

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver ground and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering X-ray radiation. In solid-state receivers and monitors, the CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. Keep high voltage at rated value, NO HIGHER. Excessive high voltage may cause X-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, many electrical and mechanical components have safety related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

HIGH VOLTAGE SHUTDOWN TEST

Momentarily short a 1000 ohms resistor across the base of Q4902 and ground. The receiver should lose raster and sound. If the receiver does not lose raster and sound, the shutdown circuit should be repaired. To resume normal operation, remove AC power for approximately 30 seconds and then turn the receiver on. Enter the Service Mode and reset the error code parameters for X-Ray Shutdown to 00.

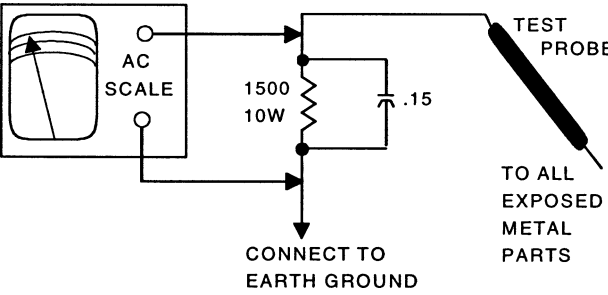
SAFETY CHECKS — FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by SAMS Technical Publishing as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to SAMS Technical Publishing by the manufacturers of the specific type of replacement part listed.

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

© 2002 SAMS Technical Publishing

5436 West 78th Street  
Indianapolis, IN 46268-4149

Printed in the United States of America 5 4 3 2 1

02PF01861

UPC  
HERE

SET 4536

MODEL PS35160FM1 (CHASSIS CTC179DJ)

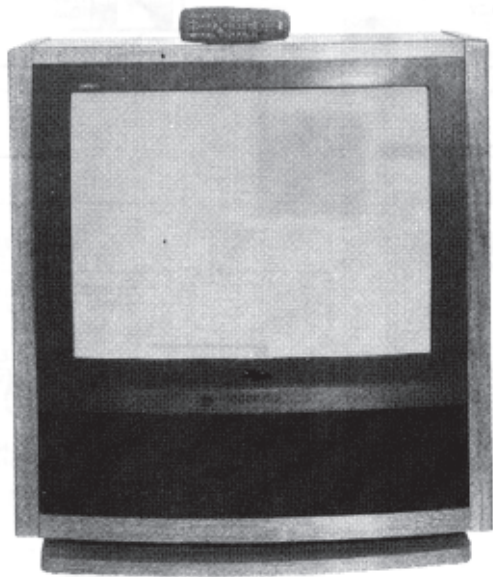
PROSCAN

PHOTOFACT<sup>®</sup> Technical Service Data  
SILVER

INDEX

Error Codes Chart ..... 1  
High Voltage Shutdown Test ..... 1  
IC Functions ..... 6  
Important Parts Information ..... 7  
Miscellaneous Adjustments ..... 1  
Parts List ..... 7, 8  
Placement Chart ..... 3  
Safety Precautions ..... 1  
Schematic Component Location ..... 7  
Schematic Notes ..... 4  
Schematics  
    Audio ..... 6  
    Audio Output ..... 6  
    Main Tuner ..... 4  
    PIP Tuner/IF ..... 5  
    Power Supply ..... 3  
    System Control ..... 4  
    Television ..... 2  
    Video Switching/PIP ..... 5  
Test Equipment ..... 2  
Voltage Chart  
    Main Tuner ..... 4  
    PIP Tuner/IF ..... 4

PROSCAN  
Model PS35160FM1 (Chassis CTC179DJ)



Representative Model

Essential coverage  
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

Coverage includes these additional models and chassis:

| Models     | Chassis  |
|------------|----------|
| PS35160JX1 | CTC179DJ |
| PS35660LM1 | CTC179DJ |



JANUARY 2002 SET 4536

For Supplier Address,  
See PHOTOFACT Annual Index

ERROR CODES CHART

| Error Code | Error                        | Condition Indicated                               |
|------------|------------------------------|---|
| 0          | No error code                | -   |
| 17         | Bus Fault Detected by U3102  | U3102 standby IIC clock or data held low.         |
| 18         | DC Detect                    | Power supply shutdown.                            |
| 22         | Run Supply Momentary Dropout | Run supply momentary dropped and recovered.       |
| 23         | Run Supply Shutdown          | Run supply shutdown.                              |
| 24         | System Stack Overflow        | Software error.                                   |
| 25         | PIP Module Error             | PIP fails to acknowledge.                         |
| 26         | User Stack Overflow          | Software error.                                   |
| 28         | Watchdog Timeout             | Software error.                                   |
| 30         | XRP Shutdown                 | X - ray overvoltage detected by U2001.            |
| 72         | Bus Expander Fault U2502     | U2502 fails to acknowledge.                       |
| 73         | Bus Expander Fault U2502     | U2502 fails to acknowledge.                       |
| 128        | Stereo decoder U1600         | Stereo decoder U1600 fails to acknowledge.        |
| 136        | TVB Fault U1503              | Tone/ Volume/ Balance U1503 fails to acknowledge. |
| 138        | TVB Fault U1504              | Tone/ Volume/ Balance U1504 fails to acknowledge. |
| 150        | Video matrix switch U6501    | Video matrix switch U6501 fails to acknowledge.   |
| 154        | Audio matrix switch U1402    | Audio matrix switch U1402 fails to acknowledge.   |
| 186        | T2 Chip U2001                | U2001 fails to acknowledge.                       |
| 194        | Tuner PLL U501               | Tuner U501 PLL IC fails to acknowledge.           |

MISCELLANEOUS ADJUSTMENTS

B+ CHECK

NOTE : R4113 is factory sealed. DO NOT ADJUST. Refer to replacement parts for kit information.

Connect a digital DC voltmeter to pin 8 of T4401 and use pin 3 as ground point. Set brightness and picture to minimum. With AC line voltage set to 120VAC, the B+ should read 135V ±.1V.

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness, contrast, and color to minimum. Connect a high voltage probe to the CRT anode. High voltage should measure 31kV to 33kV.

BLANKING RESERVE

Tune in a color bar signal, short pin 49 of U2001 to ground to eliminate color. Enter service mode and select parameters (1 13), (1 14), and (1 15). Adjust the value of each parameter to maximum. Select parameters (1 16), (1 17), and (1 18). Adjust the value of each parameter to minimum.

Connect an oscilloscope to pin 8 of the CRT socket. Adjust the value of parameter (1 16) to obtain 5.0V ± 2.0V between the sync tip and the peak point of the red output waveform. If that cannot be attained by adjusting value of parameter (1 16), then decrement the value of parameter (1 13) by one step and repeat the adjustment.

Connect an oscilloscope to pin 6 of the CRT socket. Adjust the value of parameter (1 17) to obtain 5.0V ± 2.0V between the sync tip and the peak point of the green output waveform. If that cannot be attained by adjusting the value of parameter (1 17), then decrement the value of parameter (1 14) by one step, and repeat the adjustment.

Connect an oscilloscope to pin 11 of the CRT socket. Adjust the value of parameter (1 18) to obtain 5.0V ± 2.0V between the sync tip and the peak point of the blue output waveform. If that cannot be attained by adjusting the value of parameter (1 18), then decrement the value of parameter (1 15) by one step, and repeat the adjustment.

COLOR TEMPERATURE

Tune in a color bar signal, short pin 49 of U2001 to ground to eliminate color. Enter service mode, and select parameters (0 14), (0 15), and (0 16). Adjust the value of each parameter to obtain a low-level white balance on the screen. Notice that the far right bar on the screen must remain black.

In case one or more of these bias parameters can not be set, increment the value of the corresponding parameter (0 20), (0 21), or (0 22) by one step at a time. These parameters have a very large effect on the display, adjust only if absolutely necessary.

Select parameters (0 17), (0 18), and (0 19). Adjust the value of each parameter to obtain a high-level white balance on the screen. Notice that the far left bar on the screen must remain white.

Tune in a crosshatch signal, select parameter (0 14), and check for stable display. If the display is blinking or blanking, adjust the screen control. There is a narrow range of the screen control in which a stable display will appear. Repeat color temperature adjustment if necessary. Check for best black and white picture. Check tracking at low and high brightness.

STEREO ADJUSTMENTS

All adjustments were made using a MTS TV / stereo generator. Set the customer controls to normal listening levels and select stereo mode.

STEREO VCO

Unsolder the end of R1609 connected to JW244, disconnect the RF source from the antenna terminal. Enter service mode and select parameter (1 19). Connect a frequency counter to pin 28 of U1600. Adjust the value to obtain a reading of 62.936kHz. Resolder R1609 for normal operation.

SAP VCO

Remove power and unsolder the end of R1609 connected to JW244. Apply 1kHz audio frequency and L-R modulating signal with SAP on. Connect an audio generator (78.67kHz sine) to the loose end of R1609 and set signal level to 255mVrms. Apply AC power, enter service mode, and select parameter (1 20), and set value to minimum. Increment the value slowly until an astrisk (\*) appears next to the value, record this value as V1. Reset the value of parameter (1 20) to maximum. Decrement the value slowly until an astrisk (\*) appears next to the value, record this value as V2. Set the value of parameter (1 20) to half the value of (V2 - V1). Resolder R1609 for normal operation.

STEREO LOWPASS FILTER

Remove power and unsolder the end of R1609 connected to JW244. Apply 1kHz audio frequency and L+R modulating signal with pilot on. Connect an audio generator (9.4kHz sine) to the loose end of R1609 and set signal level to 1.04Vrms. Apply AC power, enter service mode, and select parameter (1 21), and set value to minimum. Increment the value slowly until an astrisk (\*) appears next to the value, record this value as V1. Reset the value of parameter (1 21) to maximum. Decrement the value slowly until an astrisk (\*) appears next to the value, record this value as V2. Set the value of parameter (1 21) to half the value of (V2 - V1). Resolder R1609 for normal operation.

SAP FILTER

Remove power and unsolder the end of R1609 connected to JW244. Apply 1kHz audio frequency and L-R modulating signal with SAP on. Connect an audio generator (88kHz sine) to the loose end of R1609 and set signal level to 206mVrms. Apply AC power, enter service mode, and select parameter (1 22), and set value to minimum. Increment the value slowly until an astrisk (\*) appears next to the value, record this value as V1. Reset the value of parameter (1 22) to maximum. Decrement the value slowly until an astrisk (\*) appears next to the value, record this value as V2. Set the value of parameter (1 22) to half the value of (V2 - V1). Resolder R1609 for normal operation.

SEPARATION

Select pilot, 300Hz audio frequency, and left modulating signal. Connect an oscilloscope to pin 28 of U1600, enter service mode, and select parameter (1 23), set value for minimum amplitude. Change audio frequency to 3kHz and select parameter (1 24). Set value for minimum amplitude. Repeat process until no further decrease in the waveform amplitude is obtained.

Do not use any modulation frequency other than specified. If the specified frequency is not available set the value of parameter (1 23) to 31 and set the value of parameter (1 24) to 35.



MISCELLANEOUS ADJUSTMENTS continued

SERVICE MENU

The following adjustment procedures are accessed thru a service menu. To access the service menu, turn the receiver on, press the menu button and hold it down while pressing the power button. While holding down the menu button, release the power button and press the volume + button. The screen will display a one line menu, on the left the parameter P0, and on the right the value of that parameter V0. Release buttons. Adjustments are made by selecting the proper parameter and changing the value of that parameter. To change the parameter number use channel up and down buttons. To adjust the current value of that parameter use volume + and - buttons. To access and change any of the adjustments, the proper parameter pass number must be entered. This information is listed at the beginning of the alignment. When these parameters are modified, the T-Chip U2001 and the corresponding EEPROM U3102, and U8302 are updated. All service adjustments are bus controlled, except focus and screen. Parameters are grouped in 4 groups. Group 0 is Instrument Parameters; Group 1 is Chassis Parameters; Group 2 is Tuner Parameters; and Group 3 is PIP Tuner Parameters. A security code must be entered to access the parameters of each group.

SERVICE ADJUSTMENT PARAMETERS

| Parameter No. | Parameter Name   | On Set Value | Value Range    | Comment  |
|---------------|--|--------------|----------------|--|
| 0 0           | Pass number for service adjustment parameters for group 0. | 00           | Must set to 76 | May not advance until value is set to 76.  |
| 0 1           | Error Code 1   | 00           | 00 - 255       | Displays the first error detected. Set to 00 before exiting. See Error Codes Chart.  |
| 0 2           | Error Code 2   | 00           | 00 - 255       | Displays the second error detected. Set to 00 before exiting. See Error Codes Chart.   |
| 0 3           | Error Code 3   | 00           | 00 - 255       | Displays the last error detected. Set to 00 before exiting. See Error Codes Chart.   |
| 0 4           | Horizontal Phase   | 05           | 00 - 15        | Set value to 05.   |
| 0 5           | Vertical Centering   | 32           | 00 - 63        | Adjust to center vertically.   |
| 0 6           | Horizontal Size  | 20           | 00 - 31        | Adjust for slight horizontal overscan.   |
| 0 7           | Pincushion Amplitude                                       | 08           | 00 - 15        | Set value to 08.   |
| 0 8           | Pincushion Tilt  | 08           | 00 - 15        | Set value to 08.   |
| 0 9           | Vertical Size  | 110          | 00 - 127       | Adjust for slight vertical overscan.   |
| 0 10          | Vertical Linearity   | 08           | 00 - 15        | Adjust to center vertically.   |
| 0 11          | Vertical S-Correction                                      | 00           | 00 - 15        | Set value to 00.   |
| 0 12          | Bottom Corner Pin Correct                                  | 03           | 00 - 7         | Set value to 03.   |
| 0 13          | Top Corner Pin Correction                                  | 03           | 00 - 7         | Set value to 03.   |
| 0 14          | Red Bias   | 27           | 00 - 127       | Adjust for proper low-level white balance see color temperature adjustment.  |
| 0 15          | Green Bias   | 20           | 00 - 127       | Adjust for proper low-level white balance see color temperature adjustment.  |
| 0 16          | Blue Bias  | 37           | 00 - 127       | Adjust for proper low-level white balance see color temperature adjustment.  |
| 0 17          | Red Drive  | 32           | 00 - 63        | Adjust for proper high-level white balance see color temperature adjustment.   |
| 0 18          | Green Drive  | 27           | 00 - 63        | Adjust for proper high-level white balance see color temperature adjustment.   |
| 0 19          | Blue Drive   | 25           | 00 - 63        | Adjust for proper high-level white balance see color temperature adjustment.   |
| 0 20          | Red Sub Bias   | 00           | 00 - 3         | See color temperature adjustment.  |
| 0 21          | Green Sub Bias   | 00           | 00 - 3         | See color temperature adjustment.  |
| 0 22          | Blue Sub Bias  | 00           | 00 - 3         | See color temperature adjustment.  |
| 1 0           | Pass number for service adjustment parameters for group 1. | 00           | Must set to 77 | May not advance until value is set to 77.  |
| 1 1           | IF VCO Free Run  | 87           | 00 - 127       | Disconnect RF source, short +side of C2309 to ground. Set the generator for 45.75MHz marker, 450mVrms. Adjust for 3.8V at pin 12 of U2001. |
| 1 2           | 4.5MHz Trap  | 07           | 00 - 7         | Set value to 07.   |
| 1 3           | IF APC Offset  | 16           | 00 - 31        | Short pin 11 of U2001 to ground, adjust for 3.8V at pin 14 of U2001.   |
| 1 4           | Video Level  | 05           | 00 - 7         | Short pin 49 of U2001 to ground, adjust for a waveform of 1.6V ±.15Vp-p at pin 56 of U2001.  |
| 1 5           | FM Level   | 19           | 00 - 31        | Apply 1kHz, L+R signal. Adjust for a 333mVp-p waveform at pin 5 of U2001 (carrier portion is not included).                                |
| 1 6           | RF AGC Delay   | 30           | 00 - 63        | Set to the value when snow disappears from picture.  |
| 1 7           | D2PIP Brightness   | 19           | 00 - 31        | Adjust so that the brightness of the PIP picture matches the brightness of the main picture.   |
| 1 8           | D2PIP Contrast   | 50           | 00 - 63        | Adjust so that the brightness of the PIP picture matches the brightness of the main picture.   |
| 1 9           | D2PIP Chroma Level   | 67           | 00 - 127       | Adjust so that color level of the PIP picture matches color level of the main picture.   |
| 1 10          | D2PIP Tint   | 60           | 00 - 127       | Adjust so that the tint of the PIP picture matches the tint of the main picture.   |
| 1 11          | Factory Tint   | 65           | 00 - 127       | Set value to 65.   |
| 1 12          | Factory Contrast   | 55           | 00 - 127       | Set value to 55.   |
| 1 13          | Red Blanking (Sub-Bias)                                    | 00           | 00 - 3         | See Blanking Reserve adjustment.   |
| 1 14          | Green Blanking (Sub-Bias)                                  | 00           | 00 - 3         | See Blanking Reserve adjustment.   |
| 1 15          | Blue Blanking (Sub-Bias)                                   | 00           | 00 - 3         | See Blanking Reserve adjustment.   |
| 1 16          | Red Blanking (Bias)  | 00           | 00 - 127       | See Blanking Reserve adjustment.   |
| 1 17          | Green Blanking (Bias)                                      | 00           | 00 - 127       | See Blanking Reserve adjustment.   |
| 1 18          | Blue Blanking (Bias)                                       | 00           | 00 - 127       | See Blanking Reserve adjustment.   |
| 1 19          | Stereo VCO   | 31           | 00 - 63        | See Stereo Adjustments.  |
| 1 20          | SAP VCO  | 07           | 00 - 15        | See Stereo Adjustments.  |
| 1 21          | Stereo Lowpass Filter                                      | 32           | 00 - 63        | See Stereo Adjustments.  |
| 1 22          | SAP Filter   | 07           | 00 - 15        | See Stereo Adjustments.  |
| 1 23          | Wideband DBX   | 31           | 00 - 63        | See Stereo Adjustments.  |
| 1 24          | Spectral DBX   | 35           | 00 - 63        | See Stereo Adjustments.  |

ELECTRONIC MAIN TUNER ALIGNMENT

Use tuner alignment generator, RCA stock no. TAG001, and a VCR for signal source. Monitor IF AGC at pin 11 of U2001, and adjust for minimum voltage at parameters 59 and 58. The entire Electronic Tuner Alignment procedure, once started, must be completed in its entirety.

| Parameter No. | Parameter Name                                  | Value Range    | On Set Value |
|---------------|---|----------------|--------------|
| 2 00          | Pass number for Main tuner alignment parameters | Must set to 78 | 00           |
| 2 01          | Ch. 2 secondary                                 | 00 - 62        | 25           |
| 2 02          | Ch. 2 single                                    | 00 - 62        | 20           |
| 2 03          | Ch. 2 primary                                   | 00 - 62        | 17           |
| 2 04          | Ch. 3 secondary                                 | 00 - 62        | 26           |
| 2 05          | Ch. 3 single                                    | 00 - 62        | 27           |
| 2 06          | Ch. 3 primary                                   | 00 - 62        | 25           |
| 2 07          | Ch. 6 secondary                                 | 00 - 62        | 49           |
| 2 08          | Ch. 6 single                                    | 00 - 62        | 37           |
| 2 09          | Ch. 6 primary                                   | 00 - 62        | 52           |
| 2 10          | Ch. 99 secondary                                | 00 - 62        | 49           |
| 2 11          | Ch. 99 single                                   | 00 - 62        | 43           |
| 2 12          | Ch. 99 primary                                  | 00 - 62        | 37           |
| 2 13          | Ch. 17 secondary                                | 00 - 62        | 57           |
| 2 14          | Ch. 17 single                                   | 00 - 62        | 56           |
| 2 15          | Ch. 17 primary                                  | 00 - 62        | 41           |
| 2 16          | Ch. 18 secondary                                | 00 - 62        | 30           |
| 2 17          | Ch. 18 single                                   | 00 - 62        | 27           |
| 2 18          | Ch. 18 primary                                  | 00 - 62        | 25           |
| 2 19          | Ch. 13 secondary                                | 00 - 62        | 49           |
| 2 20          | Ch. 13 single                                   | 00 - 62        | 40           |
| 2 21          | Ch. 13 primary                                  | 00 - 62        | 45           |
| 2 22          | Ch. 29 secondary                                | 00 - 62        | 35           |
| 2 23          | Ch. 29 single                                   | 00 - 62        | 30           |
| 2 24          | Ch. 29 primary                                  | 00 - 62        | 37           |
| 2 25          | Ch. 41 secondary                                | 00 - 62        | 42           |
| 2 26          | Ch. 41 single                                   | 00 - 62        | 47           |
| 2 27          | Ch. 41 primary                                  | 00 - 62        | 46           |
| 2 28          | Ch. 47 secondary                                | 00 - 62        | 49           |
| 2 29          | Ch. 47 single                                   | 00 - 62        | 50           |
| 2 30          | Ch. 47 primary                                  | 00 - 62        | 55           |
| 2 31          | Ch. 50 secondary                                | 00 - 62        | 49           |
| 2 32          | Ch. 50 single                                   | 00 - 62        | 37           |
| 2 33          | Ch. 50 primary                                  | 00 - 62        | 17           |
| 2 34          | Ch. 51 secondary                                | 00 - 62        | 25           |
| 2 35          | Ch. 51 single                                   | 00 - 62        | 20           |
| 2 36          | Ch. 51 primary                                  | 00 - 62        | 17           |
| 2 37          | Ch. 57 secondary                                | 00 - 62        | 49           |
| 2 38          | Ch. 57 single                                   | 00 - 62        | 37           |
| 2 39          | Ch. 57 primary                                  | 00 - 62        | 25           |
| 2 40          | Ch. 68 secondary                                | 00 - 62        | 49           |
| 2 41          | Ch. 68 single                                   | 00 - 62        | 20           |
| 2 42          | Ch. 68 primary                                  | 00 - 62        | 25           |
| 2 43          | Ch. 76 secondary                                | 00 - 62        | 25           |
| 2 44          | Ch. 76 single                                   | 00 - 62        | 20           |
| 2 45          | Ch. 76 primary                                  | 00 - 62        | 17           |
| 2 46          | Ch. 93 secondary                                | 00 - 62        | 49           |
| 2 47          | Ch. 93 single                                   | 00 - 62        | 37           |
| 2 48          | Ch. 93 primary                                  | 00 - 62        | 25           |
| 2 49          | Ch. 110 secondary                               | 00 - 62        | 49           |
| 2 50          | Ch. 110 single                                  | 00 - 62        | 20           |
| 2 51          | Ch. 110 primary                                 | 00 - 62        | 25           |
| 2 52          | Ch. 120 secondary                               | 00 - 62        | 49           |
| 2 53          | Ch. 120 single                                  | 00 - 62        | 20           |
| 2 54          | Ch. 120 primary                                 | 00 - 62        | 25           |
| 2 55          | Ch. 125 secondary                               | 00 - 62        | 25           |
| 2 56          | Ch. 125 single                                  | 00 - 62        | 20           |
| 2 57          | Ch. 125 primary                                 | 00 - 62        | 17           |
| 2 58          | Main IF Filter 1                                | 00 - 62        | 49           |
| 2 59          | Main IF Filter 2                                | 00 - 62        | 37           |

ELECTRONIC PIP TUNER ALIGNMENT

Monitor IF AGC at pin 4 of U8101 and adjust for minimum voltage at parameters 58 and 59. The entire Electronic Tuner Alignment procedure, once started, must be completed in its entirety.

| Parameter No. | Parameter Name                                 | Value Range    | On Set Value |
|---------------|--|----------------|--------------|
| 3 00          | Pass number for PIP tuner alignment parameters | Must set to 79 | 00           |
| 3 01          | Ch. 2 single                                   | 00 - 62        | 25           |
| 3 02          | Ch. 2 secondary                                | 00 - 62        | 20           |
| 3 03          | Ch. 2 primary                                  | 00 - 62        | 17           |
| 3 04          | Ch. 3 single                                   | 00 - 62        | 49           |
| 3 05          | Ch. 3 secondary                                | 00 - 62        | 37           |
| 3 06          | Ch. 3 primary                                  | 00 - 62        | 25           |
| 3 07          | Ch. 6 single                                   | 00 - 62        | 49           |
| 3 08          | Ch. 6 secondary                                | 00 - 62        | 20           |
| 3 09          | Ch. 6 primary                                  | 00 - 62        | 17           |
| 3 10          | Ch. 99 single                                  | 00 - 62        | 49           |
| 3 11          | Ch. 99 secondary                               | 00 - 62        | 37           |
| 3 12          | Ch. 99 primary                                 | 00 - 62        | 17           |
| 3 13          | Ch. 17single                                   | 00 - 62        | 25           |
| 3 14          | Ch. 17 secondary                               | 00 - 62        | 20           |
| 3 15          | Ch. 17 primary                                 | 00 - 62        | 17           |
| 3 16          | Ch. 18 single                                  | 00 - 62        | 49           |
| 3 17          | Ch. 18 secondary                               | 00 - 62        | 37           |
| 3 18          | Ch. 18 primary                                 | 00 - 62        | 25           |
| 3 19          | Ch. 13 single                                  | 00 - 62        | 49           |
| 3 20          | Ch. 13 secondary                               | 00 - 62        | 20           |
| 3 21          | Ch. 13 primary                                 | 00 - 62        | 25           |
| 3 22          | Ch. 29 single                                  | 00 - 62        | 25           |
| 3 23          | Ch. 29 secondary                               | 00 - 62        | 20           |
| 3 24          | Ch. 29 primary                                 | 00 - 62        | 17           |
| 3 25          | Ch. 41 single                                  | 00 - 62        | 49           |
| 3 26          | Ch. 41 secondary                               | 00 - 62        | 37           |
| 3 27          | Ch. 41 primary                                 | 00 - 62        | 25           |
| 3 28          | Ch. 47 single                                  | 00 - 62        | 49           |
| 3 29          | Ch. 47 secondary                               | 00 - 62        | 20           |
| 3 30          | Ch. 47 primary                                 | 00 - 62        | 25           |
| 3 31          | Ch. 50 single                                  | 00 - 62        | 49           |
| 3 32          | Ch. 50 secondary                               | 00 - 62        | 37           |
| 3 33          | Ch. 50 primary                                 | 00 - 62        | 17           |
| 3 34          | Ch. 51 single                                  | 00 - 62        | 25           |
| 3 35          | Ch. 51 secondary                               | 00 - 62        | 20           |
| 3 36          | Ch. 51 primary                                 | 00 - 62        | 17           |
| 3 37          | Ch. 57 single                                  | 00 - 62        | 49           |
| 3 38          | Ch. 57 secondary                               | 00 - 62        | 37           |
| 3 39          | Ch. 57 primary                                 | 00 - 62        | 25           |
| 3 40          | Ch. 68 single                                  | 00 - 62        | 49           |
| 3 41          | Ch. 68 secondary                               | 00 - 62        | 20           |
| 3 42          | Ch. 68 primary                                 | 00 - 62        | 25           |
| 3 43          | Ch. 76 single                                  | 00 - 62        | 25           |
| 3 44          | Ch. 76 secondary                               | 00 - 62        | 20           |
| 3 45          | Ch. 76 primary                                 | 00 - 62        | 17           |
| 3 46          | Ch. 93 single                                  | 00 - 62        | 49           |
| 3 47          | Ch. 93 secondary                               | 00 - 62        | 37           |
| 3 48          | Ch. 93 primary                                 | 00 - 62        | 25           |
| 3 49          | Ch. 110 single                                 | 00 - 62        | 49           |
| 3 50          | Ch. 110 secondary                              | 00 - 62        | 20           |
| 3 51          | Ch. 110 primary                                | 00 - 62        | 25           |
| 3 52          | Ch. 120 single                                 | 00 - 62        | 49           |
| 3 53          | Ch. 120 secondary                              | 00 - 62        | 20           |
| 3 54          | Ch. 120 primary                                | 00 - 62        | 25           |
| 3 55          | Ch. 125 single                                 | 00 - 62        | 25           |
| 3 56          | Ch. 125 secondary                              | 00 - 62        | 20           |
| 3 57          | Ch. 125 primary                                | 00 - 62        | 17           |
| 3 58          | PIP IF Filter 1                                | 00 - 62        | 49           |
| 3 59          | PIP IF Filter 2                                | 00 - 62        | 37           |



MISCELLANEOUS ADJUSTMENTS continued

MAIN TUNER ALIGNMENT (GROUP 2)

The tuner coil alignment is preset at the time of manufacture and should require no further adjustment. The following recommended procedure should be performed only in event a complete tuner alignment is necessary, which is unlikely. Use plastic or wooden tool to adjust coils. This procedure is performed with top tuner cover removed and bottom tuner cover in place and soldered.

