

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 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 inner board wiring for pinched wires or wires contacting any high wattage resistors. Check that all knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

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

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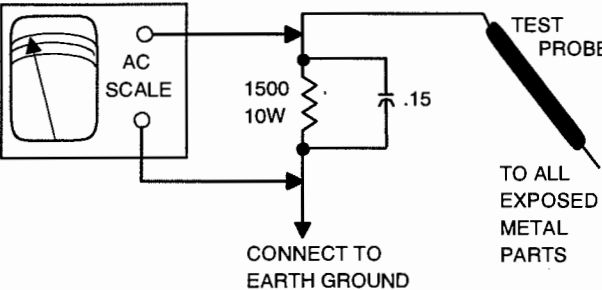
SAFETY CHECKS -- FIRE AND SHOCK HAZARD

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.



HIGH VOLTAGE SHUTDOWN TEST

After servicing the high voltage circuits, test the shutdown circuit by momentarily applying an external voltage of 4.0V to pin 50 of IC7225. The receiver should go into shutdown losing sound and raster. To return receiver to normal operation, remove the external voltage source and press the power button.



98PF01332



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3980

PHOTOFACT® Technical Service Data

SET 3980

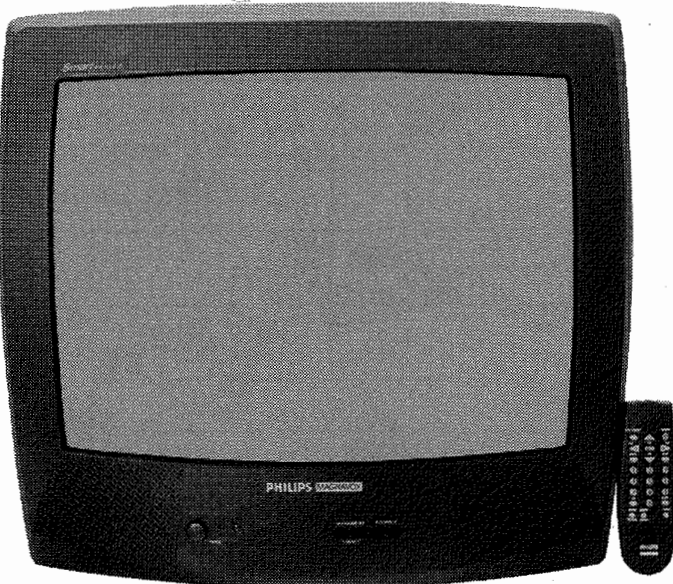
MODEL PS1955C125

PHILIPS/MAGNAVOX

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PHILIPS/MAGNAVOX  
Model PS1955C125



Complete coverage  
for servicing a television receiver...

- Schematics
- Parts list
- Component locations
- Troubleshooting guide

Coverage includes these additional models:

MODELS	MODELS
PS1955C121	19PS54C121
PS1955C122	19PS54C122
PS1955C127	19PS54C125
XS1955C121	19PS54C127
XS1955C125	



HOWARD W. SAMS & COMPANY

MAY 1998 SET 3980

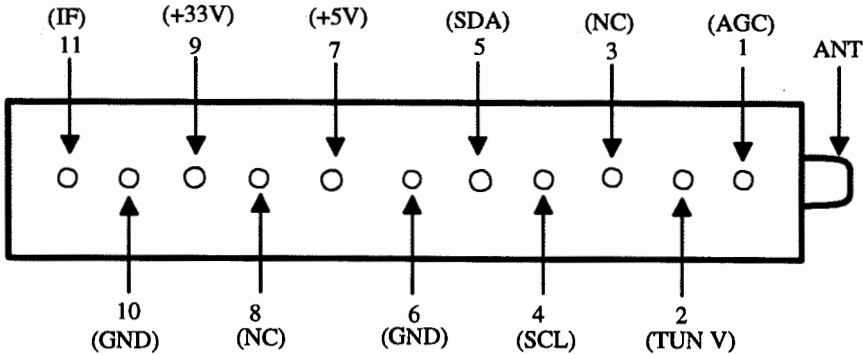
For Supplier Address,  
See PHOTOFACT Annual Index

3980

TUNER INFORMATION

TUNER VOLTAGE CHART							
Pin No.	VHF Low Band	VHF High Band	UHF Band	Pin No.	VHF Low Band	VHF High Band	UHF Band
1 (AGC)	2.4V	2.4V	2.3V	9 (+33V)	33.0V	33.0V	33.0V
2 (TUN V)	.8V	2.7V	3.7V	10 (GND)	0V	0V	0V
3 (NC)	1.4V	1.4V	1.4V	11 (IF)	0V	0V	0V
4 (SCL)	3.9V	3.9V	4.5V	NOTE: VHF Low Band voltages taken on channel 2. VHF High Band voltages taken on channel 7. UHF Band voltages taken on channel 14.			
5 (SDA)	3.9V	3.9V	4.5V				
6 (GND)	0V	0V	0V				
7 (+5V)	5.5V	5.5V	5.5V				
8 (NC)	1.5V	1.5V	1.5V				

TUNER TERMINAL GUIDE



SCHEMATIC NOTES

# For SAFETY use only equivalent replacement part, see parts list.

- ✖ Circuitry not used in some versions.
- Circuitry used in some versions.
- ⏏ Ground
- ⏏ Chassis ground
- ⏏ Common tie point
- △ Taken from common tie point
- 3 Schematic **CIRCUITRACE**®: Voltage source tie point.
- A— Cabling: Heavy lines reduce use of multiple lines.

