV50 | RF Choke (56uH) | |

For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS (Sweep Circuits)

| ITEM No. | FUNCTION | REPLACEMENT DATA | | |
|----------|-------------------------------------|------------------|----------------------|---------------------|
| | | MFGR. PART No. | OTHER IDENTIFICATION | THORDARSON PART No. |
| # DY1 | Yoke Horiz .91mH 90° Vert 43.3mH | EP76X33 | | |
| # L909 | Regulator | EP36X441 | | |
| # L1901 | Width | EP36X449 | | |
| # T701 | Horizontal Output | EP77X58 | | |
| # T703 | Horizontal Driver | EP64X57 | | |
| # T1901 | Pincushion | EP36X448 | 73C182195-9 | |

For SAFETY use only equivalent replacement part.

TRANSFORMER (Audio Output)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | NOTES |
|----------|-----------|------|---------------------------|---------------------|-------|
| | | | MFGR. PART No. | THORDARSON PART No. | |
| | PRI. | SEC. | | | |
| T192 | 676 | 16 | EP64X58 73C184689-2(1) | | |

(1) Number on unit.

SPEAKER

| ITEM No. | TYPE | REPLACEMENT DATA | | NOTES |
|----------|--------------------------------|--------------------|-------------------|-----------------------------------------------|
| | | MFGR. PART No. | QUAM PART No. | |
| SP199 | 4" PM 16 Ohms 4" PM 32 Ohms | EP95X25 EP95X14 | 4A1Z16 4A05Z32 | Used in models: 25PC3848KA01, 25PC3849PA01 |

FUSE DEVICES

| ITEM NO. | DESCRIPTION | MFGR. PART NO. | | NOTES |
|----------|--------------------------|----------------|----------|-------|
| | | DEVICE | HOLDER | |
| # F901 | 4A @ 250V Fast-Acting | EP10X19 | EP3X7(1) | |
| # F903 | 1.5A @ 250V Slow-Blow | ET10X38 | EP3X7(1) | |

For SAFETY use only equivalent replacement part.

(1) 2 Clips Used.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

MISCELLANEOUS

| ITEM No. | PART NAME | MFGR. PART No. | NOTES |
|----------|-----------------------|----------------|---------------------------------------|
| CF100 | Filter | EP41X126 | Ceramic 4.5MHz |
| CF212 | Filter | EP41X133 | Ceramic 3.58MHz |
| CR1 | Component Combination | | VHF Antenna Isolation (2.5-4M 130pF) |
| CR2 | Component Combination | | UHF Antenna Isolation (2.5-4M 130pF) |
| FB200 | Ferrite Bead | EP12X8 | |
| FB921 | Ferrite Bead | EP12X8 | |
| FB963 | Ferrite Bead | EP12X8 | |
| FB963A | Ferrite Bead | EP12X8 | |
| FB1901 | Ferrite Bead | EP12X2 | |
| FB1903 | Ferrite Bead | EP12X2 | |
| # L999 | Degaussing Coil | EP36X451 | |
| # L999A | Degaussing Coil | EP36X451 | |
| MV10 | LED | | VIR Indicator, Red (1.60V @ 8.6mA) |
| # P900 | Cord | EP66X19 | AC Power, Polarized |
| S900 | Switch | | VIR |
| S4000 | Switch | EP49X477 | Power On/Off (Part of Volume Control) |
| SF101 | Filter | EP41X123 | SAW |
| # V6001 | CRT | 25VGY22 | |
| X300 | Crystal | EP41X10 | 3.58MHz |
| | Adaptor | EP90X40 | 75 Ohm to 300 Ohm |
| | Antenna | | UHF-RUSSELL Antenna BOW-4H(1) |
| | Antenna | | VHF-RUSSELL Assembly BEA-1H |
| | Antenna Terminal | EP37X64 | |
| | Antenna Terminal | EP37X59(2) | |
| | Antenna Terminal | EP37X65(3) | |
| | Magnet Assembly | EP42X8 | Convergence |
| | P.C. Board | EP93X349 | Horiz Heat Sink |
| | P.C. Board | EP93X390 | VIR |
| | P.C. Board | EP93X392 | RGB |
| | P.C. Board | EP93X382 | Auto Color |
| | P.C. Board | PC-A | Main |
| | Socket | EP34X67 | CRT |
| | Tuner | EP85X75(2) | UHF-PTS Part Number EP85X75 |
| | Tuner | EP86X83(2) | VHF-PTS Part Number EP86X83 |
| | Tuner | EP93X415 | UHF/VHF PTS. Part Number EP93X415 |
| | Wedges | EP3X41 | Yoke (3 used) |

For SAFETY use only equivalent replacement part.

(1) Clips to VHF rod.

(2) Used in Models 25PC3802KA01/04PA01/06MA01.

(3) Used in Models 25PC3810KA01/11LA01/12PA01.

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

| ITEM | PART No. | PART No. | PART No. | PART No. |
|-----------------------------|--------------|--------------|--------------|--------------|
| MODEL | 25PC3802KA01 | 25PC3804PA01 | 25PC3806MA01 | 25PC3810KA01 |
| Cabinet Front | EP99X423 | EP99X423 | EP99X423 | EP99X420 |
| Cabinet Back-Hardboard | EP98X457 | EP98X454 | EP98X458 | EP98X452 |
| Door | EP91X84 | EP91X81 | EP91X85 | EP91X79 |
| Escutcheon | EP89X468 | EP89X468 | EP89X468 | EP89X465 |
| Overlay-Secondary Controls | EP4X376 | EP4X376 | EP4X376 | EP4X375 |
| Caster-with Socket (4 used) | EP68X7 | EP68X7 | EP68X7 | EP68X7 |
| CRT Cover-Cabinet Back | EP91X74 | EP91X74 | EP91X74 | EP91X74 |
| MODEL | 25PC3811LA01 | 25PC3812PA01 | 25PC3820KA01 | 25PC3821LA01 |
| Cabinet Front | EP99X420 | EP99X420 | EP99X442 | EP99X442 |
| Cabinet Back-Hardboard | EP98X453 | EP98X453 | EP98X452 | EP98X453 |
| Door | EP91X79 | EP91X79 | EP4X413 | EP4X413 |
| Escutcheon | EP89X465 | EP89X465 | EP89X483 | EP89X483 |
| Overlay-Secondary Controls | EP4X375 | EP4X375 | EP4X376 | EP4X376 |
| Caster-with Socket (4 used) | EP68X7 | EP68X7 | EP68X7 | EP68X7 |
| CRT Cover-Cabinet Back | EP91X74 | EP91X74 | EP91X74 | EP91X74 |

GENERAL ELECTRIC
CHASSIS 25PC-A

FOLDER 2