IF Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001, and tune in a color bar signal on main tuner. Connect DC voltmeter to pin 11 of U2001. Connect ground to tuner shield.
- 2. Select parameter (2 59) and adjust value to have minimum voltage at pin 11 of U2001.
- 3. Select parameter (2 58) and adjust value to have minimum voltage at pin 11 of U2001.
- 4. Repeat steps 2 and 3 until no reduction in voltage reading at pin 11 of U2001 can be achieved.

Band 2 Manual Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 50 output and tune to receive channel 50 on main tuner.
- 3. Adjust L703 for 4.9V ±1V.
- 4. Connect voltmeter across C2309.
- 5. Select parameter (2 31) and record the value. Adjust parameter (2 31) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L104 and repeat this step. If the null voltage appears, set parameter (2 31) to recorded value and continue to the next step.
- 6. Select parameter (2 32) and record the value. Adjust parameter (2 32) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L109 and repeat this step. If the null voltage appears, set parameter (2 32) to recorded value and continue to the next step.
- 7. Select parameter (2 33) and record the value. Adjust parameter (2 33) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L107 and repeat this step. If the null voltage appears, set parameter (2 33) to recorded value.

Band 1 Manual Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 17 output and tune to receive channel 17 on main tuner.
- 3. Adjust L704 for 4.6V ±1V.
- 4. Connect voltmeter across C2309.
- 5. Select parameter (2 14) and record the value. Adjust parameter (2 14) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L105 and repeat this step. If the null voltage appears, set parameter (2 14) to recorded value and continue to the next step.

- 6. Select parameter (2 13) and record the value. Adjust parameter (2 13) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L111 and repeat this step. If the null voltage appears, set parameter (2 13) to recorded value and continue to the next step.
- 7. Select parameter (2 15) and record the value. Adjust parameter (2 15) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L108 and repeat this step. If the null voltage appears, set parameter (2 15) to recorded value.

Band 3 Manual Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 125 output and tune to receive channel 125 on main tuner.
- 3. Adjust L701 for 4.8V ±1V.
- 4. Connect voltmeter across C2309.
- 5. Select parameter (2 56) and record the value. Adjust parameter (2 56) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L302 and repeat this step. If the null voltage appears, set parameter (2 56) to recorded value and continue to the next step.
- 6. Select parameter (2 55) and record the value. Adjust parameter (2 55) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L305 and repeat this step. If the null voltage appears, set parameter (2 55) to recorded value and continue to the next step.
- 7. Select parameter (2 57) and record the value. Adjust parameter (2 57) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L304 and repeat this step. If the null voltage appears, set parameter (2 57) to recorded value.

RF AGC Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Connect voltmeter across C2309.
- 3. Set the tuner alignment generator for channel 2 output and tune to receive channel 2 on main tuner.
- 4. Select parameter (2 1) and adjust value to have minimum DC voltage.
- 5. Select parameter (2 2) and adjust value to have minimum DC voltage.
- 6. Select parameter (2 3) and adjust value to have minimum DC voltage.
- 7. The adjustments for each channel must be repeated to assure correct alignment.
- 8. Repeat the process with parameters (2 4) thru (2 57), and repeat the adjustments for each channel to assure correct alignment.

PIP TUNER ALIGNMENT (GROUP 3)

The tuner coil alignment is preset at the time of manufacture and should require no further adjustment. The following recommended procedure should be performed only in event a complete tuner alignment is necessary, which is unlikely. Use plastic or wooden tool to adjust coils. This procedure is performed with top tuner cover removed and bottom tuner cover in place and soldered.

IF Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001, and tune in a color bar signal on PIP tuner. Connect DC voltmeter to pin 4 of U8101. Connect ground to tuner shield.
- 2. Select parameter (3 59) and adjust value to have minimum voltage at pin 4 of U8101.
- 3. Select parameter (3 58) and adjust value to have minimum voltage at pin 4 of U8101.
- 4. Repeat steps 2 and 3 until no reduction in voltage reading at pin 4 of U8101 can be achieved.

Band 2 Manual Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 50 output and tune to receive channel 50 on PIP tuner.
- 3. Adjust L703 for 4.9V ±1V.
- 4. Connect voltmeter across C8117.
- 5. Select parameter (3 31) and record the value. Adjust parameter (3 31) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L104 and repeat this step. If the null voltage appears, set parameter (3 31) to recorded value and continue to the next step.
- 6. Select parameter (3 32) and record the value. Adjust parameter (3 32) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L109 and repeat this step. If the null voltage appears, set parameter (3 32) to recorded value and continue to the next step.
- 7. Select parameter (3 33) and record the value. Adjust parameter (3 33) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L107 and repeat this step. If the null voltage appears, set parameter (3 33) to recorded value.

Band 1 Manual Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 17 output and tune to receive channel 17 on PIP tuner.
- 3. Adjust L704 for 4.6V ±1V.
- 4. Connect voltmeter across C8117.
- 5. Select parameter (3 13) and record the value. Adjust parameter (3 13) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L105 and repeat this step. If the null voltage appears, set parameter (3 13) to recorded value and continue to the next step.

- 6. Select parameter (3 14) and record the value. Adjust parameter (3 14) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L111 and repeat this step. If the null voltage appears, set parameter (3 14) to recorded value and continue to the next step.
- 7. Select parameter (3 15) and record the value. Adjust parameter (3 15) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L108 and repeat this step. If the null voltage appears, set parameter (3 15) to recorded value.

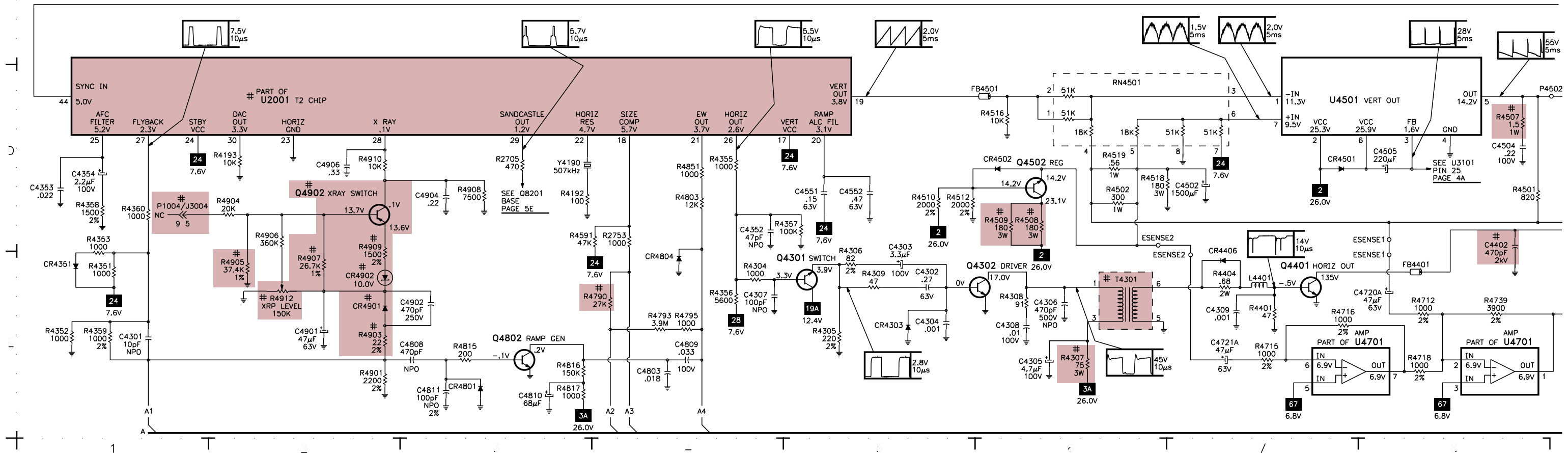
Band 3 Manual Alignment

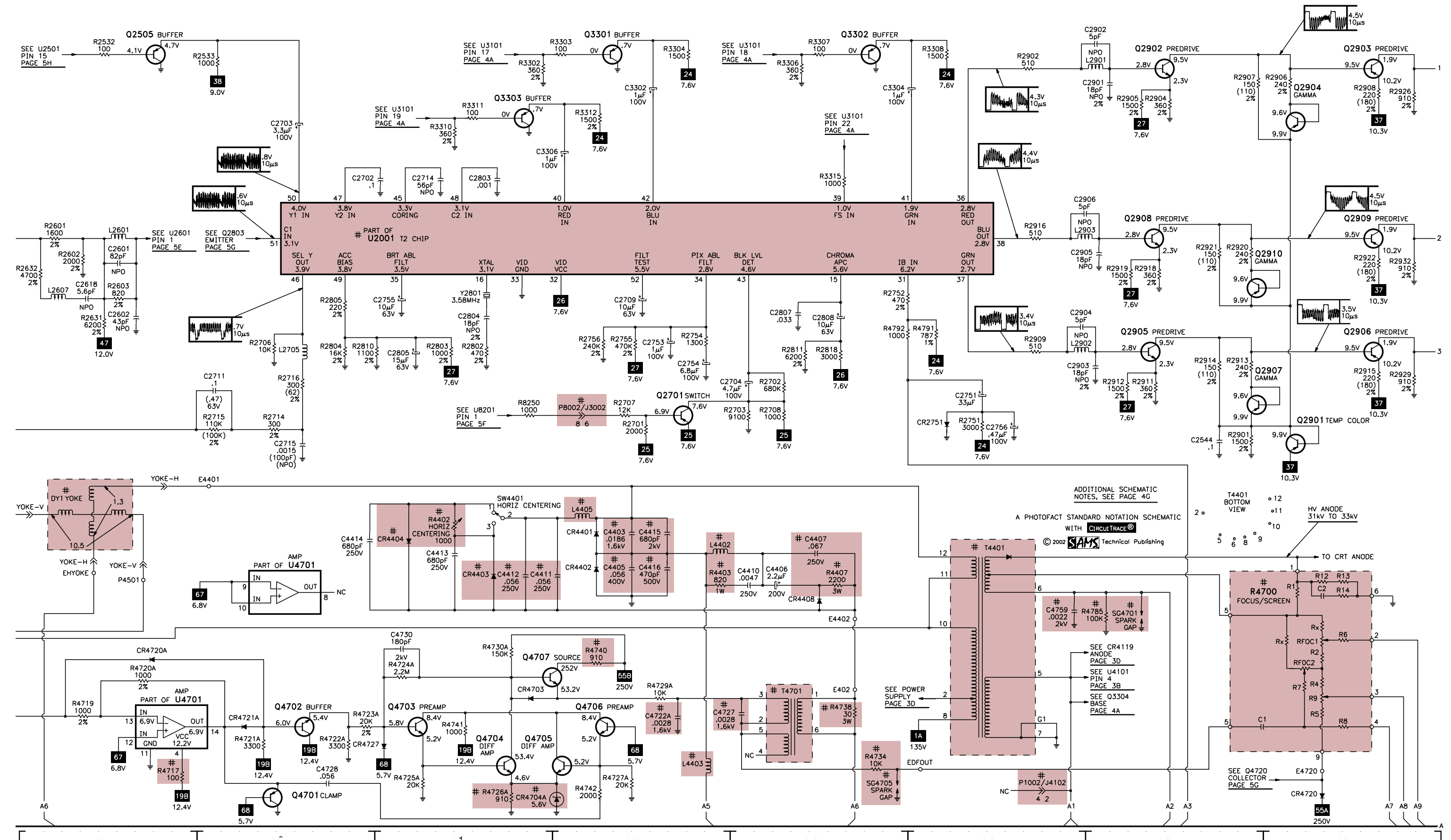
- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Set the tuner alignment generator for channel 125 output and tune to receive channel 125 on PIP tuner.
- 3. Adjust L701 for 4.8V ±1V.
- 4. Connect voltmeter across C8117.
- 5. Select parameter (3 55) and record the value. Adjust parameter (3 55) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L302 and repeat this step. If the null voltage appears, set parameter (3 55) to recorded value and continue to the next step.
- 6. Select parameter (3 56) and record the value. Adjust parameter (3 56) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L305 and repeat this step. If the null voltage appears, set parameter (3 56) to recorded value and continue to the next step.
- 7. Select parameter (3 57) and record the value. Adjust parameter (3 57) thru the value range and check for a null AGC voltage. If the null voltage does not appear, adjust L304 and repeat this step. If the null voltage appears, set parameter (3 57) to recorded value.

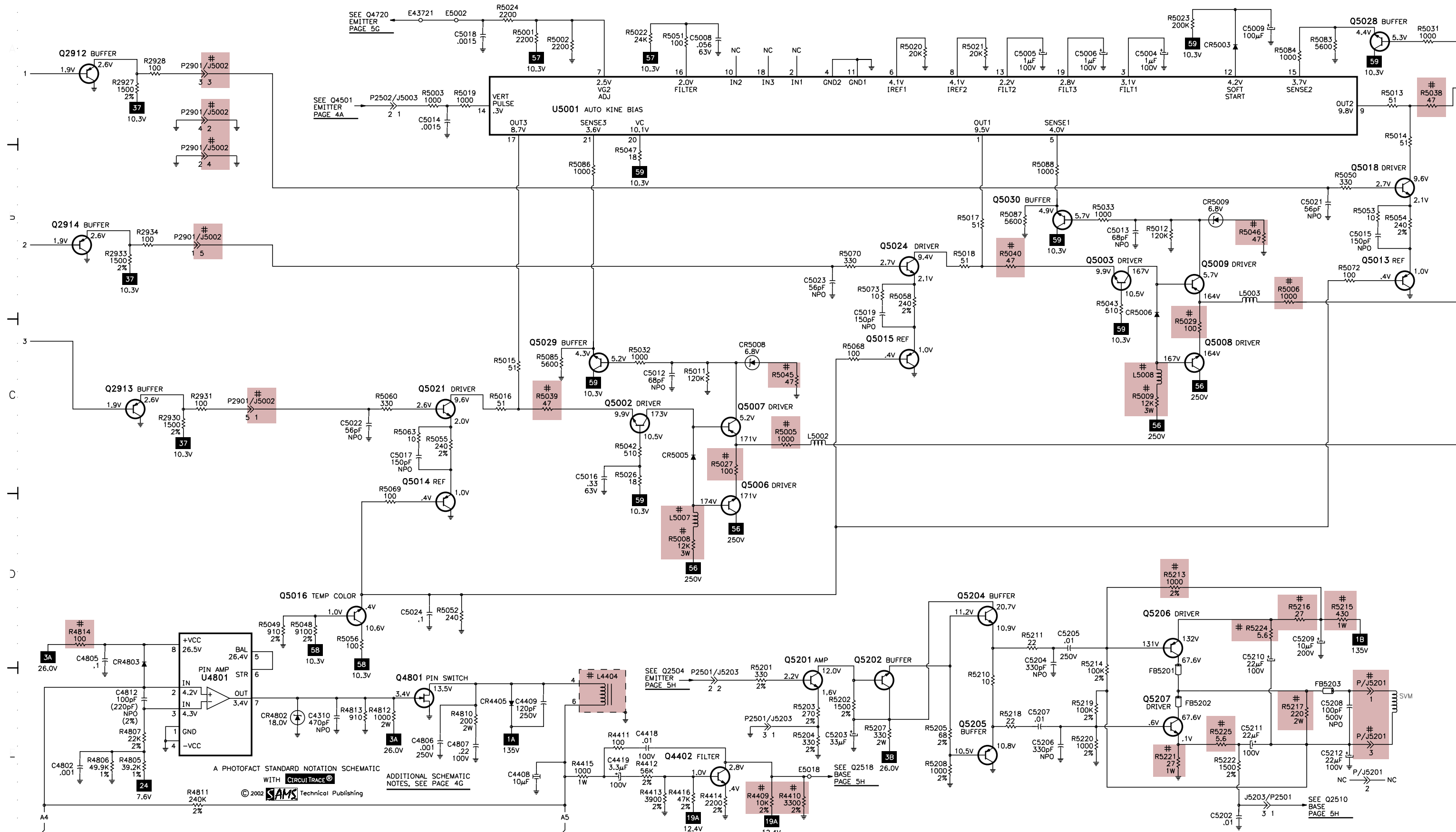
RF AGC Alignment

- 1. Use tuner alignment generator, RCA stock no. TAG001. Connect DC voltmeter to the junction of R509 and R510. Connect ground to tuner shield.
- 2. Connect voltmeter across C8117.
- 3. Set the tuner alignment generator for channel 2 output and tune to receive channel 2 on PIP tuner.
- 4. Select parameter (3 1) and adjust value to have minimum DC voltage.
- 5. Select parameter (3 2) and adjust value to have minimum DC voltage.
- 6. Select parameter (3 3) and adjust value to have minimum DC voltage.
- 7. The adjustments for each channel must be repeated to assure correct alignment.
- 8. Repeat the process with parameters (3 4) thru (3 57) and repeat the adjustments for each channel to assure correct alignment.

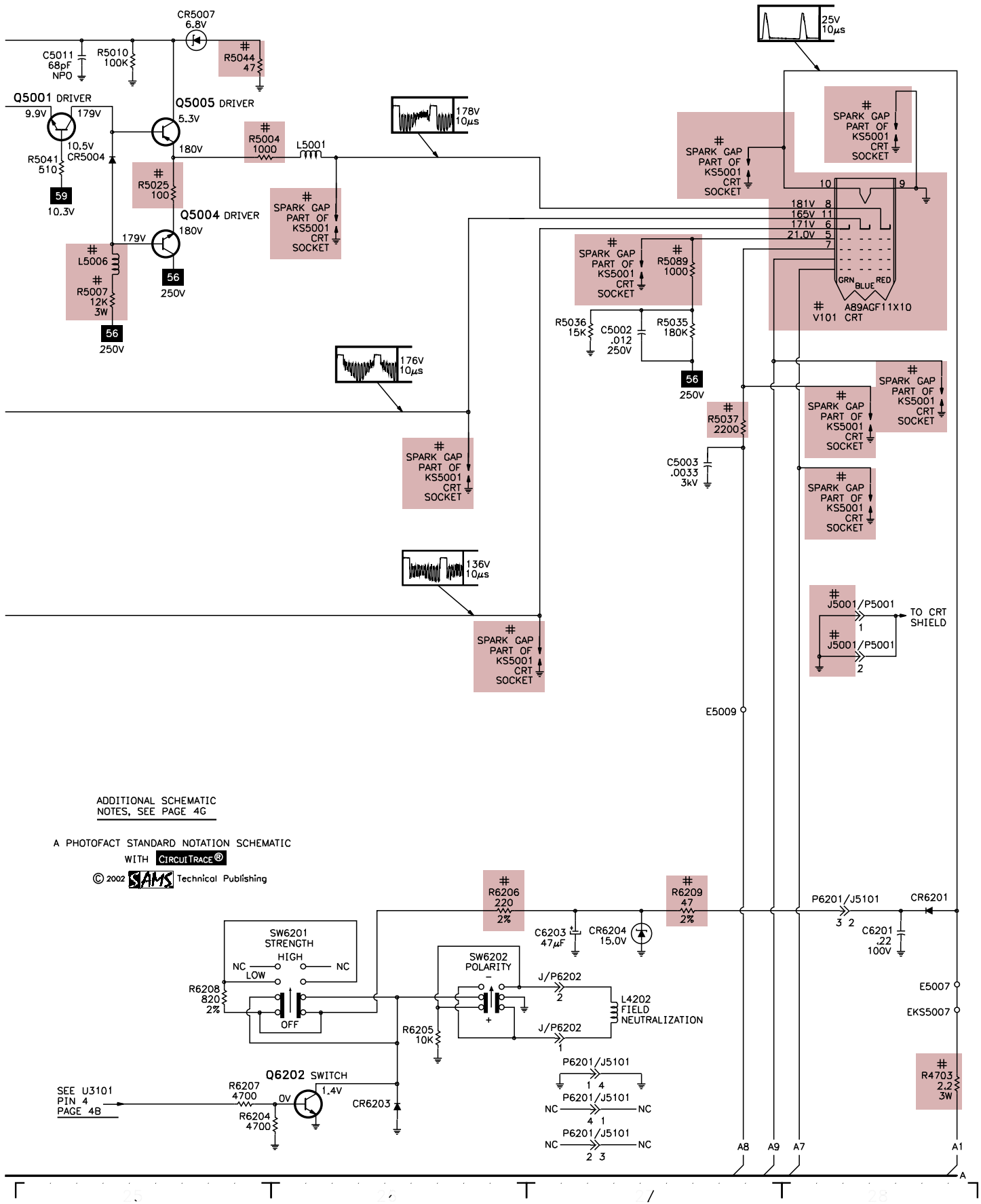






**TELEVISION SCHEMATIC** continued**TELEVISION SCHEMATIC** continued

G  
TELEVISION SCHEMATIC continued



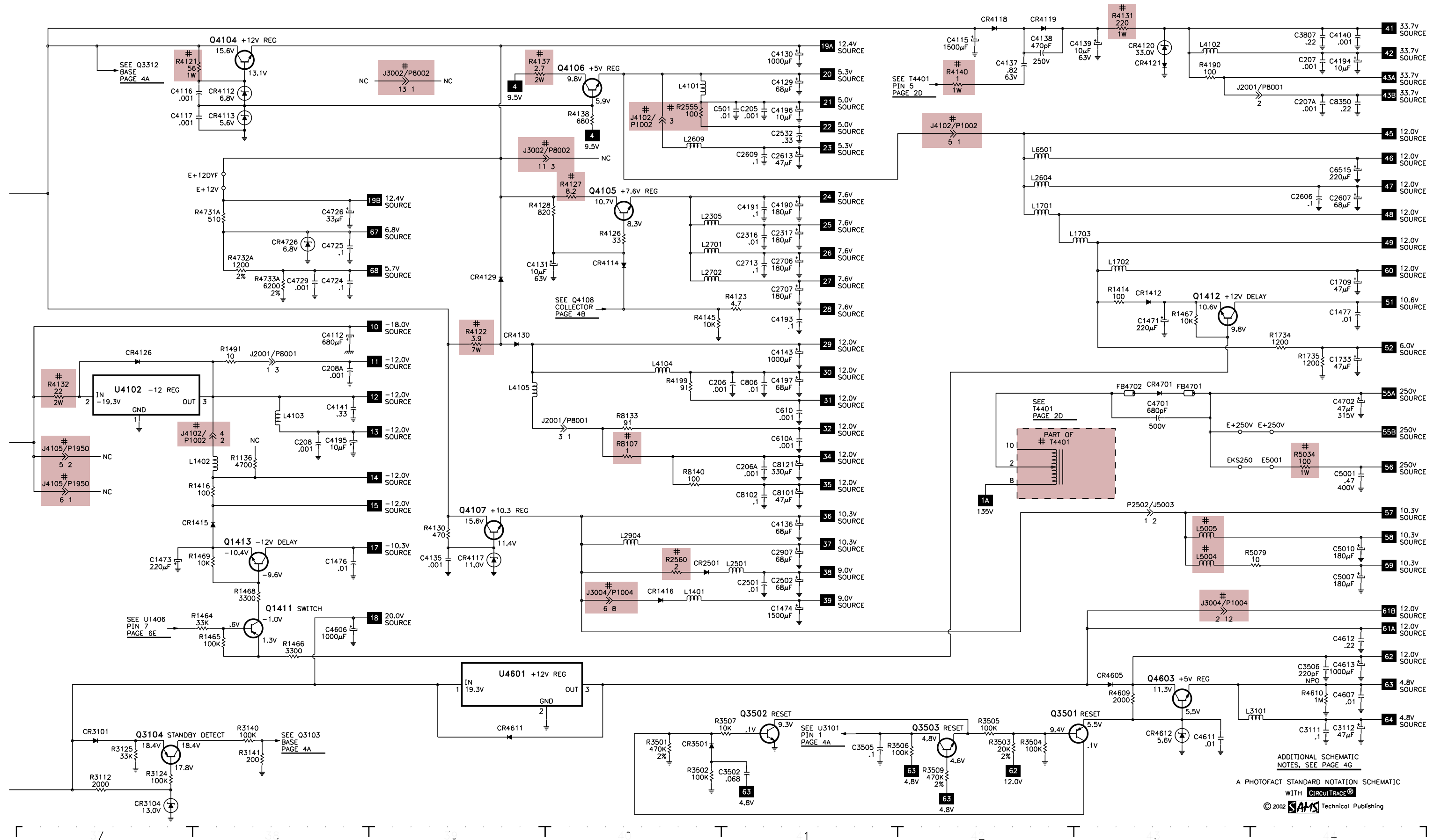
TEST EQUIPMENT

Test equipment listed by participating manufacturer illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.

| Equipment             | Sencore No. |
|-----------------------|-------------|
| Oscilloscope          | SC3100      |
| Generators            |             |
| RGB                   | CM2125      |
| Multiburst Signal     | VG91        |
| Color Bar             | VG91        |
| TV Stereo             | VG91        |
| Digital VOM           | SC3100      |
| Frequency Meter       | SC3100      |
| Hi-Voltage Probe      | HP200       |
| Accessory Probes      | TP212       |
| Isolation Transformer | PR570       |
| Capacitance Analyzer  | LC102       |
| CRT Analyzer          | CR7000      |
| AC Leakage Tester     | PR570       |
| Inductance Analyzer   | LC102       |
| Flyback Yoke Tester   | TVA92       |
| Field Strength Meter  | SL753       |
| Transistor Tester     | TF46        |
| Horizontal Analyzer   | HA-2500     |
| Video Analyzer        | VG91, TVA92 |

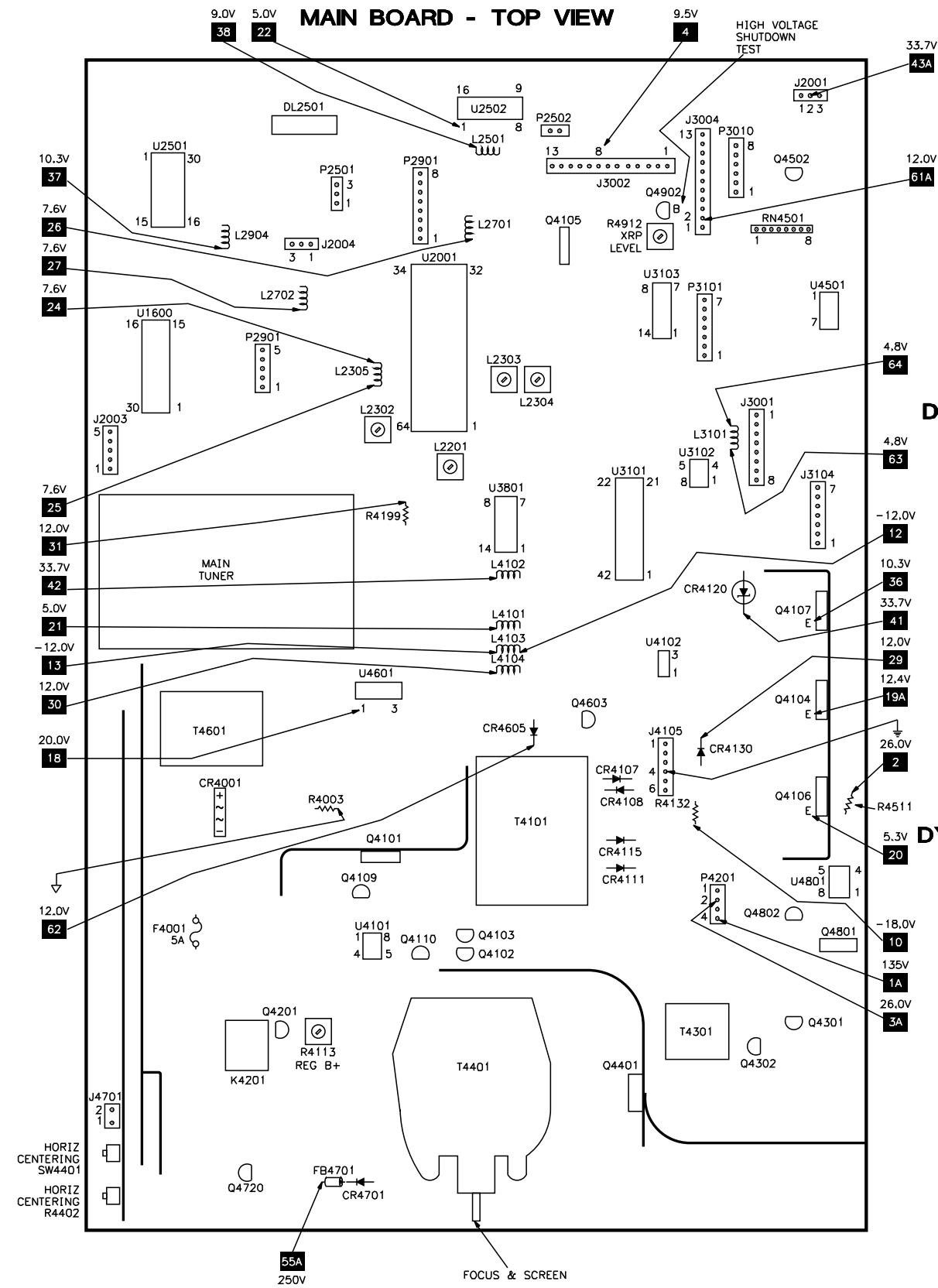


WITH **CIRCUITRACE®**

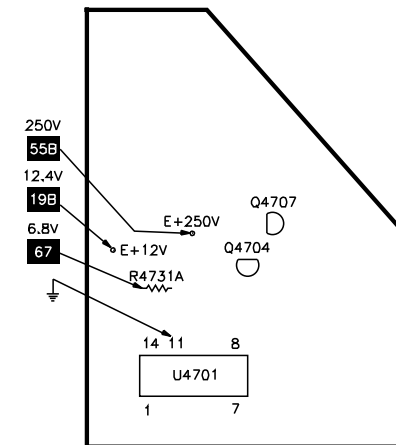




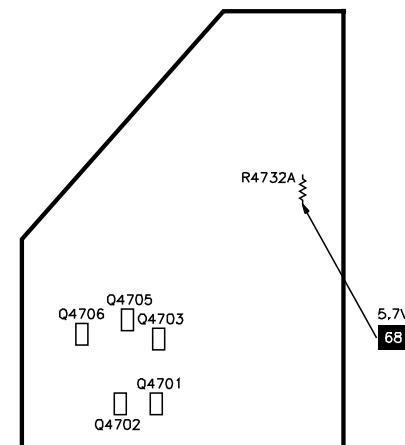
## PLACEMENT CHART



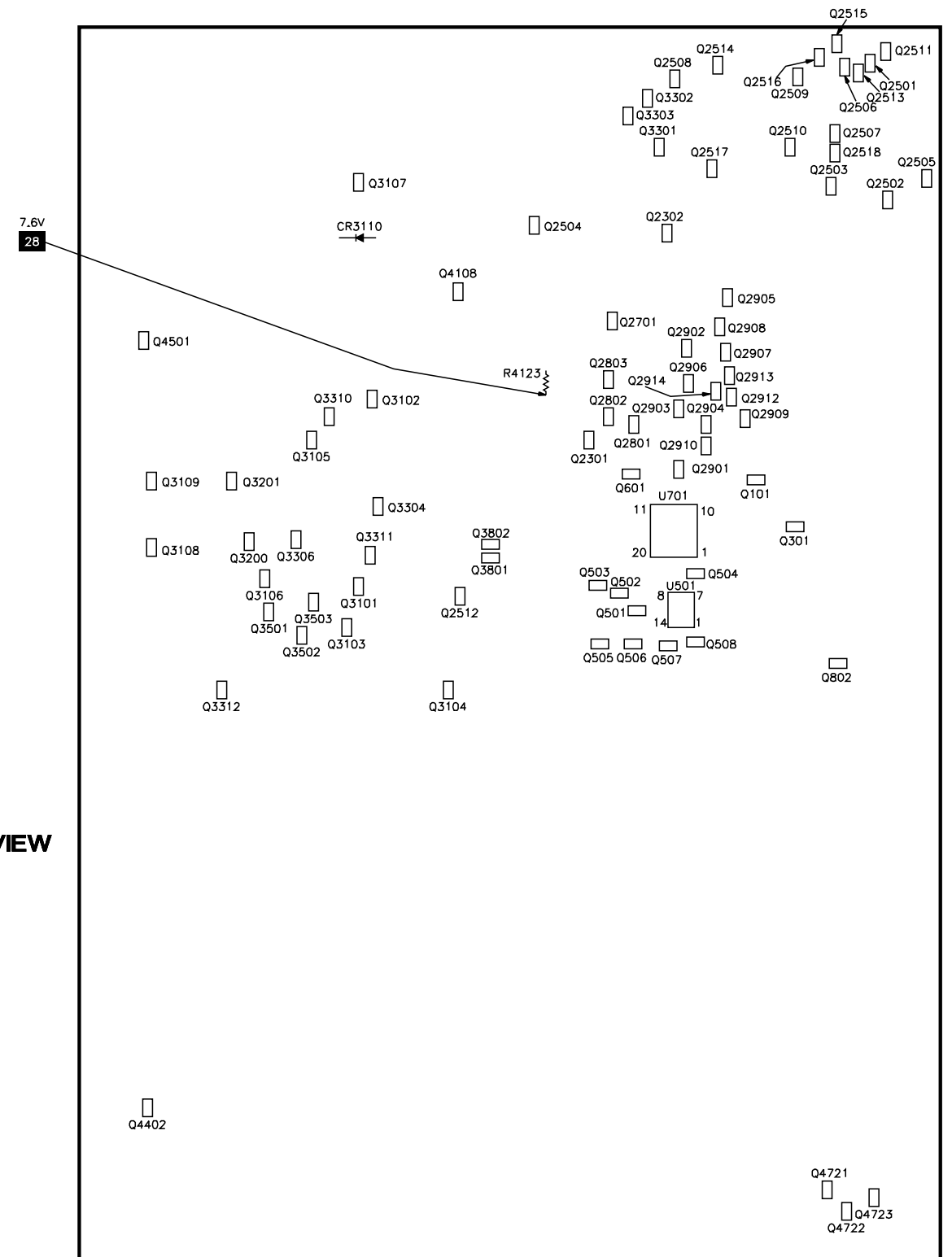
### DYNAMIC FOCUS BOARD - TOP VIEW



### DYNAMIC FOCUS BOARD - BOTTOM VIEW

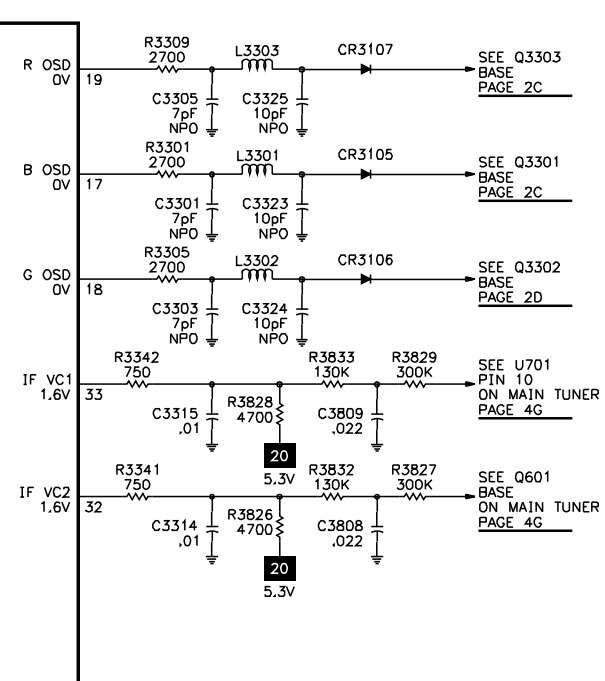


### MAIN BOARD - BOTTOM VIEW

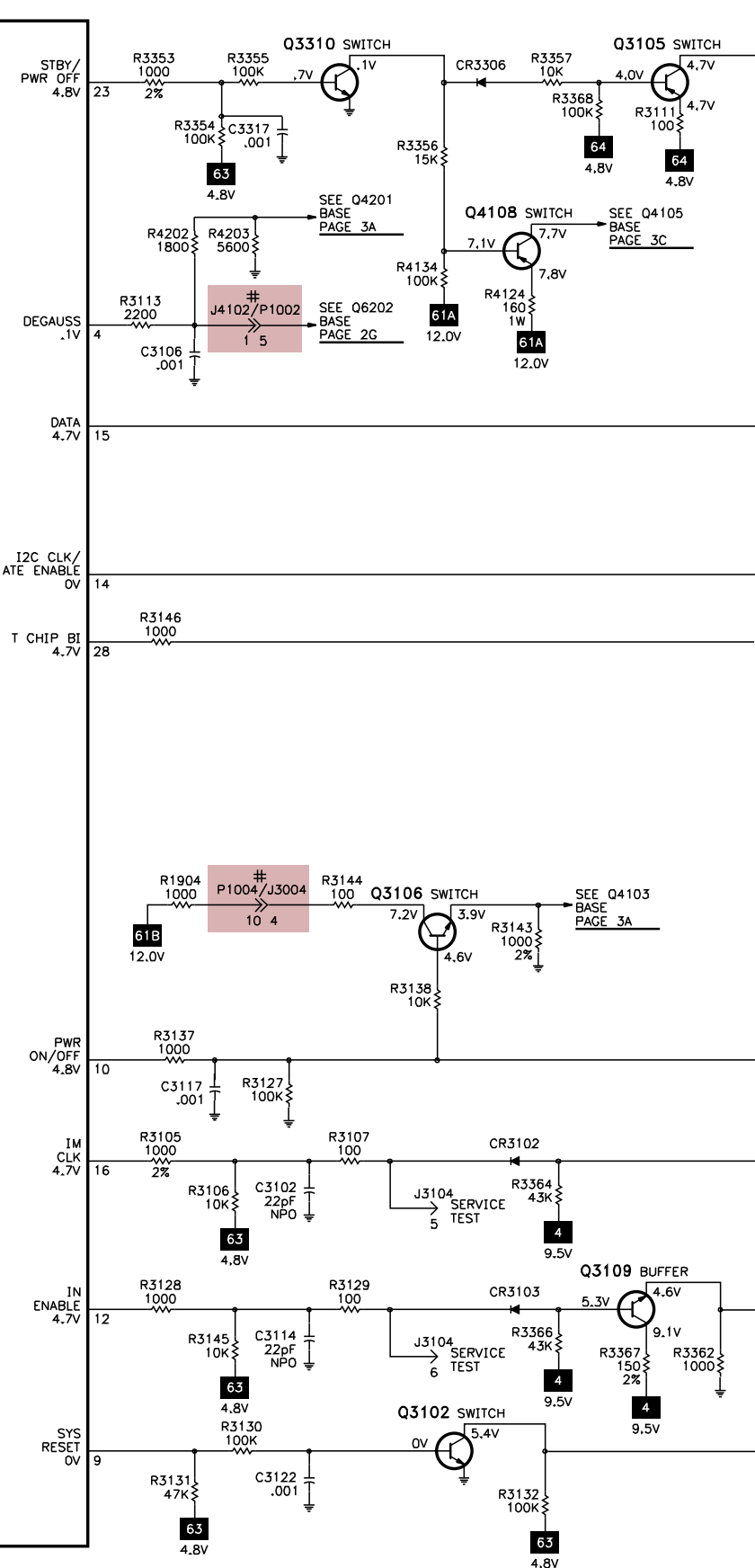
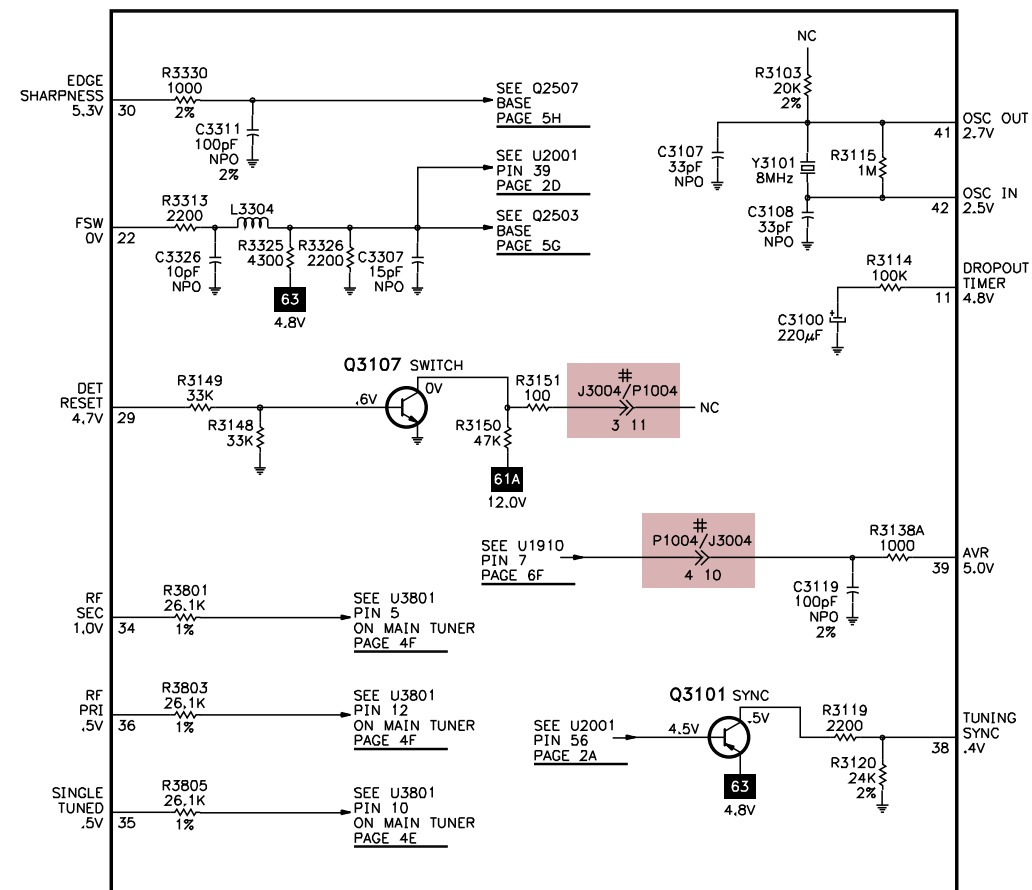






[illegible]

© 2002 **SAMS** Technical Publishing



C  
SYSTEM CONTROL SCHEMATIC continued

PIP TUNER/IF VOLTAGE CHART

| Pin No. | VHF Low Band              | VHF High Band | UHF Band |
|---------|---------------------------|---------------|----------|
| U501    |                           |               |          |
| 1       | 1.8V                      | 1.8V          | 1.8V     |
| 2       | 3.3V                      | 3.3V          | 3.3V     |
| 3       | 4.7V                      | 4.7V          | 4.7V     |
| 4       | 4.7V                      | 4.7V          | 4.7V     |
| 5       | 4.7V                      | 4.7V          | 4.7V     |
| 6       | 12.2V                     | .1V           | 12.0V    |
| 7       | 0V                        | 0V            | 0V       |
| 8       | 12.0V                     | 11.8V         | 0V       |
| 9       | 12.2V                     | 12.2V         | 12.2V    |
| 10      | 5.0V                      | 5.0V          | 5.0V     |
| 11      | 1.9V                      | 1.9V          | 1.9V     |
| 12      | 1.9V                      | 1.9V          | 1.9V     |
| 13      | 0V                        | 0V            | 0V       |
| 14      | DO NOT MEASURE DC VOLTAGE |               |          |

|      |       |       |       |
|------|-------|-------|-------|
| U701 |       |       |       |
| 1    | 8.1V  | 8.1V  | 8.1V  |
| 2    | 8.1V  | 8.1V  | 8.1V  |
| 3    | 0V    | 0V    | 0V    |
| 4    | 4.0V  | 4.0V  | 3.5V  |
| 5    | 4.0V  | 4.0V  | 3.5V  |
| 6    | 3.7V  | 3.7V  | 3.9V  |
| 7    | 3.7V  | 3.7V  | 3.9V  |
| 8    | 11.9V | 11.9V | 11.4V |
| 9    | 11.9V | 11.9V | 11.4V |
| 10   | 11.9V | 11.9V | 11.4V |
| 11   | 0V    | 0V    | 4.1V  |
| 12   | 2.7V  | 2.7V  | 2.7V  |
| 13   | 4.7V  | 4.7V  | 7.9V  |
| 14   | 4.7V  | 4.7V  | 7.9V  |
| 15   | 2.7V  | 2.7V  | 2.7V  |
| 16   | 2.9V  | 2.9V  | 2.9V  |
| 17   | 8.0V  | 8.0V  | 4.3V  |
| 18   | 8.0V  | 8.0V  | 4.7V  |
| 19   | 2.9V  | 2.9V  | 2.9V  |
| 20   | 0V    | 0V    | 0V    |

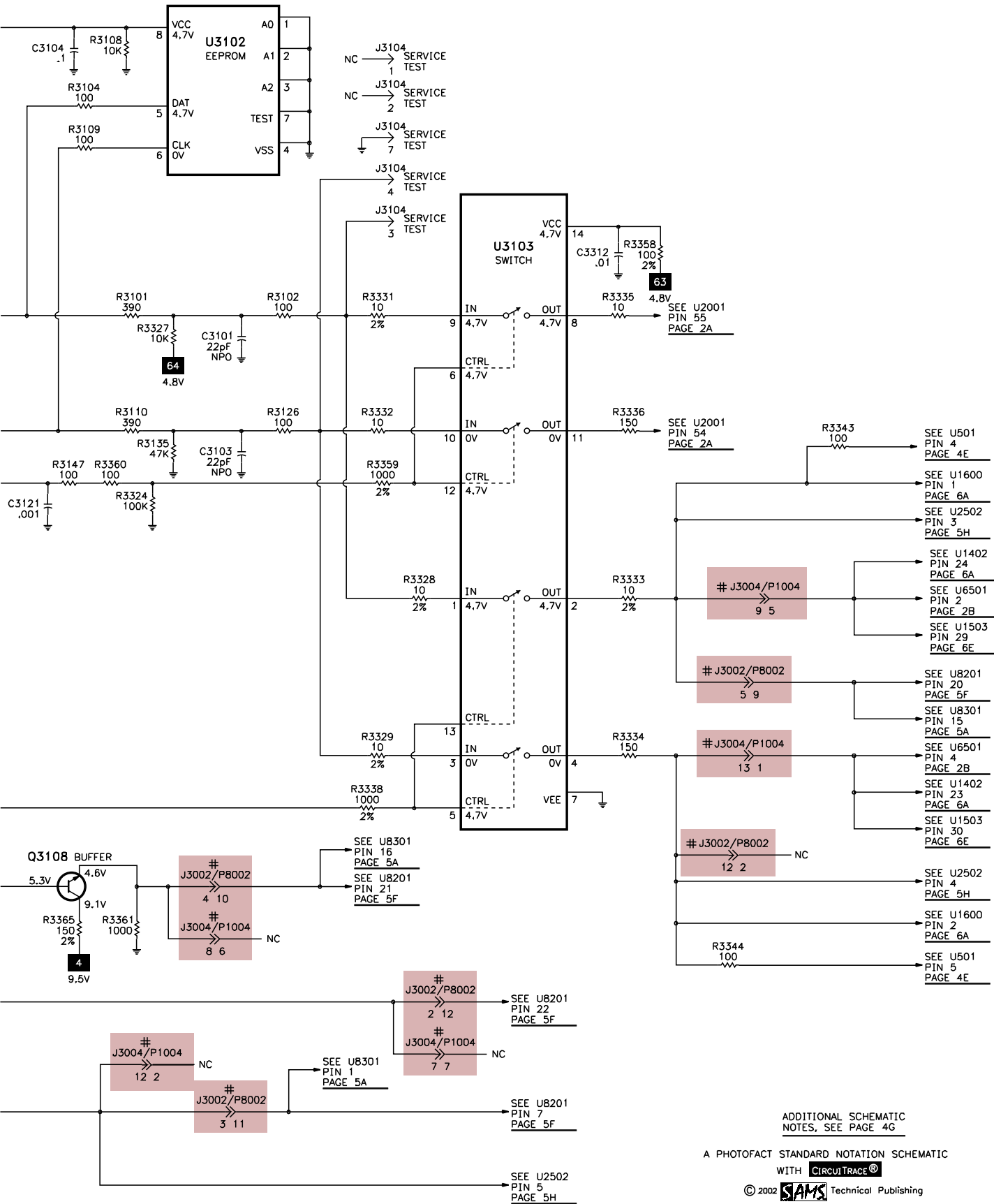
| Pin No. | VHF Low Band | VHF High Band | UHF Band |
|---------|--------------|---------------|----------|
| Q101    |              |               |          |
| G1      | 1.7V         | 1.7V          | 0V       |
| G2      | 2.3V         | 23V           | 2.3V     |
| D       | 10.7V        | 10.7V         | 0V       |
| S       | 0V           | 0V            | 0V       |
| Q301    |              |               |          |
| G1      | 0V           | 0V            | 4.0V     |
| G2      | .5V          | .5V           | .5V      |
| D       | 0V           | 0V            | 10.3V    |
| S       | 0V           | 0V            | 4.9V     |
| Q501    |              |               |          |
| E       | 12.0V        | 12.0V         | 12.0V    |
| B       | 12.2V        | .1V           | 12.0V    |
| C       | -11.9V       | 11.9V         | -11.9V   |

|      |       |       |       |
|------|-------|-------|-------|
| Q506 |       |       |       |
| E    | 12.0V | 12.0V | 12.0V |
| B    | -4.3V | -4.3V | -4.3V |
| C    | 11.9V | 11.8V | 11.4V |

|      |       |       |       |
|------|-------|-------|-------|
| Q507 |       |       |       |
| E    | 11.9V | 11.8V | 11.4V |
| B    | 12.0V | 11.8V | 0V    |
| C    | -2.4V | -2.5V | 11.2V |

|      |       |       |        |
|------|-------|-------|--------|
| Q508 |       |       |        |
| E    | 11.9V | 11.8V | 11.4V  |
| B    | -2.4V | -2.5V | 11.2V  |
| C    | 11.9V | 11.8V | -11.7V |

NOTE: VHF Low Band voltages taken on channel 2.  
VHF High Band voltages taken on channel 7.  
UHF Band voltages taken on channel 14.





**F**



**G**



- x— Circuitry not used in some versions.
- Circuitry used in some versions.
- ⊥ Ground
- ⏏ Chassis ground
- ▽ Common tie point
- △ Taken from common tie point

A — Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless otherwise noted.

Waveforms taken with triggered scope and colorbar signal.

Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.

Supply voltages maintained as seen at input.

Voltages measured with digital meter and a 1000 $\mu$ V RF signal, with colorbar pattern applied to antenna terminal.

Controls adjusted for normal operation.

Capacitors are 50 volts or less, 5% or greater unless noted.

Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.

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

Value in ( ) used in some versions.

Measurements with switching as shown unless noted.

Rated voltage shown on zener diodes.

© 2002 **SAMS** Technical Publishing

## MAIN TUNER VOLTAGE CHART

NOTE: VHF Low Band voltages taken on channel 2.  
VHF High Band voltages taken on channel 7.  
UHF Band voltages taken on channel 14.

**MODEL P335160FM1 (CHASSIS CTC179DJ)**

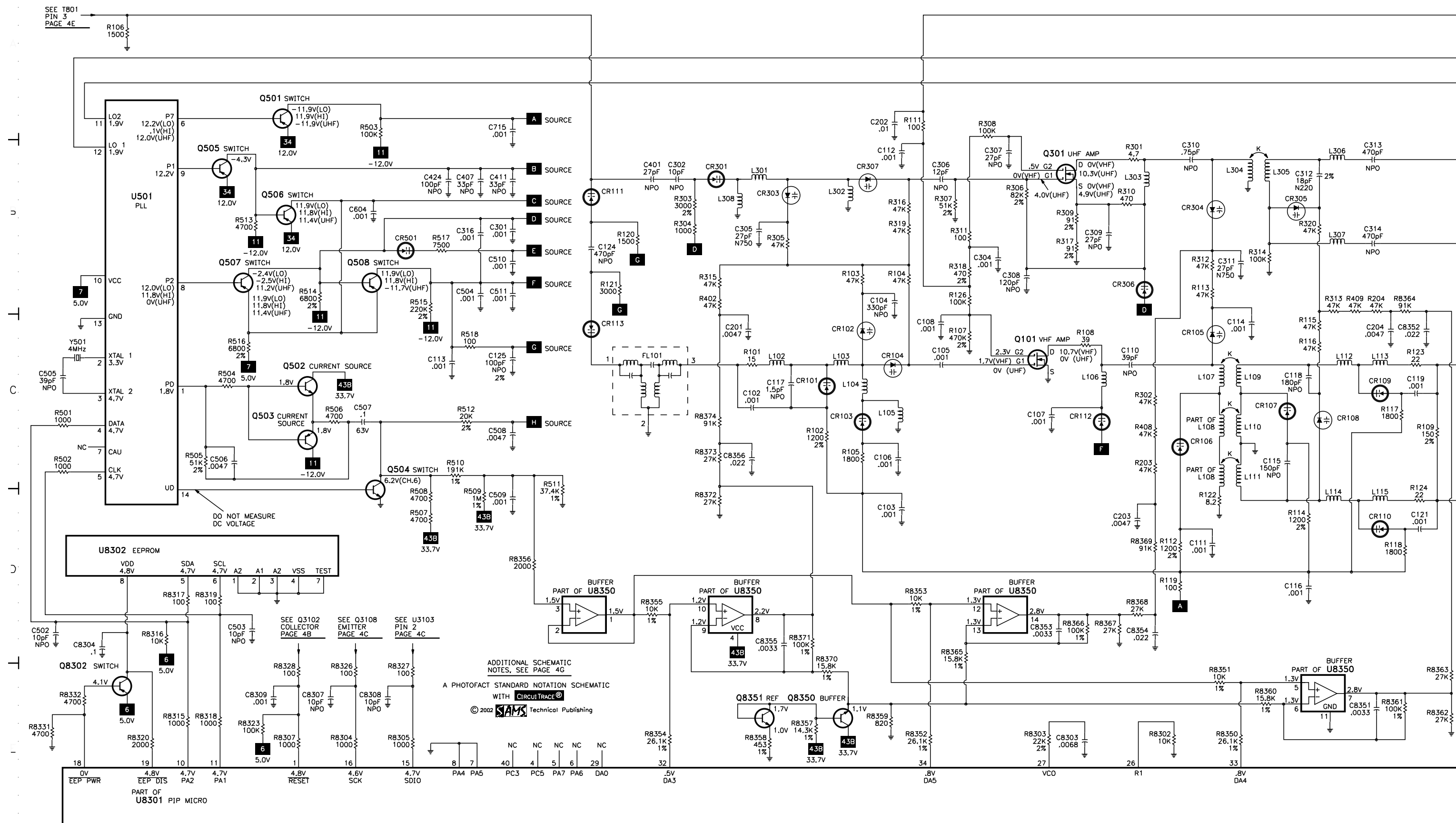


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 4G

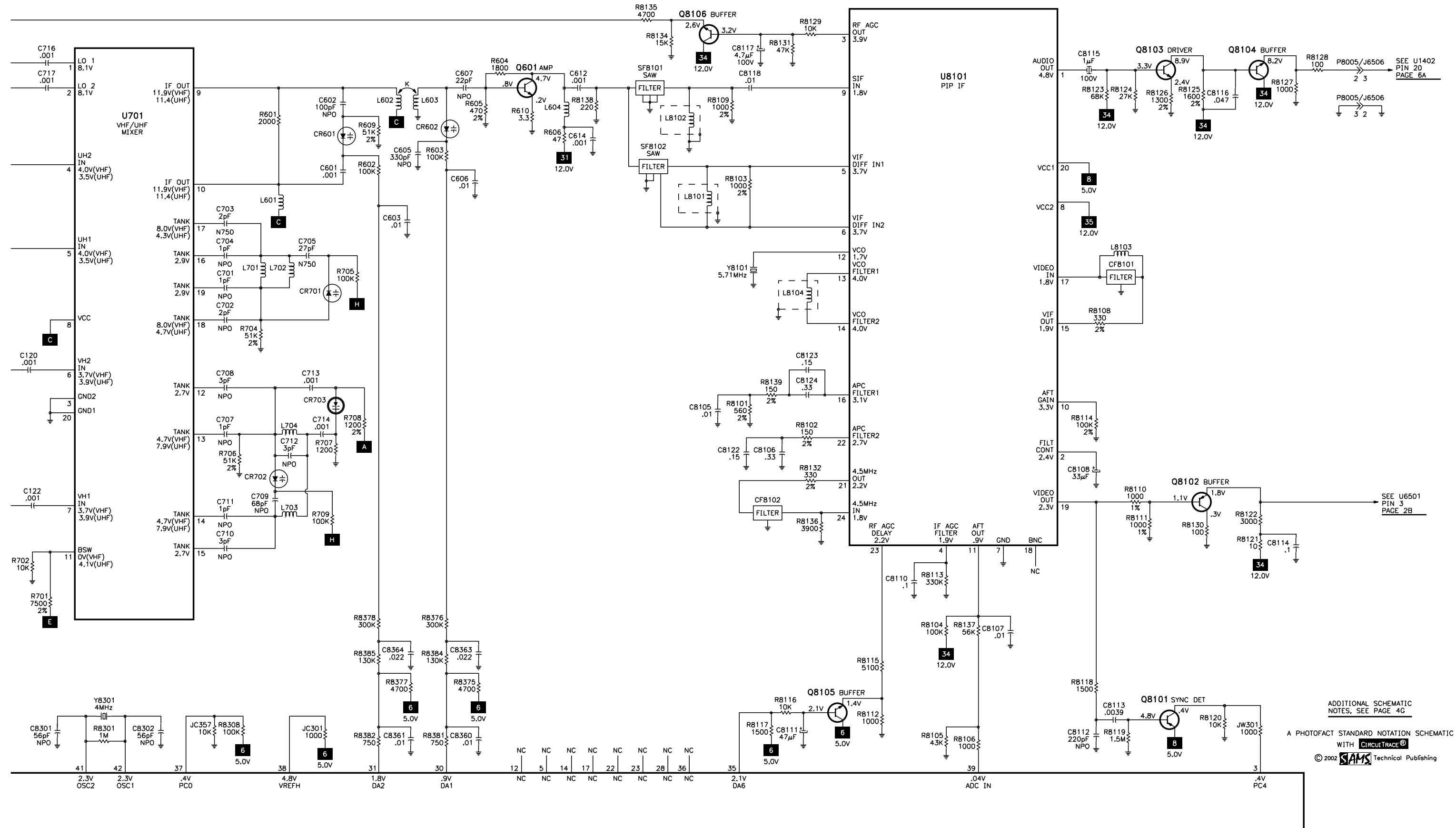
---

TOFACT STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITRACE®**

© 2002 **SAMS** Technical Publishing



## PIP TUNER/IF SCHEMATIC continued



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 4G

---

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITTRACE®**

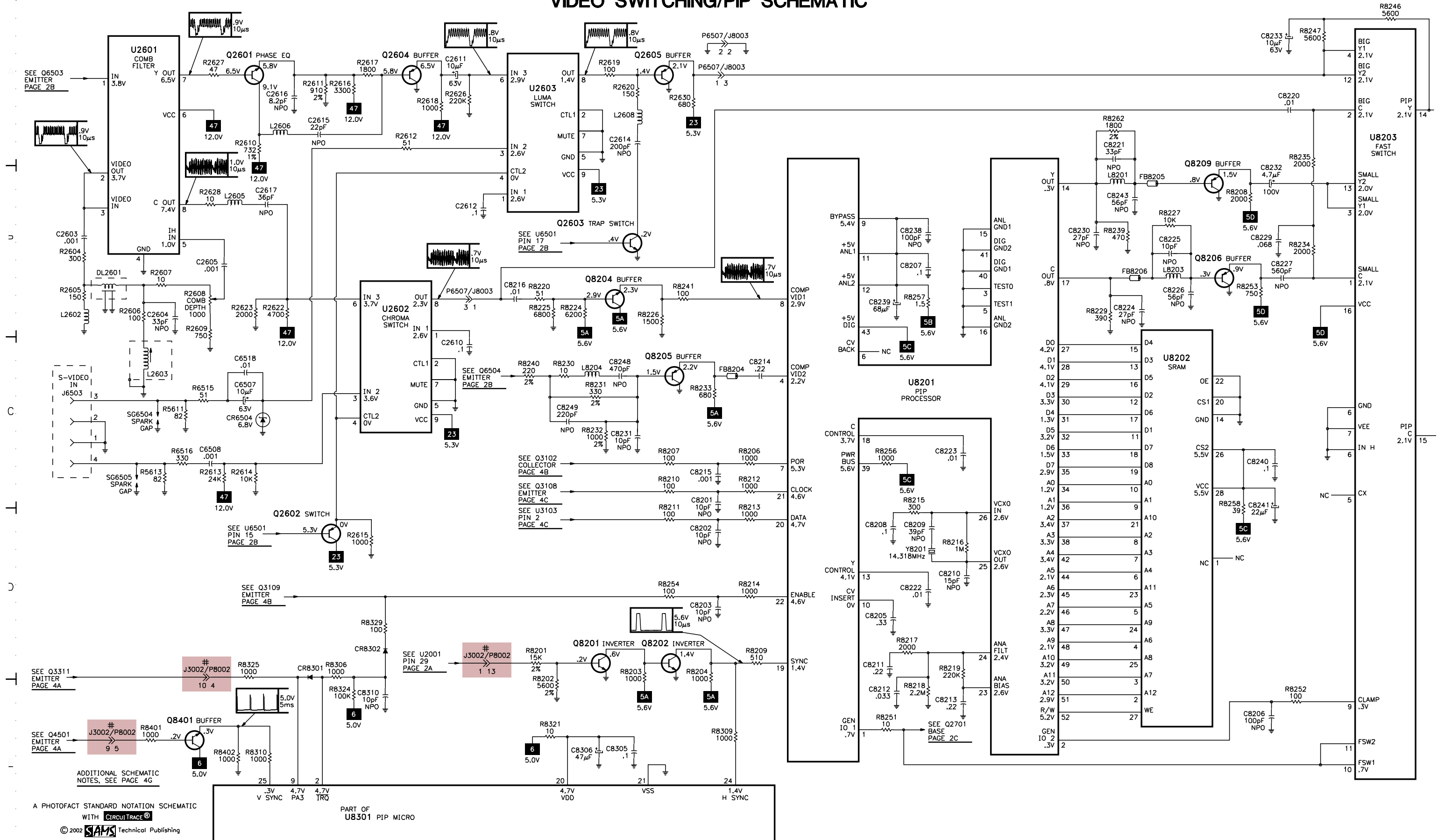
© 2002 **SAMS** Technical Publishing



E

## VIDEO SWITCHING/PIP SCHEMATIC

F



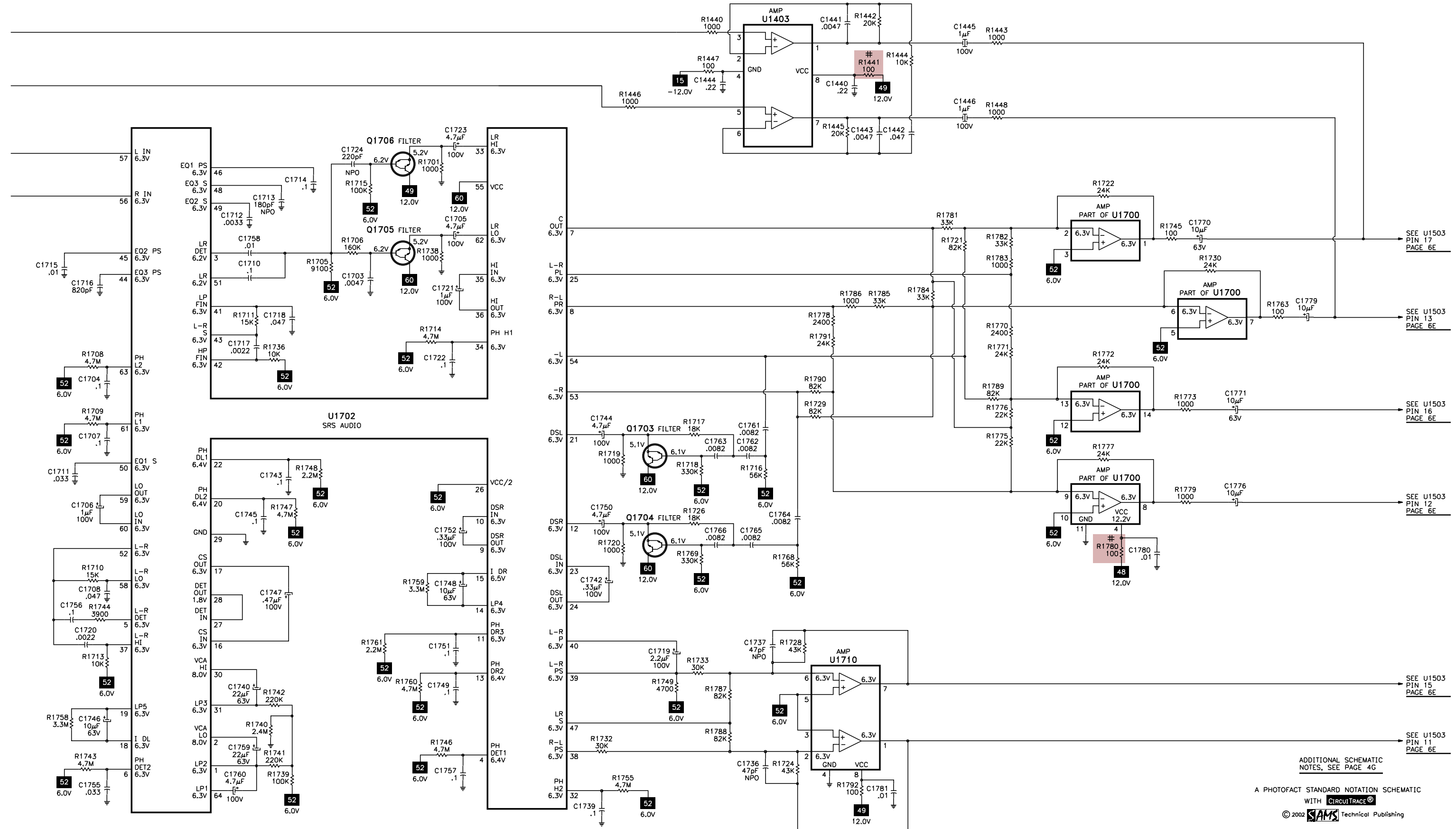


WITH **CIRCUITRACE®**

© 2002 **SAMS** Technical Publishing



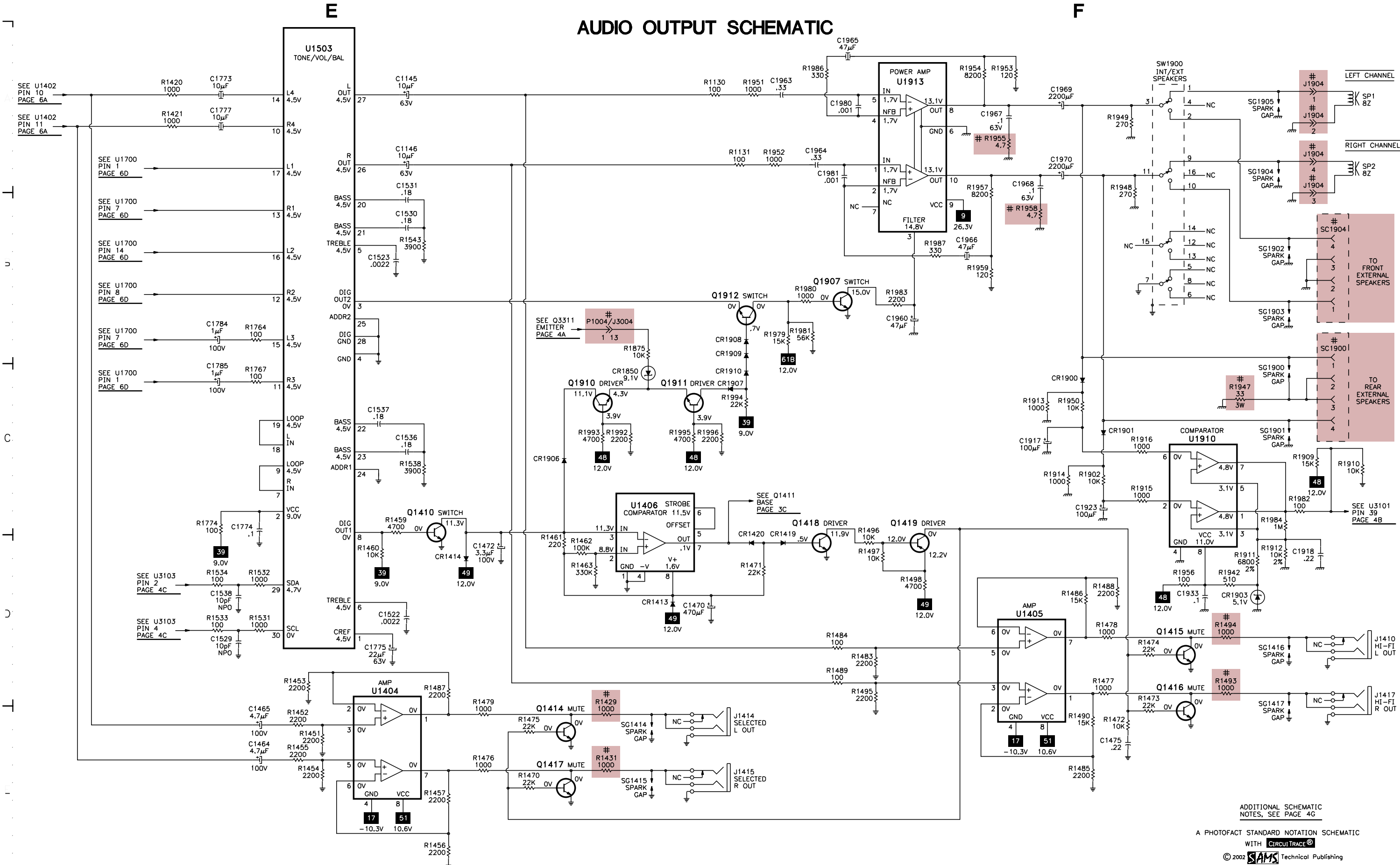
AUDIO SCHEMATIC continued



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 4G

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCUITRACE®  
© 2002 SAMS Technical Publishing

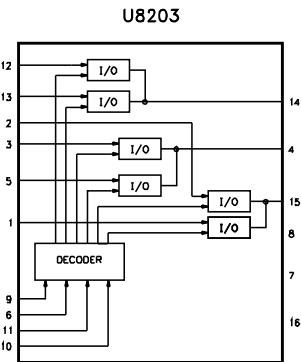
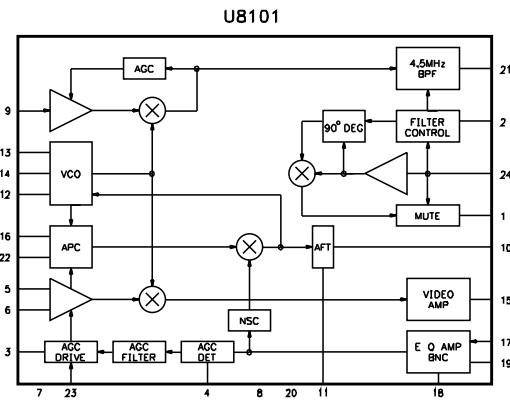
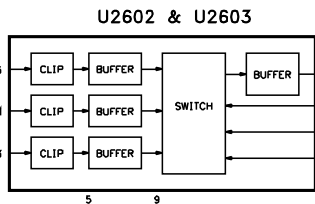
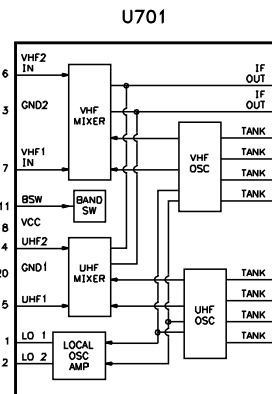
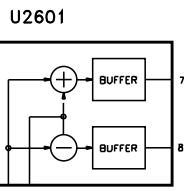
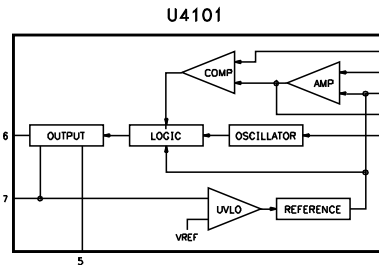
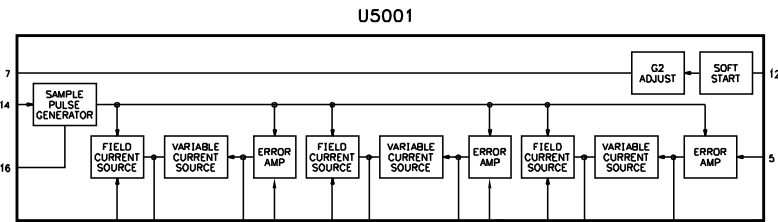
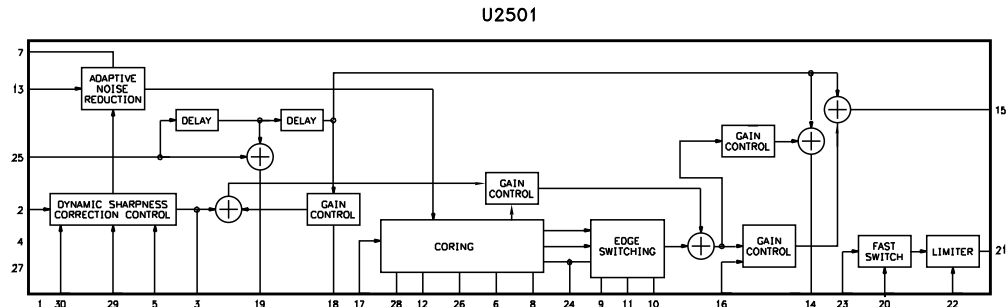
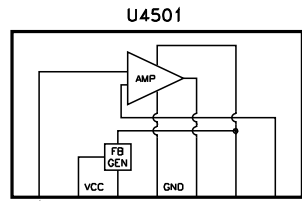
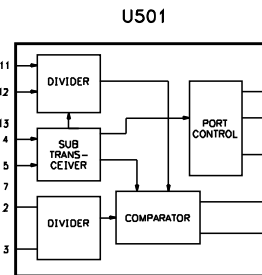
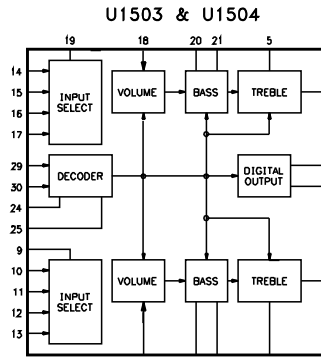
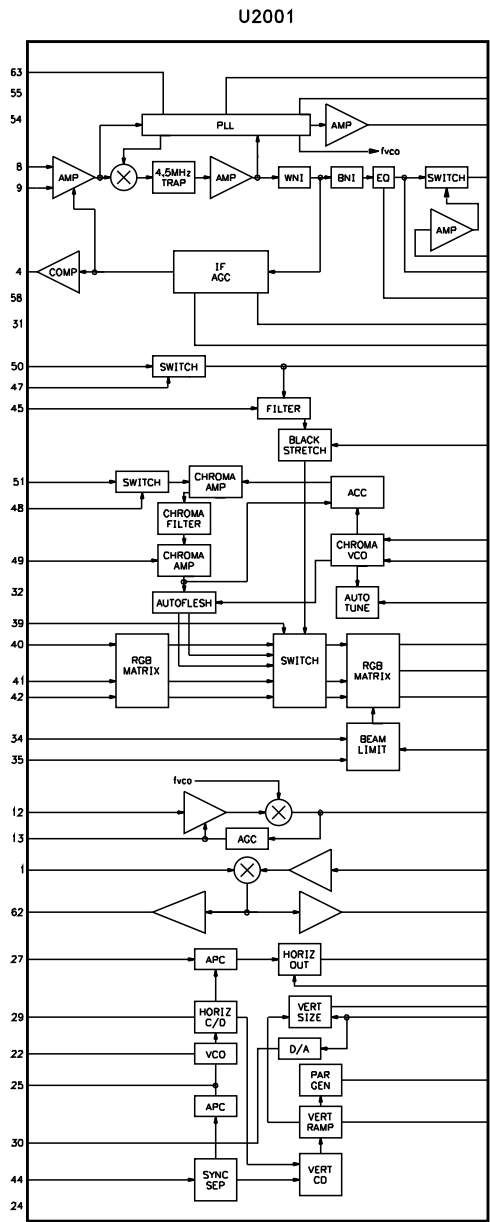
AUDIO OUTPUT SCHEMATIC



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 4G

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCUITRACE®  
© 2002 SAMS Technical Publishing

IC FUNCTIONS



PROSCAN

MODEL PS35160FM1 (CHASSIS CTC179DJ)



SCHEMATIC COMPONENT LOCATION GUIDE

|      |     |      |     |       |      |       |      |       |      |       |      |        |     |       |     |        |     |       |     |        |     |         |       |         |     |        |      |       |     |       |      |       |     |       |     |
|------|-----|------|-----|-------|------|-------|------|-------|------|-------|------|--------|-----|-------|-----|--------|-----|-------|-----|--------|-----|---------|-------|---------|-----|--------|------|-------|-----|-------|------|-------|-----|-------|-----|
| C101 | C60 | C312 | B64 | C712  | C78  | C1554 | E106 | C1762 | C113 | C2519 | D96  | C3107  | C49 | C4120 | B36 | C4604  | E36 | C6503 | A7  | C8246  | B34 | CR703   | C78   | CR4502  | D6  | FB8202 | C36  | L601  | B78 | L6501 | B42  | Q2603 | B88 | Q5002 | C20 |
| C102 | C61 | C312 | B76 | C712  | D66  | C1555 | E106 | C1763 | C112 | C2520 | D96  | C3108  | D50 | C4121 | A36 | C4606  | D38 | C6504 | B5  | C8247  | B35 | CR803   | B58   | CR4601  | E36 | FB8203 | C35  | L602  | A67 | L6502 | C6   | Q2604 | A87 | Q5003 | B23 |
| C102 | C73 | C313 | B64 | C713  | C66  | C1556 | C105 | C1764 | D113 | C2521 | B99  | C3109  | A50 | C4123 | B31 | C4607  | E44 | C6505 | C7  | C8248  | C88 | CR1412  | C43   | CR4602  | E36 | FB8204 | C88  | L602  | A79 | L8101 | B80  | Q2605 | A88 | Q5004 | B25 |
| C103 | D61 | C313 | B76 | C713  | C78  | C1557 | C106 | C1765 | D113 | C2522 | A98  | C3110  | A50 | C4124 | D33 | C4611  | E43 | C6507 | C86 | C8249  | C88 | CR1413  | D120  | CR4603  | E36 | FB8205 | B91  | L603  | A67 | L8102 | A80  | Q2701 | C12 | Q5005 | A25 |
| C103 | D73 | C314 | B64 | C714  | C78  | C1558 | E105 | C1766 | D112 | C2523 | B99  | C3111  | E44 | C4125 | A34 | C4612  | D44 | C6508 | C86 | C8301  | E77 | CR1414  | D119  | CR4604  | E36 | FB8206 | B91  | L603  | A79 | L8103 | B83  | Q2801 | C94 | Q5006 | D20 |
| C104 | C61 | C314 | B76 | C714  | D66  | C1559 | E105 | C1770 | B115 | C2524 | C99  | C3112  | E44 | C4126 | A32 | C4613  | E44 | C6511 | C7  | C8302  | E77 | CR1415  | D38   | CR4605  | E43 | FL101  | C60  | L604  | A68 | L8104 | B81  | Q2802 | C94 | Q5007 | C20 |
| C104 | C73 | C316 | B71 | C715  | B71  | C1560 | C106 | C1771 | C115 | C2525 | C98  | C3113  | C4  | C4127 | B32 | C4701  | C43 | C6512 | B6  | C8303  | E74 | CR1416  | D40   | CR4611  | E39 | FL101  | C72  | L604  | A80 | L8105 | C35  | Q2803 | C95 | Q5008 | C23 |
| C105 | C62 | C316 | C59 | C715  | C59  | C1561 | D106 | C1773 | A118 | C2527 | C99  | C3114  | E51 | C4128 | B33 | C4702  | C44 | C6513 | C6  | C8304  | D69 | CR1417  | D29   | CR4612  | E43 | IR3401 | A45  | L701  | B78 | L8106 | C35  | Q2901 | C16 | Q5009 | B23 |
| C105 | C74 | C401 | B60 | C716  | A65  | C1562 | C104 | C1774 | D118 | C2528 | A94  | C3117  | D51 | C4129 | A41 | C4720  | E94 | C6514 | A8  | C8305  | E88 | CR1418  | D29   | CR4701  | C43 | J1     | D108 | L701  | C66 | L8201 | B91  | Q2902 | A15 | Q5013 | B24 |
| C106 | C73 | C401 | B72 | C716  | A77  | C1563 | D104 | C1775 | D119 | C2529 | D100 | C3119  | E50 | C4130 | A41 | C4720A | E8  | C6515 | B44 | C8306  | E88 | CR1419  | D121  | CR4703  | E11 | J2     | A6   | L702  | B78 | L8202 | B34  | Q2903 | A16 | Q5014 | D19 |
| C106 | D61 | C407 | B71 | C717  | A65  | C1601 | B101 | C1776 | D115 | C2530 | B99  | C3120  | E47 | C4131 | B40 | C4721  | E96 | C6516 | C6  | C8307  | E70 | CR1420  | D121  | CR4704A | E12 | J801   | B58  | L702  | C66 | L8203 | B91  | Q2904 | B16 | Q5015 | C21 |
| C107 | C62 | C407 | C59 | C717  | A77  | C1602 | A101 | C1777 | A118 | C2532 | B41  | C3121  | C53 | C4132 | A34 | C4721A | E7  | C6517 | C6  | C8308  | E71 | CR1601  | B102  | CR4720  | E16 | J802   | B58  | L703  | D66 | L8204 | C88  | Q2905 | C15 | Q5016 | D18 |
| C107 | C74 | C410 | D63 | C803  | B58  | C1603 | C102 | C1779 | C116 | C2533 | E97  | C3122  | E51 | C4133 | B34 | C4722  | E94 | C6518 | C86 | C8309  | E70 | CR1850  | C120  | CR4720A | E9  | J1404  | D102 | L703  | D78 | P4001 | A29  | Q2906 | C16 | Q5018 | B24 |
| C108 | C62 | C411 | B71 | C805  | B57  | C1604 | C102 | C1780 | D115 | C2534 | C98  | C3201  | B47 | C4134 | B36 | C4722A | E12 | C6519 | B5  | C8310  | E87 | CR1900  | C123  | CR4721  | E93 | J1405  | D102 | L704  | C78 | Q101  | C62  | Q2907 | C16 | Q5021 | C19 |
| C108 | C74 | C411 | C59 | C806  | C41  | C1605 | C102 | C1781 | E113 | C2535 | E97  | C3202  | C47 | C4135 | D39 | C4723  | E93 | C6520 | B6  | C8350  | A44 | CR1901  | C123  | CR4721A | E10 | J1406  | E102 | L704  | D66 | Q101  | C74  | Q2908 | B15 | Q5024 | B21 |
| C110 | C63 | C424 | B71 | C807  | B58  | C1606 | C102 | C1784 | B118 | C2536 | E97  | C3203  | B47 | C4136 | D41 | C4724  | B38 | C6521 | C6  | C8351  | E76 | CR1903  | D124  | CR4722  | E93 | J1407  | E102 | L801  | B60 | Q301  | B62  | Q2909 | B16 | Q5028 | A24 |
| C110 | C75 | C424 | C59 | C808  | B59  | C1607 | C101 | C1785 | C118 | C2538 | D98  | C3204  | B47 | C4137 | A42 | C4725  | B38 | C6522 | C45 | C8352  | C76 | CR1906  | C120  | CR4723  | E93 | J1410  | D124 | L1401 | D40 | Q301  | B74  | Q2910 | B16 | Q5029 | C20 |
| C111 | D63 | C501 | A41 | C809  | B59  | C1608 | B101 | C1907 | D36  | C2539 | B98  | C3205  | A47 | C4138 | A42 | C4726  | B38 | C8101 | D41 | C8353  | D74 | CR1907  | C121  | CR4726  | B38 | J1414  | E120 | L1402 | C38 | Q501  | B70  | Q2912 | A17 | Q5030 | B22 |
| C111 | D75 | C501 | E57 | C1145 | A119 | C1609 | D102 | C1908 | D36  | C2541 | E100 | C3301  | A48 | C4139 | A43 | C4727  | E13 | C8102 | D41 | C8354  | D75 | CR1908  | B121  | CR4727  | E11 | J1415  | E120 | L1701 | B42 | Q501  | C58  | Q2913 | C17 | Q5201 | E21 |
| C112 | B61 | C502 | D69 | C1146 | A119 | C1610 | D101 | C1917 | C122 | C2542 | B100 | C3302  | A12 | C4140 | A44 | C4728  | E10 | C8103 | C36 | C8355  | D73 | CR1909  | C121  | CR4801  | E3  | J1417  | D124 | L1702 | B43 | Q502  | C70  | Q2914 | B17 | Q5202 | E21 |
| C112 | B73 | C502 | E57 | C1400 | A103 | C1611 | C101 | C1918 | D124 | C2544 | C15  | C3303  | B48 | C4141 | C38 | C4729  | B38 | C8104 | C36 | C8356  | C73 | CR1910  | C121  | CR4802  | E18 | J6501  | A6   | L1703 | B42 | Q502  | D58  | Q3101 | E49 | Q5204 | D22 |
| C113 | C71 | C503 | D70 | C1401 | A103 | C1612 | C101 | C1923 | C123 | C2601 | B9   | C3304  | A13 | C4142 | B34 | C4730  | E11 | C8105 | C80 | C8360  | E79 | CR2201  | B4    | CR4803  | E17 | J6502  | A6   | L2201 | B5  | Q503  | C70  | Q3102 | E52 | Q5205 | E22 |
| C113 | D59 | C504 | B71 | C1404 | D103 | C1613 | C101 | C1933 | D123 | C2602 | C9   | C3305  | A48 | C4143 | C41 | C4759  | D14 | C8106 | C81 | C8361  | E79 | CR2501  | D40   | CR4804  | E4  | J6504  | A8   | L2301 | C3  | Q503  | D58  | Q3103 | E46 | Q5206 | D23 |
| C114 | C63 | C504 | C59 | C1405 | D103 | C1614 | C101 | C1960 | B122 | C2603 | B85  | C3306  | B12 | C4145 | A35 | C4802  | E17 | C8107 | D82 | C8363  | D79 | CR2751  | C14   | CR4901  | E2  | JC301  | E78  | L2302 | B3  | Q504  | D70  | Q3104 | E37 | Q5207 | E23 |
| C114 | C75 | C505 | C69 | C1406 | E103 | C1615 | B102 | C1961 | D36  | C2604 | B85  | C3307  | D49 | C4146 | A34 | C4803  | E4  | C8108 | C82 | C8364  | D79 | CR3101  | E37   | CR4902  | E2  | JC357  | E78  | L2303 | B1  | Q504  | E58  | Q3105 | A52 | Q6202 | E26 |
| C115 | C76 | C505 | D57 | C1407 | E103 | C1616 | C101 | C1962 | D36  | C2605 | B86  | C3309  | C47 | C4147 | A32 | C4805  | D17 | C8110 | D81 | CF2201 | B3  | CR3102  | D52   | CR5001  | E29 | JW301  | E83  | L2304 | A2  | Q505  | B70  | Q3106 | D52 | Q6502 | A7  |
| C115 | D64 | C506 | C70 | C1408 | D103 | C1619 | B102 | C1963 | A121 | C2606 | B44  | C3311  | C48 | C4148 | E32 | C4806  | E19 | C8111 | E81 | CF8101 | B83 | CR3103  | E52   | CR5002  | E29 | JW327  | C4   | L2305 | B40 | Q505  | C58  | Q3107 | D49 | Q6503 | B8  |
| C116 | D64 | C506 | D58 | C1412 | C103 | C1620 | B102 | C1964 | A121 | C2607 | B44  | C3312  | B55 | C4190 | B41 | C4807  | E19 | C8112 | E82 | CF8102 | D81 | CR3104  | E37   | CR5003  | A23 | K4201  | A30  | L2501 | D41 | Q506  | B70  | Q3108 | D53 | Q6504 | C7  |
| C116 | D76 | C507 | C70 | C1428 | E103 | C1621 | B101 | C1965 | A121 | C2609 | B41  | C3314  | B48 | C4191 | B41 | C4808  | E2  | C8113 | E83 | CR101  | C61 | CR3105  | A49   | CR5004  | B25 | K4201  | B29  | L2502 | B96 | Q506  | C58  | Q3109 | E52 | Q8101 | E83 |
| C117 | C61 | C507 | D58 | C1429 | E103 | C1622 | A101 | C1966 | B122 | C2610 | C87  | C3315  | B48 | C4193 | C41 | C4809  | E4  | C8114 | D84 | CR101  | C73 | CR3106  | B49   | CR5005  | C20 | L101   | C60  | L2503 | B98 | Q507  | B70  | Q3200 | B47 | Q8102 | D83 |
| C117 | C73 | C508 | C71 | C1430 | D103 | C1701 | B108 | C1967 | A122 | C2611 | A87  | C3317  | A51 | C4194 | A44 | C4810  | E3  | C8115 | A82 | CR102  | C61 | CR3107  | A49   | CR5006  | C23 | L102   | C61  | L2504 | D96 | Q507  | C58  | Q3201 | B46 | Q8103 | A83 |
| C118 | C64 | C508 | D59 | C1431 | D103 | C1702 | B108 | C1968 | B122 | C2612 | B87  | C3321  | D47 | C4195 | C38 | C4811  | E3  | C8116 | A83 | CR102  | C73 | CR3301  | D45   | CR5007  | A25 | L102   | C73  | L2505 | B98 | Q508  | B70  | Q3301 | A12 | Q8104 | A83 |
| C118 | C76 | C509 | D71 | C1432 | E103 | C1703 | B110 | C1969 | A122 | C2613 | B41  | C3322  | D46 | C4196 | A41 | C4812  | E17 | C8117 | A81 | CR103  | C61 | CR3302  | E47   | CR5008  | C21 | L103   | C61  | L2506 | C93 | Q508  | C58  | Q3302 | A13 | Q8105 | E81 |
| C119 | C64 | C509 | E59 | C1433 | E103 | C1704 | C109 | C1970 | B122 | C2614 | A88  | C3323  | A48 | C4197 | C41 | C4901  | E2  | C8118 | A81 | CR103  | C73 | CR3306  | A52   | CR5009  | B23 | L103   | C73  | L2507 | B96 | Q601  | A67  | Q3303 | B11 | Q8106 | A80 |
| C119 | C76 | C510 | B71 | C1434 | D103 | C1705 | B111 | C1980 | A121 | C2615 | A86  | C3324  | B48 | C4198 | D32 | C4902  | E3  | C8121 | C41 | CR104  | C61 | CR3307  | D45   | CR6201  | D28 | L104   | C61  | L2601 | B9  | Q601  | A79  | Q3304 | D46 | Q8201 | D88 |
| C120 | C65 | C510 | C59 | C1436 | A103 | C1706 | D109 | C1981 | B121 | C2616 | A86  | C3325  | A48 | C4199 | D32 | C4904  | D3  | C8122 | C81 | CR104  | C73 | CR3308  | D45   | CR6203  | E26 | L104   | C73  | L2602 | B85 | Q802  | B58  | Q3306 | C46 | Q8202 | D88 |
| C120 | C77 | C511 | B71 | C1437 | A103 | C1707 | C109 | C205A | C36  | C2617 | B86  | C3326  | D48 | C4201 | B29 | C4906  | D2  | C8123 | C81 | CR105  | C63 | CR3401A | A45   | CR6204  | E27 | L105   | C61  | L2603 | C85 | Q1410 | D119 | Q3310 | A51 | Q8204 | B88 |
| C121 | D64 | C511 | C59 | C1440 | A113 | C1708 | D109 | C206A | C41  | C2618 | C9   | C3401A | A45 | C4202 | B29 | C5001  | C44 | C8124 | C81 | CR105  | C75 | CR3501  | E40   | CR6501  | B7  | L105   | C73  | L2604 | B42 | Q1411 | D38  | Q3311 | D46 | Q8205 | C88 |
| C121 | D76 | C601 | B66 | C1441 | A113 | C1709 | B44  | C207A | A44  | C2701 | C4   | C3502  | E41 | C4301 | E1  | C5002  | B27 | C8201 | D88 | CR106  | C75 | CR4001  | A31   | CR6502  | B7  | L106   | C62  | L2605 | B86 | Q1412 | C43  | Q3312 | D45 | Q8206 | B91 |
| C122 | D65 | C601 | B78 | C1442 | B113 | C1710 | B110 | C208A | C38  | C2702 | B11  | C3505  | E41 | C4302 | E5  | C5003  | C27 | C8202 | D88 | CR106  | D63 | CR4101  | D32   | CR6503  | B7  | L106   | C74  | L2606 | A86 | Q1413 | D38  | Q3501 | E42 | Q8207 | C93 |
| C122 | D77 | C602 | A66 | C1443 | B113 | C1711 | C109 | C2201 | B5   | C2703 | B10  | C3506  | E44 | C4303 | E5  | C5004  | A23 | C8203 | D88 | CR107  | C64 | CR4102  | A35   | CR6504  | C86 | L107   | C63  | L2607 | C9  | Q1414 | E120 | Q3502 | E41 | Q8208 | A93 |
| C124 | B60 | C602 | A78 | C1444 | A112 | C1712 | B110 | C2202 | A5   | C2704 | C13  | C3801  | E64 | C4304 | E5  | C5005  | A22 | C8205 | D89 | CR107  | C76 | CR4103  | D34</ |         |     |        |      |       |     |       |      |       |     |       |     |

SCHEMATIC COMPONENT LOCATION GUIDE continued

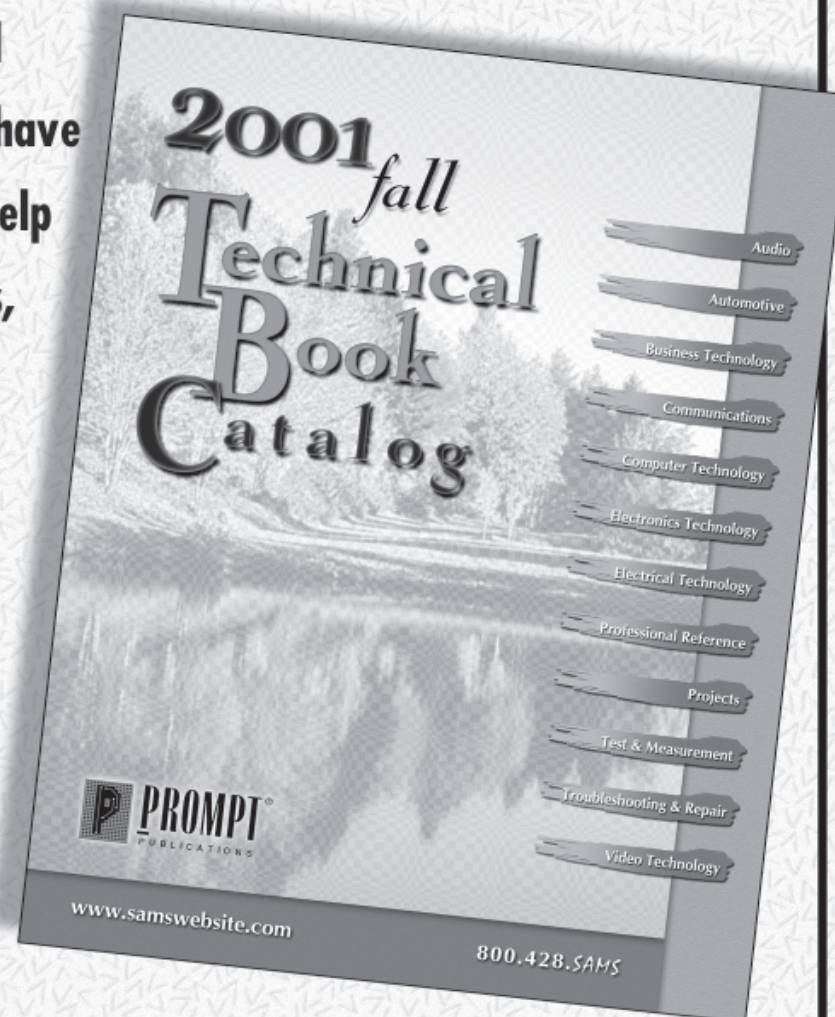
|      |     |      |     |       |      |       |      |       |      |       |      |       |      |       |     |        |     |        |     |       |     |        |     |       |     |       |      |       |     |       |     |        |      |       |     |
|------|-----|------|-----|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-----|--------|-----|--------|-----|-------|-----|--------|-----|-------|-----|-------|------|-------|-----|-------|-----|--------|------|-------|-----|
| R117 | C64 | R505 | D58 | R1411 | D103 | R1532 | D118 | R1755 | E112 | R2301 | C3   | R2559 | B98  | R2712 | B2  | R3120  | E50 | R3342  | B48 | R4104 | D32 | R4504  | E45 | R4901 | E2  | R5087 | B22  | R8105 | E82 | R8249 | A93 | SP1    | A124 | U8301 | E86 |
| R117 | C76 | R506 | C70 | R1412 | C103 | R1533 | D118 | R1757 | B108 | R2302 | A2   | R2560 | D40  | R2713 | B3  | R3121  | E47 | R3343  | C56 | R4105 | D32 | R4505  | E45 | R4903 | E2  | R5088 | B22  | R8106 | E82 | R8250 | C11 | SP2    | A124 | U8302 | D69 |
| R118 | D64 | R506 | D58 | R1413 | E103 | R1534 | D118 | R1758 | E109 | R2304 | C3   | R2561 | D98  | R2714 | C10 | R3122  | E47 | R3344  | E55 | R4106 | E34 | R4507  | D8  | R4904 | D2  | R5089 | B27  | R8107 | C40 | R8251 | E89 | SW801  | B59  | U8350 | D71 |
| R118 | D76 | R507 | D71 | R1414 | C43  | R1535 | D107 | R1759 | D111 | R2305 | C2   | R2562 | D98  | R2715 | C10 | R3123  | E47 | R3353  | A51 | R4107 | E34 | R4508  | D6  | R4905 | E2  | R5201 | E21  | R8108 | C82 | R8252 | E92 | SW1900 | A123 | U8350 | D72 |
| R119 | D63 | R507 | E59 | R1415 | E103 | R1536 | D107 | R1760 | E111 | R2307 | C2   | R2563 | E97  | R2716 | C10 | R3124  | E37 | R3354  | A51 | R4108 | E34 | R4509  | D6  | R4906 | D2  | R5202 | E21  | R8109 | A80 | R8253 | B92 | SW3410 | C46  | U8350 | D74 |
| R119 | D75 | R508 | D71 | R1416 | D38  | R1538 | C119 | R1761 | D111 | R2308 | C4   | R2564 | E97  | R2717 | B2  | R3125  | E37 | R3355  | A51 | R4109 | D34 | R4510  | D5  | R4907 | E2  | R5203 | E21  | R8110 | D83 | R8254 | D88 | SW3411 | B45  | U8350 | E76 |
| R120 | B60 | R508 | E59 | R1420 | A117 | R1539 | D107 | R1762 | B108 | R2309 | C1   | R2565 | D100 | R2718 | B3  | R3126  | C54 | R3356  | A52 | R4110 | D34 | R4511  | A35 | R4908 | D3  | R5204 | E21  | R8111 | D83 | R8256 | C89 | SW3420 | B46  | V101  | B28 |
| R120 | B72 | R509 | D71 | R1421 | A117 | R1540 | D107 | R1763 | C116 | R2310 | B4   | R2566 | D100 | R2751 | C14 | R3127  | D51 | R3357  | A52 | R4111 | D34 | R4512  | D5  | R4909 | E2  | R5205 | E22  | R8112 | E81 | R8257 | B90 | SW3421 | B46  | Y501  | C69 |
| R121 | B72 | R509 | E59 | R1422 | B103 | R1541 | D106 | R1764 | B118 | R2311 | B4   | R2567 | D97  | R2752 | C13 | R3128  | E51 | R3358  | B55 | R4112 | D34 | R4516  | D6  | R4910 | D2  | R5207 | E21  | R8113 | D82 | R8258 | D91 | SW3430 | B46  | Y501  | D57 |
| R121 | C60 | R510 | D59 | R1423 | E103 | R1542 | D106 | R1767 | C118 | R2312 | B5   | R2568 | D97  | R2753 | D4  | R3129  | E51 | R3359  | C54 | R4113 | D34 | R4518  | D6  | R4912 | E2  | R5208 | E22  | R8114 | C82 | R8262 | A91 | SW3431 | B46  | Y2801 | B11 |
| R122 | D63 | R510 | D71 | R1429 | E120 | R1543 | B119 | R1768 | D113 | R2313 | B4   | R2569 | D100 | R2754 | C12 | R3130  | E51 | R3360  | C53 | R4114 | D34 | R4519  | D6  | R5001 | A19 | R5210 | E22  | R8115 | E81 | R8301 | E77 | SW4401 | D11  | Y3101 | C50 |
| R122 | D75 | R511 | D71 | R1431 | E120 | R1550 | C104 | R1769 | D112 | R2314 | B1   | R2570 | D98  | R2755 | C12 | R3131  | E51 | R3361  | D53 | R4116 | E31 | R4591  | D3  | R5002 | A20 | R5211 | D22  | R8116 | E81 | R8302 | E75 | SW6201 | E26  | Y4190 | D3  |
| R123 | C64 | R511 | E59 | R1432 | E103 | R1551 | D104 | R1770 | C114 | R2315 | B2   | R2571 | D98  | R2756 | C12 | R3132  | E52 | R3362  | E52 | R4117 | E31 | R4609  | E43 | R5003 | A19 | R5213 | D23  | R8117 | E81 | R8303 | E74 | SW6202 | E26  | Y8101 | B81 |
| R123 | C76 | R512 | C71 | R1440 | A112 | R1552 | D106 | R1771 | C114 | R2316 | B2   | R2572 | C97  | R2801 | D94 | R3135  | C53 | R3364  | D52 | R4118 | E31 | R4610  | E44 | R5004 | B25 | R5214 | E23  | R8118 | E82 | R8304 | E70 | T801   | B59  | Y8201 | D90 |
| R124 | D64 | R512 | D59 | R1441 | A113 | R1553 | E106 | R1772 | C115 | R2317 | C4   | R2573 | C97  | R2802 | C11 | R3137  | D51 | R3365  | D53 | R4119 | E31 | R4700  | D16 | R5005 | C21 | R5215 | D24  | R8119 | E83 | R8305 | E71 | T4101  | A33  | Y8301 | E77 |
| R124 | D76 | R513 | B70 | R1442 | A113 | R1554 | E105 | R1773 | C115 | R2318 | C2   | R2574 | E96  | R2803 | C11 | R3138  | D52 | R3366  | E52 | R4120 | E31 | R4703  | E28 | R5006 | C23 | R5216 | D24  | R8120 | E83 | R8306 | E86 | T4102  | C31  |       |     |
| R126 | C62 | R513 | C58 | R1443 | A114 | R1555 | E105 | R1774 | D118 | R2319 | A68  | R2575 | E96  | R2804 | C10 | R3138A | E50 | R3367  | E52 | R4121 | A38 | R4712  | E8  | R5007 | B25 | R5217 | E24  | R8121 | D83 | R8307 | E70 | T4103  | D31  |       |     |
| R126 | C74 | R514 | B70 | R1444 | A113 | R1556 | E104 | R1775 | C114 | R2320 | C1   | R2576 | E96  | R2805 | C10 | R3140  | E38 | R3368  | A52 | R4122 | C39 | R4715  | E7  | R5008 | D20 | R5218 | E22  | R8122 | D83 | R8308 | E78 | T4301  | E6   |       |     |
| R203 | C75 | R514 | C58 | R1445 | B113 | R1557 | E104 | R1776 | C114 | R2321 | B2   | R2577 | E96  | R2806 | C94 | R3141  | E38 | R3369  | D47 | R4123 | C41 | R4716  | E7  | R5009 | C23 | R5219 | E22  | R8123 | A83 | R8309 | E89 | T4401  | C42  |       |     |
| R203 | D63 | R515 | C71 | R1446 | A112 | R1558 | C105 | R1777 | C115 | R2501 | C94  | R2578 | E97  | R2807 | C94 | R3143  | D52 | R3370  | D47 | R4124 | B52 | R4717  | E9  | R5010 | A25 | R5220 | E22  | R8124 | A83 | R8310 | E86 | T4401  | D14  |       |     |
| R204 | C64 | R515 | D59 | R1447 | A112 | R1559 | C105 | R1778 | C113 | R2502 | B94  | R2579 | E98  | R2808 | C95 | R3144  | D51 | R3371  | D45 | R4126 | B40 | R4718  | E8  | R5011 | C20 | R5221 | E23  | R8125 | A83 | R8315 | E69 | T4601  | E35  |       |     |
| R204 | C76 | R516 | C70 | R1448 | B114 | R1601 | D102 | R1779 | D115 | R2503 | B96  | R2580 | A97  | R2809 | D94 | R3145  | E51 | R3372  | D45 | R4127 | B40 | R4719  | E9  | R5012 | B23 | R5222 | E23  | R8126 | A83 | R8316 | D69 | T4701  | E13  |       |     |
| R301 | B63 | R516 | D58 | R1451 | E118 | R1602 | C102 | R1780 | D115 | R2504 | A96  | R2581 | A97  | R2810 | C11 | R3146  | C51 | R3373  | D45 | R4128 | B40 | R4720  | E94 | R5013 | A24 | R5224 | D23  | R8127 | A84 | R8317 | D69 | U501   | B69  |       |     |
| R301 | B75 | R517 | B71 | R1452 | E118 | R1603 | C102 | R1781 | B114 | R2505 | A96  | R2582 | E98  | R2811 | C13 | R3147  | C53 | R3374  | D46 | R4129 | A32 | R4720A | E9  | R5014 | B24 | R5225 | E23  | R8128 | A84 | R8318 | E70 | U501   | C57  |       |     |
| R302 | C63 | R517 | C59 | R1453 | D118 | R1605 | D101 | R1782 | B114 | R2506 | B96  | R2583 | E97  | R2812 | C93 | R3148  | D48 | R3375  | D46 | R4130 | D39 | R4721  | E93 | R5015 | C19 | R5611 | C85  | R8129 | A81 | R8319 | D70 | U701   | A77  |       |     |
| R302 | C75 | R518 | C71 | R1454 | E118 | R1606 | C101 | R1783 | B114 | R2507 | C97  | R2584 | B94  | R2813 | C94 | R3149  | D48 | R3376  | D46 | R4131 | A43 | R4721A | E10 | R5016 | C19 | R5613 | C85  | R8130 | D83 | R8320 | E69 | U701   | B65  |       |     |
| R303 | B60 | R518 | D59 | R1455 | E118 | R1607 | C101 | R1784 | B114 | R2508 | C97  | R2585 | C94  | R2814 | C94 | R3150  | D49 | R3377  | D47 | R4132 | C37 | R4722  | E94 | R5017 | B22 | R5636 | B6   | R8131 | A81 | R8321 | E87 | U1402  | A104 |       |     |
| R303 | B72 | R601 | A78 | R1456 | E119 | R1608 | C101 | R1785 | C113 | R2509 | C100 | R2586 | B94  | R2815 | C95 | R3151  | D49 | R3401A | A45 | R4133 | D34 | R4722A | E10 | R5018 | B22 | R6204 | E26  | R8132 | D81 | R8323 | E70 | U1403  | A113 |       |     |
| R304 | B60 | R601 | B66 | R1457 | E119 | R1609 | A5   | R1786 | C113 | R2510 | C99  | R2587 | A94  | R2816 | C95 | R3201  | B47 | R3402A | A46 | R4134 | B52 | R4723  | E94 | R5019 | A19 | R6205 | E26  | R8133 | C40 | R8324 | E86 | U1404  | E118 |       |     |
| R304 | B72 | R602 | B67 | R1459 | D119 | R1610 | A101 | R1787 | E112 | R2511 | B95  | R2588 | A94  | R2817 | C95 | R3202  | C47 | R3403A | A45 | R4137 | A39 | R4723A | E10 | R5020 | A22 | R6206 | D26  | R8134 | A80 | R8325 | E86 | U1405  | D122 |       |     |
| R305 | B61 | R602 | B79 | R1460 | D119 | R1611 | A102 | R1788 | E112 | R2512 | C96  | R2589 | B97  | R2818 | C13 | R3203  | C47 | R3501  | E40 | R4138 | A40 | R4724  | E94 | R5021 | A22 | R6207 | E25  | R8135 | A80 | R8326 | E70 | U1406  | D120 |       |     |
| R305 | B73 | R603 | B67 | R1461 | D120 | R1612 | A102 | R1789 | C114 | R2513 | B99  | R2590 | B97  | R2901 | C15 | R3204  | B47 | R3502  | E40 | R4140 | A42 | R4724A | E11 | R5022 | A20 | R6208 | E25  | R8136 | D81 | R8327 | E71 | U1503  | A118 |       |     |
| R306 | B62 | R603 | B79 | R1462 | D120 | R1613 | B102 | R1790 | C113 | R2514 | B99  | R2591 | B98  | R2902 | A14 | R3205  | B47 | R3503  | E42 | R4141 | B32 | R4725  | E94 | R5023 | A23 | R6209 | D27  | R8137 | D82 | R8328 | E70 | U1504  | C105 |       |     |
| R306 | B74 | R604 | A67 | R1463 | D120 | R1614 | B101 | R1791 | C113 | R2515 | A98  | R2592 | B98  | R2904 | A15 | R3206  | B47 | R3504  | E42 | R4145 | C40 | R4725A | E11 | R5024 | A19 | R6301 | D107 | R8138 | A80 | R8329 | D87 | U1505  | C106 |       |     |
| R307 | B62 | R604 | A79 | R1464 | D38  | R1615 | B101 | R1792 | E113 | R2516 | A98  | R2593 | E100 | R2905 | A15 | R3207  | B47 | R3505  | E42 | R4150 | D33 | R4726  | E94 | R5025 | B25 | R6302 | D107 | R8139 | C81 | R8331 | E69 | U1505  | D106 |       |     |
| R307 | B74 | R605 | A67 | R1465 | D38  | R1616 | A101 | R1875 | C120 | R2517 | A98  | R2595 | D96  | R2906 | A16 | R3208  | A47 | R3506  | E42 | R4190 | A43 | R4726A | E11 | R5026 | C20 | R6303 | D102 | R8140 | D40 | R8332 | E69 | U1600  | A102 |       |     |
| R308 | B62 | R605 | A79 | R1466 | E38  | R1617 | A101 | R1902 | C123 | R2518 | B100 | R2596 | E100 | R2907 | A15 | R3210  | B47 | R3507  | E40 | R4192 | D3  | R4727  | E95 | R5027 | C20 | R6304 | A6   | R8201 | D87 | R8350 | E75 | U1700  | B114 |       |     |
| R308 | B74 | R606 | B68 | R1467 | C43  | R1618 | D102 | R1904 | D51  | R2519 | C95  | R2597 | C96  | R2908 | A16 | R3211  | B47 | R3508  | A50 | R4193 | D2  | R4727A | E12 | R5029 | C23 | R6309 | A6   | R8202 | E88 | R8351 | E75 | U1700  | C114 |       |     |
| R309 | B62 | R606 | B80 | R1468 | D38  | R1701 | B111 | R1909 | C124 | R2520 | C98  | R2598 | C96  | R2909 | C14 | R3212  | B46 | R3509  | E42 | R4195 | B30 | R4728  | E95 | R5031 | A24 | R6501 | A6   | R8203 | E88 | R8352 | E74 | U1700  | C115 |       |     |
| R309 | B74 | R609 | B67 | R1469 | D38  | R1705 | B110 | R1910 | C124 | R2521 | C98  | R2599 | B100 | R2911 | C15 | R3213  | A46 | R3801  | E48 | R4196 | D32 | R4729  | E95 | R5032 | C20 | R6502 | A7   | R8204 | E88 | R8353 | D73 | U1700  | D114 |       |     |
| R310 | B63 | R609 | B79 | R1470 | E119 | R1706 | B110 | R1911 | D124 | R2522 | C98  | R2601 | B9   | R2912 | C15 | R3301  | A48 | R3802  | E63 | R4197 | D33 | R4729A | E12 | R5033 | B22 | R6503 | B7   | R8205 | B34 | R8354 | E72 | U1702  | C110 |       |     |
| R310 | B75 | R610 | A79 | R1471 | D121 | R1708 | C109 | R1912 | D124 | R2523 | D96  | R2602 | B9   | R2913 | C15 | R3302  | A11 | R3803  | E48 | R4198 | D33 | R4730  | E95 | R5034 | C44 | R6504 | A6   | R8206 | C89 | R8355 | D72 | U1710  | E113 |       |     |
| R311 | B62 | R610 | B67 | R1472 | E123 | R1709 | C109 | R1913 | C122 | R2524 | D96  | R2603 | C9   | R2914 | C15 | R3303  | A12 | R3804  | D61 | R4199 | C40 | R473   |     |       |     |       |      |       |     |       |     |        |      |       |     |



# PROMPT® REPAIRS

Reference books that make repairs easier

PROMPT® Publications and Sams Technical Publishing have a host of books that will help you in repairing TVs, VCRs, Projection TVs, and much more. Visit our website [www.samswebsite.com](http://www.samswebsite.com) for a complete listing of books, or call, **1.800.428.SAMS** to request a Technical Book Catalog.



5436 W. 78th Street / Indianapolis, IN 46268  
1.800.428.SAMS FAX 800.552.3910  
[www.samswebsite.com](http://www.samswebsite.com)



## Important Parts Information

- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

## Obtaining Parts

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

**800-428-7267**

Or consult the Sams *Annual Index* for the address of the original equipment manufacturer.

## Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors. Consult the Sams *Annual Index* for their current address.

■ NTE Electronics, Inc. (NTE)

■ Sencore, Inc.



PARTS LIST

| Item No.       | Type No. | Mfr. Part No. | NTE Part No. | Item No.          | Type No. | Mfr. Part No. | NTE Part No. | Item No.      | Type No. | Mfr. Part No. | NTE Part No. |
|----------------|----------|---------------|--------------|-------------------|----------|---------------|--------------|---------------|----------|---------------|--------------|
| CR101          | -        | 215493        | -            | CR4601 Thru       | -        |               |              | Q2902         | -        | 215495        | -            |
| CR102          | -        | 211863        | -            | CR4604            | -        | 147015        | NTE125       | Q2903, 04     | -        | 215496        | -            |
| CR103          | -        | 215493        | -            | CR4605, 11        | -        | 164717        | NTE519       | Q2905         | -        | 215495        | -            |
| CR104          | -        | 227051        | -            | CR4612            | -        | 215488        | NTE136A      | Q2906, 07     | -        | 215496        | -            |
| CR105          | -        | 211863        | -            | CR4701            | -        | 164589        | NTE580       | Q2908         | -        | 215495        | -            |
| CR106, 07      | -        | 215493        | -            | CR4703            | -        | 164874        | NTE177       | Q2909, 10     | -        | 215496        | -            |
| CR108          | -        | 211863        | -            | CR4704            | -        | 223659        | -            | Q2912, 13, 14 | -        | 215496        | -            |
| CR109 Thru     | -        |               |              | # CR4704A         | -        | 227379        | -            | Q3101         | -        | 215496        | -            |
| CR113          | -        | 215493        | -            | CR4705            | -        | 214647        | -            | Q3102, 03     | -        | 215495        | -            |
| CR301          | -        | 215493        | -            | CR4720            | -        | 176296        | NTE552       | Q3104, 05     | -        | 215496        | -            |
| CR303, 04, 05  | -        | 215492        | -            | CR4720A           | -        | 164874        | NTE177       | Q3106 Thru    | -        |               |              |
| CR306          | -        | 215493        | -            | CR4721            | -        | 164717        | NTE519       | Q3109         | -        | 215495        | -            |
| CR307          | -        | 227082        | -            | CR4721A           | -        | 164874        | NTE177       | Q3200         | -        | 215495        | -            |
| CR501          | -        | 215493        | -            | CR4722, 23        | -        | 164717        | NTE519       | Q3201         | -        | 215496        | -            |
| CR601, 02      | -        | 227051        | -            | CR4726            | -        | 215487        | -            | Q3301 Thru    | -        |               |              |
| CR701          | -        | 215492        | -            | CR4727            | -        | 164874        | NTE177       | Q3304         | -        | 215496        | -            |
| CR702          | -        | 211863        | -            | CR4801            | -        | 164717        | NTE519       | Q3306         | -        | 215496        | -            |
| CR703          | -        | 215493        | -            | CR4802            | -        | -             | -            | Q3310, 11     | -        | 215495        | -            |
| CR1412 Thru    | -        |               |              | CR4803, 04        | -        | 164717        | NTE519       | Q3312         | -        | 215496        | -            |
| CR1418         | -        | 147015        | NTE125       | # CR4901          | -        | 157301        | NTE177       | Q3501         | -        | 215496        | -            |
| CR1419, 20     | -        | 223659        | -            | # CR4902          | -        | 159429        | NTE5019T1    | Q3502, 03     | -        | 215495        | -            |
| CR1601         | -        | 164717        | NTE519       | CR4903            | -        | 228943        | -            | Q4101         | -        | 214640        | -            |
| CR1850         | -        | 227362        | -            | CR5001, 02        | -        | 140971        | NTE558       | Q4102         | -        | 177789        | NTE32        |
| CR1900, 01     | -        | 223659        | -            | CR5003            | -        | 164717        | NTE519       | Q4103         | -        | 223704        | -            |
| CR1903         | -        | 227355        | -            | CR5004, 05, 06    | -        | 139706        | NTE177       | Q4104         | -        | 226975        | -            |
| CR1906 Thru    | -        |               |              | CR5007, 08, 09    | -        | 215487        | -            | Q4105         | -        | 157627        | NTE54        |
| CR1910         | -        | 223659        | -            | CR6201, 03        | -        | 176296        | NTE552       | Q4106, 07     | -        | 226975        | -            |
| CR2201         | -        | 227051        | -            | CR6204            | -        | 223694        | -            | Q4108         | -        | 215496        | -            |
| CR2501         | -        | 164717        | NTE519       | CR6501 Thru       | -        |               |              | Q4109         | -        | 226971        | -            |
| CR2751         | -        | 164717        | NTE519       | CR6504            | -        | 215487        | -            | Q4110         | -        | 226972        | -            |
| CR2752         | -        | 229644        | -            | CR6505            | -        | 227362        | -            | Q4201         | -        | 223704        | -            |
| CR3101         | -        | 164717        | NTE519       | CR8203, 04, 05    | -        | 164874        | NTE177       | Q4301         | -        | 223704        | -            |
| CR3102, 03     | -        | 223659        | -            | CR8301, 02        | -        | 164874        | NTE177       | Q4302         | -        | 190482        | NTE287       |
| CR3104         | -        | 226783        | -            | Q101              | -        | 226973        | -            | Q4401         | -        | 227010        | -            |
| CR3105, 06, 07 | -        | 215493        | -            | Q301              | -        | 227008        | -            | Q4402         | -        | 215495        | -            |
| CR3108         | -        | 198602        | -            | Q501              | -        | 219028        | -            | Q4501         | -        | 215495        | -            |
| CR3109, 10     | -        | 218987        | -            | Q502              | -        | 215495        | -            | Q4502         | -        | 177788        | NTE31        |
| CR3111         | -        | 198602        | -            | Q503              | -        | 215496        | -            | Q4603         | -        | 223704        | -            |
| CR3301, 02, 06 | -        | 223659        | -            | Q504              | -        | 215495        | -            | Q4701         | -        | 215496        | -            |
| CR3307         | -        | 226782        | -            | Q505 Thru         | -        |               |              | Q4702, 03     | -        | 215495        | -            |
| CR3308         | -        | 223659        | -            | Q508              | -        | 219028        | -            | Q4704         | -        | 226453        | NTE399       |
| CR3400, 01     | -        | 215488        | NTE136A      | Q601              | -        | 226981        | -            | Q4705, 06     | -        | 215495        | -            |
| CR3401A        | -        | 198602        | -            | Q1410             | -        | 215495        | -            | Q4707, 20     | -        | 226453        | NTE399       |
| CR3501         | -        | 223659        | -            | Q1411, 12         | -        | 215496        | -            | Q4721, 22     | -        | 215496        | -            |
| # CR4001       | -        | 214649        | NTE5331      | Q1413 Thru        | -        |               |              | Q4723         | -        | 215495        | -            |
| CR4101         | -        | 223338        | -            | Q1418             | -        | 215495        | -            | Q4724         | -        | 226453        | NTE399       |
| CR4102         | -        | 227066        | -            | Q1419             | -        | 215496        | -            | Q4801         | -        | 214641        | -            |
| CR4103, 05, 06 | -        | 164717        | NTE519       | Q1500             | -        | 177788        | NTE31        | Q4802         | -        | 145395        | NTE123AP     |
| CR4107, 08     | -        | 164590        | NTE580       | Q1703 Thru        | -        |               |              | Q4803         | -        | 223704        | -            |
| CR4109         | -        | 223339        | -            | Q1706             | -        | 227814        | -            | # Q4902       | -        | 147665        | NTE159       |
| CR4110         | -        | 164589        | NTE580       | Q1907, 10, 11, 12 | -        | 215495        | -            | Q5001, 02, 03 | -        | 208434        | NTE376%      |
| CR4111         | -        | 164590        | NTE580       | Q2301             | -        | 215495        | -            | Q5004         | -        | 226453        | NTE399       |
| CR4112         | -        | 218514        | -            | Q2302             | -        | 215496        | -            | Q5005         | -        | 227406        | NTE288       |
| CR4113         | -        | 226504        | -            | Q2501             | -        | 215496        | -            | Q5006         | -        | 226453        | NTE399       |
| CR4114         | -        | 164717        | NTE519       | Q2502, 03, 04     | -        | 215495        | -            | Q5007         | -        | 227406        | NTE288       |
| CR4115         | -        | 164590        | NTE580       | Q2505             | -        | 215496        | -            | Q5008         | -        | 226453        | NTE399       |
| CR4116         | -        | 214653        | -            | Q2506             | -        | 215495        | -            | Q5009         | -        | 227406        | NTE288       |
| CR4117         | -        | 226782        | -            | Q2507             | -        | 215496        | -            | Q5013, 14, 15 | -        | 215496        | -            |
| CR4118, 19     | -        | 176296        | NTE552       | Q2508, 09, 10     | -        | 215495        | -            | Q5016, 18     | -        | 215495        | -            |
| CR4120         | -        | 217306        | -            | Q2511             | -        | 215496        | -            | Q5021, 24     | -        | 215495        | -            |
| CR4121, 26     | -        | 164717        | NTE519       | Q2512, 13         | -        | 215495        | -            | Q5028, 29, 30 | -        | 214644        | -            |
| CR4128         | -        | 164590        | NTE580       | Q2514             | -        | 215496        | -            | Q5201, 02     | -        | 215495        | -            |
| CR4129, 30     | -        | 147015        | NTE125       | Q2515             | -        | 215495        | -            | Q5204         | -        | 177788        | NTE31        |
| CR4131         | -        | 223651        | -            | Q2516             | -        | 215496        | -            | Q5205         | -        | 177789        | NTE32        |
| CR4132         | -        | 176296        | NTE552       | Q2517             | -        | 215495        | -            | Q5206         | -        | 227405        | -            |
| CR4133         | -        | 164717        | NTE519       | Q2518             | -        | 215496        | -            | Q5207         | -        | 227404        | -            |
| CR4201         | -        | 164717        | NTE519       | Q2601             | -        | 215495        | -            | Q6202         | -        | 223704        | -            |
| CR4303, 51     | -        | 164717        | NTE519       | Q2602             | -        | 215496        | -            | Q6502, 03     | -        | 215496        | -            |
| CR4401         | -        | 227291        | -            | Q2603             | -        | 215495        | -            | Q6504         | -        | 215495        | -            |
| CR4402         | -        | 164589        | NTE580       | Q2604, 05         | -        | 215496        | -            | Q8101, 02     | -        | 215496        | -            |
| # CR4403, 04   | -        | 176296        | NTE552       | Q2701             | -        | 215496        | -            | Q8103 Thru    | -        |               |              |
| CR4405, 06     | -        | 176296        | NTE552       | Q2801             | -        | 215495        | -            | Q8106         | -        | 215495        | -            |
| CR4408         | -        | 140971        | NTE558       | Q2802             | -        | 215496        | -            | Q8201, 02, 04 | -        | 215495        | -            |
| CR4501         | -        | 147015        | NTE125       | Q2803             | -        | 215495        | -            | Q8205 Thru    | -        |               |              |
| CR4502         | -        | 164717        | NTE519       | Q2901             | -        | 215496        | -            | Q8209         | -        | 215496        | -            |

PROSCAN

MODEL PS35160FM1 (CHASSIS CTC179DJ)

PARTS LIST continued

| Item No.      | Type No. | Mfr. Part No. | NTE Part No. |
|---------------|----------|---------------|--------------|
| Q8302         | -        | 215496        | -            |
| Q8350, 51     | -        | 215495        | -            |
| Q8401         | -        | 215495        | -            |
| U501          | -        | 215533        | -            |
| U701          | -        | 227007        | -            |
| U1402         | -        | 227345        | -            |
| U1403, 04, 05 | -        | 223806        | -            |
| U1406         | -        | 227357        | -            |
| U1503, 04     | -        | 227344        | -            |
| U1505         | -        | 227342        | -            |
| U1600         | -        | 225700        | -            |
| U1700         | -        | 207827        | NTE710       |
| U1702         | -        | 227815        | -            |
| U1710         | -        | 223806        | -            |
| U1910         | -        | 227341        | NTE943M      |
| U1913         | -        | 210911        | -            |
| # U2001       | -        | 226967        | -            |
| U2501         | -        | 226968        | -            |
| U2502         | -        | 226969        | -            |
| U2601         | -        | 182321        | -            |
| U2602, 03     | -        | 227354        | -            |
| U3101 (1)     | -        | -             | -            |
| U3102 (1)     | -        | -             | -            |
| U3103         | -        | 226976        | -            |
| U4101         | -        | 226974        | -            |
| U4102         | -        | 227012        | -            |
| U4501         | -        | 215531        | NTE1788      |
| U4601         | -        | 162394        | NTE966       |
| U4701         | -        | 223807        | -            |
| U4801         | -        | 200420        | NTE922M      |
| U5001         | -        | 227396        | -            |
| U6501         | -        | 227343        | -            |
| U8101         | -        | 227416        | -            |
| U8201         | -        | 227426        | -            |
| U8202         | -        | 204280        | -            |
| U8203         | -        | 227425        | -            |
| U8204         | -        | 215528        | -            |
| U8301         | -        | 227415        | -            |
| U8302         | -        | 227843        | -            |
| U8350         | -        | 215534        | -            |
| MAINTUNER     |          |               |              |
| CR101         | -        | 215493        | -            |
| CR102         | -        | 211863        | -            |
| CR103         | -        | 215493        | -            |
| CR104         | -        | 227051        | -            |
| CR105         | -        | 211863        | -            |
| CR106, 07     | -        | 215493        | -            |
| CR108         | -        | 211863        | -            |
| CR109 Thru    |          |               |              |
| CR113         | -        | 215493        | -            |
| CR301         | -        | 215493        | -            |
| CR303, 04, 05 | -        | 215492        | -            |
| CR306         | -        | 215493        | -            |
| CR307         | -        | 227082        | -            |
| CR501         | -        | 215493        | -            |
| CR601, 02     | -        | 227051        | -            |
| CR701         | -        | 215492        | -            |
| CR702         | -        | 211863        | -            |
| CR703         | -        | 215493        | -            |
| CR803         | -        | 215493        | -            |
| Q101          | -        | 226973        | -            |
| Q301          | -        | 227008        | -            |
| Q501          | -        | 219028        | -            |
| Q502          | -        | 215495        | -            |
| Q503          | -        | 215496        | -            |
| Q504          | -        | 215495        | -            |
| Q505 Thru     |          |               |              |
| Q508          | -        | 219028        | -            |
| Q601          | -        | 226981        | -            |
| Q802          | -        | 219028        | -            |
| Q3801, 02     | -        | 215495        | -            |
| U501          | -        | 215533        | -            |
| U701          | -        | 227007        | -            |
| U3801         | -        | 215534        | -            |

| Item No.  | Function/Rating     | Mfr. Part No. | Notes |
|-----------|---------------------|---------------|-------|
| C104      | 330pF 5% 50V NPO    | 205227        | -     |
| C110      | 39pF 5% 50V NPO     | 181090        | -     |
| C115      | 150pF 5% 50V NPO    | 214032        | -     |
| C117      | 1.5pF ±.1pF 50V NPO | 223146        | -     |
| C118      | 180pF 5% 50V NPO    | 211039        | -     |
| # C122    | .001 10% 50V        | 192060        | -     |
| C124      | 470pF 5% 50V NPO    | 214732        | -     |
| C125      | 100pF 2% 50V NPO    | 227089        | -     |
| C302      | 10pF 2% 50V NPO     | 214740        | -     |
| C305      | 27pF 5% 50V N750    | 214760        | -     |
| C306      | 12pF 5% 50V NPO     | 214027        | -     |
| C307      | 27pF 5% 50V NPO     | 197604        | -     |
| C308      | 120pF 5% 50V NPO    | 194902        | -     |
| C309      | 27pF 5% 50V NPO     | 197604        | -     |
| C310      | .75pF ±.1pF 50V NPO | 227269        | -     |
| C311      | 27pF 5% 50V N750    | 214760        | -     |
| C312      | 18pF 2% 50V N220    | 227077        | -     |
| C313, 14  | 470pF 5% 50V NPO    | 214732        | -     |
| C401      | 27pF 5% 50V NPO     | 197604        | -     |
| C407, 11  | 33pF 5% 50V NPO     | 194911        | -     |
| C424      | 100pF 5% 50V NPO    | 193340        | -     |
| C502, 03  | 10pF 5% 50V NPO     | 214740        | -     |
| C505      | 39pF 5% 50V NPO     | 202905        | -     |
| C602      | 100pF 5% 50V NPO    | 193340        | -     |
| C605      | 330pF 5% 50V NPO    | 205227        | -     |
| C607      | 22pF 5% 50V NPO     | 174406        | -     |
| C701      | 1pF ±.1pF 50V NPO   | 227084        | -     |
| C702      | 2pF ±.1pF 50V NPO   | 227074        | -     |
| C703      | 2pF ±.1pF 50V N750  | 226965        | -     |
| C704      | 1pF ±.1pF 50V NPO   | 227084        | -     |
| C705      | 27pF 5% 50V N750    | 214760        | -     |
| C707      | 1pF ±.1pF 50V NPO   | 227084        | -     |
| C708      | 3pF ±.1pF 50V NPO   | 227088        | -     |
| C709      | 68pF 10% 50V NPO    | 193339        | -     |
| C710      | 3pF ±.1pF 50V NPO   | 227088        | -     |
| C711      | 1pF ±.1pF 50V NPO   | 227084        | -     |
| C712      | 3pF ±.1pF 50V NPO   | 227088        | -     |
| C1428, 29 | 10pF 5% 50V NPO     | 214740        | -     |
| C1445, 46 | 1µF 20% 100V NP     | 218513        | -     |
| C1529, 38 | 10pF 5% 50V NPO     | 214740        | -     |
| C1558, 59 | 10pF 5% 50V NPO     | 214740        | -     |
| C1560, 61 | 10µF 20% 16V NP     | 227017        | -     |
| C1562, 63 | 4.7µF 20% 35V NP    | 224269        | -     |
| C1601, 08 | 4.7µF 20% 35V NP    | 224269        | -     |
| C1610, 14 | 4.7µF 20% 35V NP    | 224269        | -     |
| C1621, 22 | 10pF 5% 50V NPO     | 214740        | -     |
| C1713     | 180pF 5% 50V NPO    | 190543        | -     |
| C1724     | 220pF 5% 50V NPO    | 205551        | -     |
| C1736, 37 | 47pF 5% 50V NPO     | 210689        | -     |
| C1773, 77 | 10µF 20% 16V NP     | 227017        | -     |
| C1965, 66 | 47µF 20% 10V NP     | 227350        | -     |
| C2306     | .01 10% 50V         | 215555        | -     |
|           | 150pF 5% 50V NPO    | 181091        | -     |
|           | 470pF 5% 50V NPO    | 214732        | -     |
| C2310     | .01 5% 50V          | 215555        | -     |
| C2314     | 150pF 5% 50V NPO    | 181091        | -     |
| C2503     | 220pF 5% 50V NPO    | 205551        | -     |
| C2506     | 18pF 2% 50V NPO     | 227075        | -     |
| C2507     | 6pF ±.25pF 50V NPO  | 227250        | -     |
| C2516     | 27pF 5% 50V NPO     | 197604        | -     |
| C2519, 20 | 10pF 5% 50V NPO     | 214740        | -     |
| C2522     | 220pF 5% 50V NPO    | 205551        | -     |
| C2528     | 10µF 20% 16V NP     | 227017        | -     |
| C2530     | 330pF 5% 50V NPO    | 205227        | -     |
| C2535, 36 | 10pF 5% 50V NPO     | 214740        | -     |
| C2539     | 12pF 5% 50V NPO     | 214027        | -     |
| C2541     | 300pF 5% 50V NPO    | 220154        | -     |
| C2601     | 82pF 5% 50V NPO     | 192049        | -     |
| C2602     | 43pF 5% 50V NPO     | 214029        | -     |
| C2604     | 33pF 5% 50V NPO     | 194911        | -     |
| C2614     | 200pF 5% 50V NPO    | 218986        | -     |
| C2615     | 22pF 5% 50V NPO     | 194903        | -     |
| C2616     | 8.2pF 2% 50V NPO    | 227360        | -     |
| C2617     | 36pF 5% 50V NPO     | 194911        | -     |
| C2618     | 5.6pF .25pF NPO     | 227352        | -     |

| Item No.      | Function/Rating    | Mfr. Part No. | Notes |
|---------------|--------------------|---------------|-------|
| C2714         | 56pF 5% 50V NPO    | 190542        | -     |
| C2715         | .0015 10% 50V      | 197609        | -     |
|               | 100pF 5% 50V NPO   | 193340        | -     |
| C2716, 17     | 10pF 5% 50V NPO    | 214740        | -     |
| C2801         | 15pF 5% 50V NPO    | 202907        | -     |
| C2804         | 18pF 2% 50V NPO    | 227075        | -     |
| C2809         | 680pF 5% 50V NPO   | 220344        | -     |
| C2901         | 18pF 2% 50V NPO    | 227075        | -     |
| C2902         | 5pF ±.5pF 50V NPO  | 193917        | -     |
| C2903         | 18pF 2% 50V NPO    | 227075        | -     |
| C2904         | 5pF ±.5pF 50V NPO  | 193917        | -     |
| C2905         | 18pF 5% 50V NPO    | 174405        | -     |
| C2906         | 5pF ±.5pF 50V NPO  | 193917        | -     |
| C3101, 02, 03 | 22pF 5% 50V NPO    | 194903        | -     |
| C3107, 08     | 33pF 5% 50V NPO    | 194911        | -     |
| C3114         | 22pF 5% 50V NPO    | 194903        | -     |
| C3119         | 100pF 2% 50V NPO   | 227089        | -     |
| C3301, 03, 05 | 7pF ±.5pF 50V NPO  | 192045        | -     |
| C3307         | 15pF 5% 50V NPO    | 202907        | -     |
| C3311         | 100pF 2% 50V NPO   | 227089        | -     |
| C3323 Thru    |                    |               |       |
| C3326         | 10pF 5% 50V NPO    | 214740        | -     |
| C3400         | 10pF 5% 50V NPO    | 214740        | -     |
| C3506         | 220pF 5% 50V NPO   | 205551        | -     |
| # C4001       | .22 20% 250V       | 214067        | -     |
|               | .1 20% 125V        | 229322        | -     |
| # C4002       | 470pF 10% 120V     | 250102        | -     |
| C4003, 04     | 680pF 20% 1kV      | 190538        | -     |
| # C4006       | 820µF 10% 200V     | 190561        | -     |
| # C4007       | .005 20% 120V      | 195697        | -     |
| C4008, 09     | 680pF 10% 1kV      | 190538        | -     |
| # C4011       | .22 20% 250VAC     | 214067        | -     |
|               | .1 20% 125VAC      | 229322        | -     |
| C4110, 13, 18 | 470pF 10% 500V NPO | 227050        | -     |
| C4123         | 220pF 5% 50V NPO   | 205551        | -     |
| # C4126       | 470pF 10% 500V     | 102230        | -     |
| # C4127       | .0082 5% 600V      | 214070        | -     |
| C4128, 33     | 470pF 10% 500V NPO | 227050        | -     |
| C4142, 46     | 470pF 10% 500V NPO | 227050        | -     |
| # C4147       | 470pF 10% 500V     | 102230        | -     |
| C4199         | 470pF 10% 500V NPO | 227050        | -     |
| C4301         | 10pF 5% 50V NPO    | 174402        | -     |
| C4306         | 470pF 10% 500V NPO | 227050        | -     |
| C4307         | 100pF 5% 50V NPO   | 193340        | -     |
| C4310         | 470pF 5% 50V NPO   | 214732        | -     |
| C4352         | 47pF 5% 50V NPO    | 210689        | -     |
| # C4402       | 470pF 5% 2kV       | 227068        | -     |
| # C4403       | .0186 1.6kV        | 227021        | -     |
| # C4405       | .056 5% 400V       | 200149        | -     |
| # C4407       | .067 5% 250V       | 227315        | -     |
| C4408         | 10µF 50V NP        | 227053        | -     |
| # C4411, 12   | .056 10% 250V      | 146158        | -     |
| # C4415       | 680pF 5% 2kV       | 227069        | -     |
| # C4416       | 470pF 10% 500V     | 102230        | -     |
| # C4722A, 27  | .0028 1.6kV        | 227378        | -     |
| C4730         | 180pF 5% 2kV       | 227375        | -     |
| # C4759       | .0022 20% 2kV      | 227078        | -     |
| C4808         | 470pF 5% 50V NPO   | 214732        | -     |
| C4811         | 100pF 2% 50V NPO   | 227089        | -     |
| C4812         | 100pF 2% 50V NPO   | 227089        | -     |
|               | 220pF 2% 50V NPO   | 205551        | -     |
| C5003         | .0033 10% 3kV      | 226300        | -     |
| C5011, 12, 13 | 68pF 5% 50V NPO    | 145676        | -     |
| C5015, 17, 19 | 150pF 5% 50V NPO   | 214032        | -     |
| C5021, 22, 23 | 56pF 5% 50V NPO    | 214741        | -     |
| C5204, 06     | 330pF 10% 50V NPO  | 195922        | -     |
| C5208         | 100pF 5% 500V NPO  | 227407        | -     |
| C6505         | 39pF 5% 50V NPO    | 202905        | -     |
| C6519, 20     | 10pF 5% 50V NPO    | 214740        | -     |
| C6522         | 82pF 5% 50V NPO    | 192049        | -     |
| C8112         | 220pF 5% 50V NPO   | 205551        | -     |
| C8115         | 1µF 20% 100V NP    | 218513        | -     |
| C8201         | 10pF 5% 50V NPO    | 174402        | -     |
| C8202         | 10pF 5% 50V NPO    | 214740        | -     |
| C8203         | 10pF 5% 50V NPO    | 174402        | -     |

PARTS LIST continued

| Item No.      | Function/Rating  | Mfr. Part No. | Notes                  | Item No.        | Function/Rating      | Mfr. Part No. | Notes         | Item No.        | Function/Rating | Mfr. Part No. | Notes        |
|---------------|------------------|---------------|------------------------|-----------------|----------------------|---------------|---------------|-----------------|-----------------|---------------|--------------|
| C8206         | 100pF 5% 50V NPO | 193340        | -                      | L305            | -                    | 226984        | -             | R509            | 1M 1% 1/10W     | 215216        | -            |
| C8209         | 39pF 5% 50V NPO  | 202905        | -                      | L306            | -                    | 226990        | -             | R510            | 191K 1% 1/10W   | 215214        | -            |
| C8210         | 15pF 5% 50V NPO  | 202907        | -                      | L307            | -                    | 226991        | -             | R511            | 37.4K 1% 1/10W  | 215215        | -            |
| C8221         | 33pF 5% 50V NPO  | 194911        | -                      | L308            | -                    | 226985        | -             | R512            | 20K 2% 1/10W    | 197904        | -            |
| C8224         | 27pF 5% 50V NPO  | 197604        | -                      | L601, 02        | -                    | 226999        | -             | R514            | 6800 2% 1/10W   | 194916        | -            |
| C8225         | 10pF 5% 50V NPO  | 214740        | -                      | L603            | -                    | 227002        | -             | R515            | 220K 2% 1/10W   | 192093        | -            |
| C8226         | 56pF 5% 50V NPO  | 214741        | -                      | L604            | -                    | 227001        | -             | R516            | 6800 2% 1/10W   | 194916        | -            |
| C8227         | 560pF 5% 50V NPO | 200139        | -                      | L701, 02        | -                    | 226986        | -             | R605            | 470 2% 1/10W    | 194926        | -            |
| C8230         | 27pF 5% 50V NPO  | 197604        | -                      | L703            | -                    | 226989        | -             | R609            | 51K 2% 1/10W    | 205365        | -            |
| C8231         | 10pF 5% 50V NPO  | 214740        | -                      | L704            | -                    | 226996        | -             | R701            | 7500 2% 1/10W   | 205348        | -            |
| C8238, 42     | 100pF 5% 50V NPO | 193340        | -                      | L1401, 02       | 100μH                | 160186        | -             | R704, 06        | 51K 2% 1/10W    | 205365        | -            |
| C8243         | 56pF 5% 50V NPO  | 214741        | -                      | L1701           | 100μH                | 160186        | -             | R708            | 1200 2% 1/10W   | 194920        | -            |
| C8248         | 470pF 5% 50V NPO | 214732        | -                      | L1702           | 120μH                | 227813        | -             | # R1403, 05, 06 | 2200 2% 1/4W    | 829222        | Nonflammable |
| C8249         | 220pF 5% 50V NPO | 178188        | -                      | L1703           | 100μH                | 160186        | -             | # R1408, 10     | 2200 2% 1/4W    | 829222        | Nonflammable |
| C8301, 02     | 56pF 5% 50V NPO  | 190542        | -                      | L2201           | -                    | 227052        | -             | # R1422         | 100 5% 1/4W     | 829110        | -            |
| C8307, 08, 10 | 10pF 5% 50V NPO  | 214740        | -                      | L2301           | 2.2μH                | 197616        | -             | # R1429, 31     | 1000 5% 1/4W    | 108865        | -            |
| CF2201        | Filter           | 195702        | -                      | L2302           | VCO                  | 227070        | -             | # R1441         | 100 5% 1/4W     | 829110        | -            |
| CF8101        | Filter           | 181125        | -                      | L2303, 04       | 1μH                  | 195709        | -             | # R1493, 94     | 1000 5% 1/4W    | 108865        | -            |
| CF8102        | Filter           | 195702        | -                      | L2305           | 10μH                 | 175409        | -             | # R1558         | 100 5% 1/4W     | 829110        | -            |
| DL2501        | Delay Line       | 227063        | -                      | L2501           | 100μH                | 160186        | -             | R1601           | 43.2K 1% 1/10W  | 225704        | -            |
| DL2601        | Delay Line       | 223169        | -                      | L2502           | 82μH                 | 215503        | -             | R1602           | 61.9K 1% 1/10W  | 225705        | -            |
| # DY1 (2)     | Yoke             | -             | Horiz .95mH, Vert 25mH | L2503           | 12μH                 | 210687        | -             | R1605           | 10 2% 1/10W     | 205308        | -            |
| E706          | Jack             | 227055        | RF Input               | L2504           | 82μH                 | 215503        | -             | R1606           | 3300 2% 1/10W   | 195938        | -            |
| # F4001       | Fuse             | 175425        | 5A, 125V               | L2505, 06       | 10μH                 | 161243        | -             | R1607           | 3000 2% 1/10W   | 194917        | -            |
| FB3101        | Ferrite Bead     | 226467        | -                      | L2507           | 68μH                 | 149167        | -             | R1610           | 22K 2% 1/10W    | 205357        | -            |
| FB4101, 02    | Ferrite Bead     | 154042        | -                      | L2601           | 33μH                 | 200161        | -             | R1611, 12       | 470 2% 1/10W    | 194926        | -            |
| FB4103        | Ferrite Bead     | 227067        | -                      | L2602           | 10μH                 | 161243        | -             | # R1613         | 13 5% 1/4W      | 829013        | -            |
| FB4104 Thru   |                  |               |                        | L2603           | 18μH                 | 223800        | -             | # R1780         | 100 5% 1/4W     | 829110        | -            |
| FB4115        | Ferrite Bead     | 154042        | -                      | L2604           | 100μH                | 161243        | -             | R1911           | 6800 2% 1/10W   | 194916        | -            |
| FB4116        | Ferrite Bead     | 152103        | -                      | L2605, 06       | 56μH                 | 196107        | -             | R1912           | 10K 2% 1/10W    | 195937        | -            |
| FB4401        | Ferrite Bead     | 229324        | -                      | L2607           | 68μH                 | 149167        | -             | # R1947         | 33 5% 3W        | 227358        | -            |
| FB4404        | Ferrite Bead     | 154042        | -                      | L2608           | 10μH                 | 161243        | -             | # R1955, 58     | 4.7 5% 1/4W     | 200197        | -            |
| FB4501        | Ferrite Bead     | -             | -                      | L2609           | 100μH                | 160186        | -             | R2301           | 820 2% 1/10W    | 192088        | -            |
| FB4591        | Ferrite Bead     | 226467        | -                      | L2701, 02       | 10μH                 | 175409        | -             | R2304           | 150 2% 1/10W    | 205334        | -            |
| FB4701, 02    | Ferrite Bead     | 154042        | -                      | L2705           | 47μH                 | 195713        | -             | R2310, 11       | 1000 2% 1/10W   | 197638        | -            |
| FB5201, 02    | Ferrite Bead     | 226467        | -                      | L2901, 02, 03   | 10μH                 | 161243        | -             | R2315, 16       | 100K 2% 1/10W   | 192094        | -            |
| FB5203        | Ferrite Bead     | 227410        | -                      | L2904           | 10μH                 | 175409        | -             | R2318           | 15K 2% 1/8W     | 192835        | -            |
| FB8201 Thru   |                  |               |                        | L3101           | 10μH                 | 161243        | -             | R2320           | 470 2% 1/10W    | 194926        | -            |
| FB8206        | Ferrite Bead     | 226467        | -                      | L3301, 02, 03   | 82μH                 | 227095        | -             | R2321           | 470 2% 1/8W     | 182628        | -            |
| FL101         | Filter           | 181470        | High Pass              | L3304           | 56μH                 | 227093        | -             | R2501, 02       | 470 2% 1/10W    | 194926        | -            |
| IR3401        | Receiver         | 218379        | IR                     | # L4001         | Line Filter          | 227014        | -             | R2504           | 220 2% 1/10W    | 192089        | -            |
| J1            | Jack             | 227334        | Headphone              | # L4002         | Line Filter          | 227283        | -             | R2505           | 6200 2% 1/10W   | 205347        | -            |
| J2            | Jack             | 227334        | A/V Input              | L4101, 02, 03   | 2.2μH                | 143893        | -             | R2506           | 1800 2% 1/10W   | 197903        | -            |
| J1404         | Jack             | 227348        | Audio 1 Left Input     | L4104, 05       | 27μH                 | 190017        | -             | R2509           | 5100 2% 1/10W   | 205345        | -            |
| J1405         | Jack             | 227347        | Audio 1 Right Input    | L4201           | Degaussing           | 214167        | -             | R2510           | 1500 2% 1/10W   | 197628        | -            |
| J1406         | Jack             | 227348        | Audio 2 Left Input     | L4202           | Field Neutralization | 225821        | -             | R2515           | 680 2% 1/4W     | 175312        | -            |
| J1407         | Jack             | 227347        | Audio 2 Right Input    | L4401           | 2.2μH                | 190480        | -             | R2516           | 1000 2% 1/10W   | 197638        | -            |
| J1410         | Jack             | 227348        | HI-FI Left Output      | # L4402         | 22.5μH               | 227313        | -             | R2517           | 120 2% 1/10W    | 205332        | -            |
| J1414         | Jack             | 227348        | Selected Left Output   | # L4403         | 320μH                | 227059        | -             | R2520           | 7500 2% 1/10W   | 205348        | -            |
| J1415         | Jack             | 227347        | Selected Right Output  | # L4404         | 140μH                | 227044        | -             | R2521           | 3900 2% 1/10W   | 197907        | -            |
| J1417         | Jack             | 227347        | HI-FI Right Output     | # L4405         | 17.5μH               | 226458        | -             | R2523           | 560 2% 1/10W    | 205338        | -            |
| J6501         | Jack             | 227349        | Video Input 1          | L5001, 02, 03   | 22μH                 | 195712        | -             | R2524           | 270 2% 1/10W    | 197623        | -            |
| J6502         | Jack             | 227349        | Video Input 2          | # L5004, 05     | 10μH                 | 175409        | -             | R2525           | 680 2% 1/10W    | 195939        | -            |
| J6503         | Socket           | 214607        | S-Video Input          | # L5006, 07, 08 | 22μH                 | 195712        | -             | R2526           | 270 2% 1/10W    | 197623        | -            |
| J6504         | Jack             | 227349        | Select Video Output    | L6501, 02       | 100μH                | 160186        | -             | R2527           | 470 2% 1/10W    | 194926        | -            |
| # K4201       | Relay            | 190490        | Degaussing             | L8101, 02       | 1μH                  | 195709        | -             | R2528           | 6800 2% 1/10W   | 194916        | -            |
| # KS5001      | Socket           | 207936        | CRT                    | L8103           | 15μH                 | 197613        | -             | R2531           | 470K 2% 1/10W   | 205381        | -            |
| L102          | -                | 227003        | -                      | L8104           | 1.8μH                | 227422        | -             | R2534           | 6800 2% 1/10W   | 194916        | -            |
| L103          | -                | 227005        | -                      | L8105           | 27μH                 | 190017        | -             | R2535           | 8200 2% 1/10W   | 205349        | -            |
| L104          | -                | 226992        | -                      | L8106           | 100μH                | 160186        | -             | R2536           | 6800 2% 1/10W   | 194916        | -            |
| L105          | -                | 227006        | -                      | L8201           | 22μH                 | 195712        | -             | R2538           | 820 2% 1/10W    | 192088        | -            |
| L106          | 3.9μH            | 200559        | -                      | L8202           | 47μH                 | 190729        | -             | R2539           | 620 2% 1/10W    | 205339        | -            |
| L107          | -                | 226987        | -                      | L8203           | 15μH                 | 197613        | -             | R2541           | 8200 2% 1/10W   | 205349        | -            |
| L108          | -                | 226998        | -                      | L8204           | 68μH                 | 149167        | -             | R2542           | 10 2% 1/10W     | 205308        | -            |
| L109          | -                | 226993        | -                      | # P4001         | Line Cord            | 227065        | AC, Polarized | R2543           | 51K 2% 1/8W     | 181062        | -            |
| L110          | -                | 226994        | -                      | R102            | 1200 2% 1/10W        | 194920        | -             | R2544           | 4700 2% 1/10W   | 192097        | -            |
| L111          | -                | 226998        | -                      | R107            | 470K 2% 1/10W        | 205381        | -             | R2545           | 8200 2% 1/4W    | 175366        | -            |
| L112          | -                | 226995        | -                      | R109            | 150 2% 1/10W         | 205334        | -             | R2546           | 27K 2% 1/8W     | 193061        | -            |
| L113          | -                | 227000        | -                      | R112, 14        | 1200 2% 1/10W        | 194920        | -             | R2547           | 22K 2% 1/10W    | 205357        | -            |
| L114          | -                | 226996        | -                      | R303            | 3000 2% 1/10W        | 194917        | -             | R2548           | 7500 2% 1/10W   | 205348        | -            |
| L115          | -                | 227000        | -                      | R306            | 82K 2% 1/10W         | 197906        | -             | R2549           | 33K 2% 1/8W     | 176813        | -            |
| L301          | -                | 227427        | -                      | R307            | 51K 2% 1/10W         | 205365        | -             | R2550           | 10K 2% 1/10W    | 195937        | -            |
| L302          | -                | 226988        | -                      | R309, 17        | 91 2% 1/10W          | 205330        | -             | R2552           | 15K 2% 1/10W    | 205354        | -            |
| L303          | -                | 227005        | -                      | R318            | 470 2% 1/10W         | 194926        | -             | # R2555         | 100 5% 1/4W     | 829110        | -            |
| L304          | -                | 226983        | -                      | R505            | 51K 2% 1/10W         | 205365        | -             | R2559           | 1000 2% 1/10W   | 197638        | -            |



PARTS LIST continued

| Item No.  | Function/Rating | Mfr. Part No. | Notes | Item No.      | Function/Rating           | Mfr. Part No. | Notes | Item No.        | Function/Rating     | Mfr. Part No. | Notes  |
|-----------|-----------------|---------------|-------|---------------|---------------------------|---------------|-------|-----------------|---------------------|---------------|--------|
| # R2560   | 2 5% 1/4W       | 181419        | -     | R2927         | 1500 2% 1/10W             | 197628        | -     | # R4700         | Focus/Screen        | 227062        | -      |
| R2561     | 27K 2% 1/10W    | 205245        | -     | R2929         | 910 2% 1/10W              | 197627        | -     | # R4703         | 2.2 5% 3W Wirewound | 227091        | -      |
| R2562     | 33K 2% 1/10W    | 205360        | -     | R2930         | 1500 2% 1/8W              | 181482        | -     | R4712, 15, 16   |                     | 1000 2% 1/10W | 197638 |
| R2563     | 1000 2% 1/8W    | 190462        | -     | R2932         | 910 2% 1/10W              | 197627        | -     |                 |                     | 100 5% 1/4W   | 829110 |
| R2567     | 7500 2% 1/10W   | 205348        | -     | R2933         | 1500 2% 1/10W             | 197628        | -     | # R4717         | 1000 2% 1/10W       | 197638        | -      |
| R2568     | 8200 5% 1/4W    | 175366        | -     | R3103         | 20K 2% 1/10W              | 197904        | -     | R4718, 19       | 1000 2% 1/10W       | 197638        | -      |
|           | 6200 2% 1/4W    | 179316        | -     | R3105         | 1000 2% 1/8W              | 190462        | -     | R4720A          | 1000 2% 1/10W       | 197638        | -      |
| R2569     | 5100 2% 1/10W   | 205345        | -     | R3120         | 24K 2% 1/10W              | 205358        | -     | R4723           | 330K 2% 1/10W       | 205377        | -      |
| R2570     | 4300 2% 1/10W   | 205344        | -     | R3121         | 1000 2% 1/8W              | 190462        | -     | R4723A          | 20K 2% 1/4W         | 175351        | -      |
| R2571, 72 | 5100 2% 1/10W   | 205345        | -     | R3122         | 470 2% 1/10W              | 194926        | -     | R4724           | 150K 2% 1/10W       | 195931        | -      |
| R2573     | 2400 2% 1/10W   | 205342        | -     | R3143         | 1000 2% 1/8W              | 190462        | -     | R4726           | 5100 2% 1/2W        | 175417        | -      |
| R2576     | 3000 2% 1/10W   | 194917        | -     | R3201         | 1000 2% 1/8W              | 190462        | -     | # R4726A        | 910 5% 1/2W         | 830191        | -      |
| R2580     | 27K 2% 1/10W    | 205245        | -     | R3212         | 33K 2% 1/8W               | 176813        | -     | R4727           | 5100 2% 1/10W       | 205345        | -      |
| R2584     | 330 2% 1/10W    | 195929        | -     | R3302, 06, 10 |                           | 205337        | -     | R4728           | 10K 2% 1/10W        | 195937        | -      |
| R2586     | 510 2% 1/10W    | 202585        | -     |               |                           | 197628        | -     | R4729           | 5100 2% 1/10W       | 205345        | -      |
| R2587     | 270 2% 1/10W    | 197623        | -     | R3316         | 5100 2% 1/10W             | 205345        | -     | R4730           | 7500 2% 1/4W        | 175761        | -      |
| R2588     | 510 2% 1/10W    | 202585        | -     | R3328, 29     | 10 2% 1/10W               | 205308        | -     | R4731           | 1000 2% 1/10W       | 197638        | -      |
| R2589     | 2200 2% 1/10W   | 192096        | -     | R3330         | 1000 2% 1/10W             | 197638        | -     | R4732A          | 1200 2% 1/10W       | 194920        | -      |
| R2590     | 330 2% 1/10W    | 195929        | -     | R3331, 33     | 10 2% 1/10W               | 205308        | -     | R4733A          | 6200 2% 1/10W       | 205347        | -      |
| R2591     | 470 2% 1/8W     | 182628        | -     | R3338, 53     | 1000 2% 1/8W              | 190462        | -     | # R4734         | 10K 10% 1/2W        | 227374        | -      |
| R2592     | 820 2% 1/10W    | 192088        | -     | R3358         | 100 2% 1/10W              | 218508        | -     | # R4738         | 30 5% 3W Wirewound  | 227376        | -      |
| R2595     | 1000 2% 1/10W   | 197638        | -     | R3359         | 1000 2% 1/8W              | 190462        | -     | R4739           | 3900 2% 1/10W       | 197907        | -      |
| R2596     | 6800 2% 1/10W   | 194916        | -     | R3365, 67     |                           | 205334        | -     | # R4740         | 910 5% 1/4W         | 829191        | -      |
| R2601     | 1600 2% 1/4W    | 175311        | -     |               |                           | 190462        | -     | # R4785         | 100K 5% 1/2W        | 227079        | -      |
| R2602     | 2000 2% 1/10W   | 205341        | -     | R3369         | 1000 2% 1/8W              | 190462        | -     | # R4790         | 27K 5% 1/2W         | 206037        | -      |
| R2603     | 820 2% 1/10W    | 192088        | -     | R3372         | 470 2% 1/10W              | 194926        | -     | R4791           | 787 1% 1/4W         | 227312        | -      |
| R2608     | 1000 Comb Depth | 181106        | -     | # R3401, 03   | 100 5% 1/4W               | 149602        | -     | R4805           | 39.2K 1% 1/4W       | 190469        | -      |
| R2610     | 732 1% 1/10W    | 227361        | -     | R3501         | 470K 2% 1/10W             | 205381        | -     | R4806           | 49.9K 1% 1/4W       | 227085        | -      |
| R2611     | 910 2% 1/10W    | 197627        | -     | R3503         | 20K 2% 1/10W              | 197904        | -     | R4807           | 22K 2% 1/10W        | 205357        | -      |
| R2631     | 6200 2% 1/4W    | 179316        | -     | R3509         | 470K 2% 1/10W             | 205381        | -     | R4811           | 240K 2% 1/10W       | 205374        | -      |
| R2632     | 4700 2% 1/4W    | 175413        | -     | R3801         | 26.1K 1% 1/8W             | 215218        | -     | # R4814         | 100 5% 1/2W         | 176796        | -      |
| R2714     | 300 2% 1/10W    | 205336        | -     | R3803         | 26.1K 1% 1/8W             | 215218        | -     | R4901           | 2200 2% 1/2W        | 227267        | -      |
| R2715     | 110K 2% 1/10W   | 205369        | -     | R3805         | 26.1K 1% 1/8W             | 215218        | -     | # R4903         | 22 2% 1/4W          | 175357        | -      |
|           | 100K 2% 1/10W   | 192094        | -     | # R4001       | 1.8 10% 15W Wirewound     | 200444        | -     | # R4905         | 37.4K 1% 1/4W       | 227317        | -      |
| R2716     | 300 2% 1/10W    | 205336        | -     | # R4002       | 2.7M 10% 1/2W             | 217662        | -     | # R4907         | 26.7K 1% 1/4W       | 196081        | -      |
|           | 62 5% 1/10W     | 194919        | -     | # R4003       | 68K 5% 1W                 | 179784        | -     | # R4909         | 1500 2% 1/4W        | 175367        | -      |
| R2752     | 470 2% 1/10W    | 194926        | -     | # R4103       | 1.8 5% 2W                 | 227086        | -     | # R4912         | 150K XRP Level      | 207883        | -      |
|           | 470K 2% 1/10W   | 205381        | -     | R4105         | 470 2% 1/10W              | 194926        | -     | # R5004, 05, 06 | 1000 10% 1/2W       | 502210        | -      |
| R2755     | 470K 2% 1/10W   | 205381        | -     | R4110         | 1000 2% 1/8W              | 190462        | -     | # R5007, 08, 09 | 12K 5% 3W           | 227393        | -      |
| R2756     | 240K 2% 1/10W   | 205374        | -     | R4112         | 1650 1% 1/4W              | 190715        | -     | # R5025, 27, 29 | 100 5% 1/4W         | 829110        | -      |
| R2801     | 1200 2% 1/10W   | 194920        | -     | # R4113       | 300 Regulator B+          | 190525        | -     | # R5034         | 100 5% 1W           | 176673        | -      |
| R2802     | 470 2% 1/10W    | 194926        | -     | # R4114       | 45.3K 1% 1/4W             | 176506        | -     | # R5037         | 2200 20% 1/2W       | 502222        | -      |
| R2803     | 1000 2% 1/10W   | 197638        | -     | R4119         | 20K 2% 1/10W              | 197904        | -     | # R5038, 39, 40 | 47 5% 1/4W          | 829047        | -      |
| R2804     | 16K 2% 1/10W    | 205355        | -     | # R4121       | 56 5% 1W                  | 176910        | -     | # R5044, 45, 46 | 47 5% 1/4W          | 829047        | -      |
| R2805     | 220 2% 1/10W    | 192089        | -     | # R4122       | 3.9 5% 7W Wirewound       | 179813        | -     | R5048           | 9100 2% 1/10W       | 205350        | -      |
| R2806     | 1200 2% 1/10W   | 194920        | -     | # R4127       | 8.2 5% 1/2W               | 120595        | -     | R5049           | 910 2% 1/10W        | 197627        | -      |
| R2807     | 1000 2% 1/10W   | 197638        | -     | # R4129       | 330 5% 7W Wirewound       | 200185        | -     | R5054, 55, 58   |                     | 240 2% 1/10W  | 197624 |
| R2809     | 390 2% 1/10W    | 192102        | -     | # R4131       | 220 5% 1W                 | 190555        | -     |                 |                     | 470 5% 1/4W   | 829147 |
| R2810     | 1100 2% 1/10W   | 202586        | -     | # R4132       | 22 5% 2W                  | 179786        | -     | # R5074, 75, 76 | 470 5% 1/4W         | 829147        | -      |
| R2811     | 6200 2% 1/10W   | 205347        | -     | # R4133       | 53.6K 1% 1/4W             | 200189        | -     | # R5089         | 1000 10% 1/2W       | 502210        | -      |
| R2813     | 7500 2% 1/10W   | 205348        | -     | # R4137       | 2.7 5% 2W                 | 227821        | -     | R5201           | 330 2% 1/8W         | 181488        | -      |
| R2815     | 390 2% 1/10W    | 192102        | -     | # R4140       | 1 5% 1W                   | 183140        | -     | R5202           | 1500 2% 1/10W       | 197628        | -      |
| R2817     | 1000 2% 1/10W   | 197638        | -     | # R4141       | 10 5% 1W                  | 175781        | -     | R5203           | 270 2% 1/8W         | 181481        | -      |
| R2901     | 1500 2% 1/10W   | 197628        | -     | R4197         | 220 2% 1/10W              | 192089        | -     | R5204           | 330 2% 1/8W         | 181488        | -      |
| R2904     | 360 2% 1/4W     | 175567        | -     | R4305         | 220 2% 1/4W               | 175324        | -     | R5205           | 68 2% 1/10W         | 205328        | -      |
| R2905     | 1500 2% 1/10W   | 197628        | -     | R4306         | 82 2% 1/10W               | 205329        | -     | R5208           | 1000 2% 1/8W        | 190462        | -      |
| R2906     | 240 2% 1/10W    | 197624        | -     | # R4307       | 75 5% 3W Wirewound        | 227090        | -     | # R5213         | 1000 2% 1/2W        | 829210        | -      |
| R2907     | 150 2% 1/10W    | 205334        | -     | R4358         | 1500 2% 1/10W             | 197628        | -     | R5214           | 100K 2% 1/2W        | 227408        | -      |
|           | 110 2% 1/10W    | 205331        | -     | R4359         | 1000 2% 1/8W              | 190462        | -     | # R5215         | 430 5% 1W           | 831143        | -      |
| R2908     | 220 2% 1/8W     | 181492        | -     | # R4402       | 1000 Horizontal Centering | 227011        | -     | # R5216         | 27 5% 1/4W          | 829027        | -      |
|           | 180 2% 1/8W     | 181491        | -     | # R4403       | 820 5% 1W                 | 175349        | -     | # R5217         | 220 5% 2W           | 175310        | -      |
| R2911     | 360 2% 1/10W    | 205337        | -     | # R4407       | 2200 5% 3W                | 190559        | -     | R5219           | 100K 2% 1/2W        | 227408        | -      |
|           | 1500 2% 1/8W    | 181482        | -     | # R4409       | 10K 2% 1/4W               | 175317        | -     | R5220           | 1000 2% 1/10W       | 197638        | -      |
| R2912     | 240 2% 1/10W    | 197624        | -     | # R4410       | 3300 2% 1/4W              | 175352        | -     | # R5221         | 27 5% 1W            | 210480        | -      |
| R2914     | 150 2% 1/10W    | 205334        | -     | R4412         | 56K 2% 1/10W              | 192095        | -     | R5222           | 1500 2% 1/10W       | 197628        | -      |
| R2915     | 110 2% 1/10W    | 205331        | -     | R4413         | 3900 2% 1/10W             | 197907        | -     | # R5224, 25     | 5.6 5% 1/2W         | 227403        | -      |
|           | 220 2% 1/8W     | 181492        | -     | R4414         | 2200 2% 1/10W             | 192096        | -     | # R6206         | 220 2% 1/2W         | 830122        | -      |
| R2918     | 180 2% 1/8W     | 181491        | -     | R4416         | 47K 2% 1/4W               | 175322        | -     | R6208           | 820 2% 1/2W         | 830182        | -      |
|           | 360 2% 1/10W    | 205337        | -     | R4503         | 15K 2% 1/10W              | 205354        | -     | # R6209         | 47 2% 1/2W          | 830047        | -      |
| R2919     | 1500 2% 1/10W   | 197628        | -     | R4504         | 5100 2% 1/10W             | 205345        | -     | # R6502, 05, 08 | 51 5% 1/4W          | 175414        | -      |
| R2920     | 240 2% 1/10W    | 197624        | -     | # R4507       | 1.5 5% 1W                 | 178619        | -     | # R6526         | 68 5% 1/4W          | 829068        | -      |
| R2921     | 150 2% 1/10W    | 205334        | -     | # R4508, 09   | 180 5% 3W                 | 227094        | -     | R6528           | 1500 2% 1/10W       | 197628        | -      |
|           | 110 2% 1/10W    | 205331        | -     | R4510         | 2000 2% 1/2W              | 227252        | -     | R6529           | 620 2% 1/10W        | 205339        | -      |
| R2922     | 220 2% 1/10W    | 192089        | -     | # R4511       | 1 5% 2W Wirewound         | 145384        | -     | R8101           | 560 2% 1/10W        | 205338        | -      |
|           | 180 2% 1/10W    | 194918        | -     | R4512         | 2000 2% 1/2W              | 227252        | -     | R8102           | 150 2% 1/10W        | 205334        | -      |
| R2926     | 910 2% 1/10W    | 197627        | -     | R4518         | 180 5% 3W Wirewound       | 227316        | -     | R8103           | 1000 2% 1/8W        | 190462        | -      |
|           |                 |               |       |               |                           |               |       | # R8107         | 1 5% 1/4W           | 829A10        | -      |

PARTS LIST continued

| Item No.    | Function/Rating   | Mfr. Part No. | Notes                      | Item No.  | Function/Rating     | Mfr. Part No. | Notes           | Item No.      | Function/Rating | Mfr. Part No. | Notes       |
|-------------|-------------------|---------------|----------------------------|-----------|---------------------|---------------|-----------------|---------------|-----------------|---------------|-------------|
| R8108       | 330 2% 1/10W      | 195929        | -                          |           | PC Board            | 227333        | Headphone       | L603          | -               | 227002        | -           |
| R8109       | 1000 2% 1/10W     | 197638        | -                          |           | PC Board            | 226785        | IN/OUT          | L604          | -               | 227001        | -           |
| R8110       | 1000 1% 1/8W      | 220317        | -                          |           | PC Board            | 226788        | PIP             | L701, 02      | -               | 226986        | -           |
| R8111       | 1000 1% 1/10W     | 214143        | -                          |           | Transmitter         | 221245        | Remote, CRK61A  | L703          | -               | 226989        | -           |
| R8114       | 100K 2% 1/10W     | 192094        | -                          |           | Transmitter         | 221112        | Remote, CRK83A1 | L704          | -               | 226996        | -           |
| R8125       | 1600 2% 1/10W     | 197625        | -                          | MAINTUNER |                     |               |                 | L801          | -               | 226999        | -           |
| R8126       | 1300 2% 1/10W     | 205340        | -                          | C101      | 150pF 5% 50V NPO    | 214032        | -               | R101          | 300 2% 1/10W    | 205336        | -           |
| R8132       | 330 2% 1/10W      | 195929        | -                          | C104      | 330pF 5% 50V NPO    | 205227        | -               | R102          | 1200 2% 1/10W   | 194920        | -           |
| R8139       | 150 2% 1/10W      | 205334        | -                          | C110      | 39pF 5% 50V NPO     | 181090        | -               | R107          | 470K 2% 1/10W   | 205381        | -           |
| R8201       | 15K 2% 1/10W      | 205354        | -                          | C115      | 150pF 5% 50V NPO    | 214032        | -               | R109          | 150 2% 1/10W    | 205334        | -           |
| R8202       | 5600 2% 1/10W     | 205346        | -                          | C117      | 1.5pF ±.1pF 50V NPO | 223146        | -               | R112, 14      | 1200 2% 1/10W   | 194920        | -           |
| # R8205     | 2.4 5% 1W         | 176887        | -                          | C118      | 180pF 5% 50V NPO    | 211039        | -               | R303          | 3000 2% 1/8W    | 194917        | -           |
| R8231       | 330 2% 1/8W       | 181488        | -                          | # C122    | .001 10% 50V        | 192060        | -               | R306          | 82K 2% 1/10W    | 197906        | -           |
| R8232       | 1000 2% 1/10W     | 197638        | -                          | C124      | 68pF 5% 50V NPO     | 193339        | -               | R307          | 51K 2% 1/10W    | 205365        | -           |
| R8240       | 220 2% 1/10W      | 192089        | -                          | C125      | 100pF 2% 50V NPO    | 227089        | -               | R309, 17      | 91 2% 1/10W     | 205330        | -           |
| R8262       | 1800 2% 1/10W     | 197903        | -                          | C302      | 10pF 5% 50V NPO     | 214740        | -               | R318          | 470 2% 1/10W    | 194926        | -           |
| R8303       | 22K 2% 1/8W       | 174367        | -                          | C305      | 27pF 5% 50V N750    | 214760        | -               | R505          | 51K 2% 1/10W    | 205365        | -           |
| R8350       | 26.1K 1% 1/8W     | 215218        | -                          | C306      | 12pF 5% 50V NPO     | 214027        | -               | R509          | 1M 1% 1/10W     | 215216        | -           |
| R8351       | 10K 1% 1/10W      | 215217        | -                          | C307      | 27pF 5% 50V NPO     | 197604        | -               | R510          | 191K 1% 1/10W   | 215214        | -           |
| R8352       | 26.1K 1% 1/8W     | 215218        | -                          | C308      | 120pF 5% 50V NPO    | 194902        | -               | R511          | 37.4K 1% 1/10W  | 215215        | -           |
| R8353       | 10K 1% 1/8W       | 220130        | -                          | C309      | 27pF 5% 50V NPO     | 197604        | -               | R512          | 20K 2% 1/10W    | 197904        | -           |
| R8354       | 26.1K 1% 1/8W     | 215218        | -                          | C310      | .75pF ±.1pF 50V NPO | 227269        | -               | R514          | 6800 2% 1/10W   | 194916        | -           |
| R8355       | 10K 1% 1/8W       | 220130        | -                          | C311      | 27pF 5% 50V N750    | 214760        | -               | R515          | 220K 2% 1/10W   | 192093        | -           |
| R8357       | 14.3K 1% 1/10W    | 215219        | -                          | C312      | 18pF 2% 50V N220    | 227077        | -               | R516          | 6800 2% 1/10W   | 194916        | -           |
| R8358       | 453 1% 1/10W      | 217317        | -                          | C313, 14  | 470pF 5% 50V NPO    | 214732        | -               | R605          | 470 2% 1/10W    | 194926        | -           |
| R8360       | 15.8K 1% 1/10W    | 215199        | -                          | C401      | 27pF 5% 50V NPO     | 197604        | -               | R609          | 51K 2% 1/10W    | 205365        | -           |
| R8361       | 100K 1% 1/10W     | 215221        | -                          | C407, 11  | 33pF 5% 50V NPO     | 194911        | -               | R701          | 7500 2% 1/10W   | 205348        | -           |
| R8365       | 15.8K 1% 1/10W    | 215199        | -                          | C424      | 100pF 5% 50V NPO    | 193340        | -               | R704, 06      | 51K 2% 1/10W    | 205365        | -           |
| R8366       | 100K 1% 1/10W     | 215221        | -                          | C501      | .01 10% 50V         | 215555        | -               | R708          | 1200 2% 1/10W   | 194920        | -           |
| R8370       | 15.8K 1% 1/10W    | 215199        | -                          | C502, 03  | 10pF 5% 50V NPO     | 214740        | -               | R808          | 10 2% 1/10W     | 205308        | -           |
| R8371       | 100K 1% 1/10W     | 215221        | -                          | C505      | 39pF 5% 50V NPO     | 202905        | -               | R2319         | 220 2% 1/10W    | 192089        | -           |
| RN4501      | Resistor Network  | 215499        | -                          | C602      | 100pF 5% 50V NPO    | 193340        | -               | R3802, 04, 06 | 10K 1% 1/10W    | 215217        | -           |
| # RT4201    | PTC Thermistor    | 207768        | -                          | C605      | 330pF 5% 50V NPO    | 205227        | -               | R3807         | 14.3K 1% 1/10W  | 215219        | -           |
| # SC1900    | Connector         | 227346        | Rear External Speakers     | C607      | 22pF 5% 50V NPO     | 174406        | -               | R3808         | 453 1% 1/10W    | 217317        | -           |
| # SC1904    | Connector         | 227346        | Front External Speakers    | C701      | 1pF ±.1pF 50V NPO   | 227084        | -               | R3809         | 820 2% 1/10W    | 192088        | -           |
| SF2301      | Filter            | 227024        | SAW                        | C702      | 2pF ±.1pF 50V NPO   | 227074        | -               | R3810         | 15.8K 1% 1/10W  | 215199        | -           |
| SF2302      | Filter            | 227023        | SAW                        | C703      | 2pF ±.1pF 50V N750  | 226965        | -               | R3811         | 100K 1% 1/10W   | 215221        | -           |
| SF8101      | Filter            | 227024        | SAW                        | C704      | 1pF ±.1pF 50V NPO   | 227084        | -               | R3812         | 15.8K 1% 1/10W  | 215199        | -           |
| SF8102      | Filter            | 227023        | SAW                        | C705      | 27pF 5% 50V N750    | 214760        | -               | R3813         | 100K 1% 1/10W   | 215221        | -           |
| SP1, 2 (3)  | Speaker           | 226332        | 90mm, 8 Ohms, 5W           | C707      | 1pF ±.1pF 50V NPO   | 227084        | -               | R3814         | 15.8K 1% 1/10W  | 215199        | -           |
| SP1, 2 (4)  | Speaker           | 205260        | 51mm, 8 Ohms, 20W          | C708      | 3pF ±.1pF 50V NPO   | 227088        | -               | R3815         | 100K 1% 1/10W   | 215221        | -           |
| SP1, 2 (4)  | Speaker           | 204951        | 130mm, 8 Ohms, 25W         | C709      | 68pF 10% 50V NPO    | 193339        | -               | SW801         | Relay           | 227020        | Antenna A/B |
| SVM         | -                 | 228459        | -                          | C710      | 3pF ±.1pF 50V NPO   | 227088        | -               | T801          | RF Splitter     | 227015        | -           |
| SW1900      | Switch            | 227353        | Internal/External Speakers | C711      | 1pF ±.1pF 50V NPO   | 227084        | -               | Y501          | Crystal         | 182839        | 4MHz        |
| SW3410      | Switch            | 207842        | Channel Up                 | C712      | 3pF ±.1pF 50V NPO   | 227088        | -               |               |                 |               |             |
| SW3411      | Switch            | 205258        | Power                      | C809      | 68pF 5% 50V NPO     | 174410        | -               |               |                 |               |             |
| SW3420      | Switch            | 207842        | Channel Down               | E702      | Jack                | -             | RF Output       |               |                 |               |             |
| SW3421      | Switch            | 207842        | Volume Up                  | FL101     | Filter              | 181470        | High Pass       |               |                 |               |             |
| SW3430      | Switch            | 207842        | Menu                       | J801      | Jack                | 215543        | Antenna A       |               |                 |               |             |
| SW3431      | Switch            | 207842        | Volume Down                | J802      | Jack                | 215543        | Antenna B       |               |                 |               |             |
| SW4401      | Switch            | 190488        | Horizontal Centering       | L101      | -                   | 226982        | -               |               |                 |               |             |
| SW6201      | Switch            | 205225        | Strength                   | L102      | -                   | 227003        | -               |               |                 |               |             |
| SW6202      | Switch            | 211982        | Polarity                   | L103      | -                   | 227005        | -               |               |                 |               |             |
| # T4101     | SMT               | 227319        | -                          | L104      | -                   | 226992        | -               |               |                 |               |             |
| # T4102     | Current Sense     | 227016        | -                          | L105      | -                   | 227006        | -               |               |                 |               |             |
| # T4103     | -                 | 227013        | -                          | L106      | 3.9µH               | 200559        | -               |               |                 |               |             |
| # T4301     | Horizontal Drive  | 227018        | -                          | L107      | -                   | 226987        | -               |               |                 |               |             |
| # T4401 (5) | Horizontal Output | 227318        | -                          | L108      | -                   | 226998        | -               |               |                 |               |             |
| # T4601     | Standby           | 225708        | -                          | L109      | -                   | 226993        | -               |               |                 |               |             |
| # T4701     | -                 | 210878        | -                          | L110      | -                   | 226994        | -               |               |                 |               |             |
| # V101      | CRT               | 89AGF1110     | A89AGF11X10                | L111      | -                   | 226998        | -               |               |                 |               |             |
| Y501        | Crystal           | 182839        | 4MHz                       | L112      | -                   | 226995        | -               |               |                 |               |             |
| Y2801       | Crystal           | 161235        | 3.58MHz                    | L113      | -                   | 227000        | -               |               |                 |               |             |
| Y3101       | Crystal           | 217322        | 8MHz                       | L114      | -                   | 226996        | -               |               |                 |               |             |
| Y4190       | Resonator         | -             | 507kHz                     | L115      | -                   | 227000        | -               |               |                 |               |             |
|             | Resonator         | 227064        | 507.5kHz                   | L301      | -                   | 227427        | -               |               |                 |               |             |
| Y8101       | Resonator         | 227417        | 5.71MHz                    | L302      | -                   | 226988        | -               |               |                 |               |             |
| Y8201       | Crystal           | 197652        | 14.318MHz                  | L303      | -                   | 227005        | -               |               |                 |               |             |
| Y8301       | Crystal           | 182839        | 4MHz                       | L304      | -                   | 226983        | -               |               |                 |               |             |
|             | Adapter           | AH055         | Antenna 75 To 300 Ohms     | L305      | -                   | 226984        | -               |               |                 |               |             |
|             | Fuse Holder       | 176642        | For F4001 (2 Used)         | L306      | -                   | 226990        | -               |               |                 |               |             |
|             | PC Board          | 228452        | A/V Input                  | L307      | -                   | 226991        | -               |               |                 |               |             |
|             | PC Board          | 227820        | CRT                        | L308      | -                   | 226985        | -               |               |                 |               |             |
|             | PC Board          | 226787        | Dynamic Focus              | L601, 02  | -                   | 226999        | -               |               |                 |               |             |
|             | PC Board          | 226784        | Front Panel                |           |                     |               |                 |               |                 |               |             |

PROSCAN

MODEL PS35160FM1 (CHASSIS CTC179DJ)

# For SAFETY use only equivalent replacement part.  
\* Lead configuration may vary from original.  
% Use insulating hardware supplied with replacement.  
(1) Part of EEPROM kit Part No. 229779 (Marked –97H or before) or Part No. 229780 (Marked –97I or later).  
(2) Bonded part of CRT.  
(3) Used in models PS35160FM1 and PS35160JX1.  
(4) Used in model PS35660LM1.  
(5) Screen and focus controls are part of T4401.