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

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 1000μV 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.

TROUBLESHOOTING

POWER SUPPLY

Check F1500. If fuse is open, check D6502 thru D6505, C2500, C2502, C2505, and C2508. Apply 120VAC, check for 160V\* at the cathode of D6502. If voltage is missing, check L5500 and D6502 thru D6505. Check for 95.0V at the cathode of D6550. If voltage is missing, check IC7520, Q7518, and T5545. Turn receiver on and check for 13.0V at the cathode of D6443, check for 7.8V at pin 8 of IC7541, check for 5.0V at pin 9 of IC7541. If voltages are missing, check IC7541, F1572, and T5545. Check for 10.0V at the cathode of D6570. If voltage is missing, check F1571, D6570, and T5545. If voltages are present, refer to the "Horizontal" section of this Troubleshooting guide.

\* Taken from common tie point.

HIGH VOLTAGE SHUTDOWN

**CAUTION:** When defeating the high voltage shutdown circuit, do not exceed the maximum high voltage specified on the schematic, as this may cause excessive X-ray radiation and damage the CRT and associated components. Monitor the high voltage while troubleshooting.

The voltage from pin 8 of T5446 is monitored at pin 50 of IC7225. Should the high voltage increase, the output will increase. This will shut down the horizontal oscillator and the high voltage. At the same time pin 50 of IC7225 is monitoring the regulated source of voltage at pin 8 of IC7541 and the output of T5545 at F1571. If for any reason the voltage would rise at pin 50 of IC7225 more than 3.85V the reciever will shut down.

HORIZONTAL

Determine if the receiver is in shutdown by referring to the "High Voltage Shutdown" section of this Troubleshooting guide. If the receiver is not in shutdown, inject a horizontal signal at the base of Q7445. If horizontal deflection is now present, check Q7440, Q7441, and pins 40 and 41 of IC7225. If horizontal deflection is not present, check Q7445, T5446, and the components associated with D6449, D6443, D6451, D6454, D6481, and D6470 for defects. The high voltage rectifier is part of T5446 and if defective will affect the operation of the horizontal circuits. Horizontal linearity or foldover may be caused by C2445, C2449, C2450, C2456, C2469, and C2471 being defective.

VERTICAL

Check for a proper waveform at pin 7 of IC7401. If the waveform is missing, check pin 47 of IC7225. If the waveform is present, check IC7401. Vertical linearity or height problems may be caused by vertical feedback and bias circuits, check C2463, C2466, C2476, and C2414.

IF AGC

Inject a video IF signal at pin 48 of IC7225 and check for video on the CRT. If video is present, check the tuner, tuner control, and tuner AFC circuits. Check for a video waveform at pin 6 of IC7225. If waveform is present, refer to the "Video" section of this Troubleshooting guide. If waveform is missing, apply AGC bias to pin 54 of IC7225. If the waveform is now present, check pins 5, 53 and 54 of IC7225. If waveform is still missing, check IC7225.

VIDEO

Inject a video signal at pin 6 of IC7225 and check for video on the CRT. If video is present, refer to the "IF AGC" section of this Troubleshooting guide. If video is missing on CRT, check for a video waveform at pin 13 of IC7225. If waveform is missing, check Q7214 and Q7200. If waveform is present, check for a video waveform at pin 19 of IC7225. If waveform is missing, check IC7225. If waveform is present, refer to the "Chroma" section of this Troubleshooting guide.

CHROMA

Check for proper waveforms at pins 19, 20, and 21 of IC7225. If the waveforms are missing, check IC7225 and the 3.58MHz oscillator at pin 34 of IC7225. If waveforms are present at pins 19, 20, and 21 of IC7225, refer to the "Raster" section of this Troubleshooting guide.

RASTER

Check the CRT and CRT voltages. If red is missing, check pin 21 of IC7225, Q7301, Q7304, and Q7305. If green is missing, check pin 20 of IC7225, Q7302, Q7306, and Q7307. If blue is missing, check pin 19 of IC7225, Q7303, Q7308, and Q7309. If the raster has a keystone shape, check the deflection yoke. If the raster has height or width problems, refer to the "Vertical," "Horizontal," or "Power Supply" section of this Troubleshooting guide.

AUDIO

Select an active channel and check for an audio waveform at pin 15 of IC7225. If the audio is missing, check Q7215 and pins 1, 55, and 56 of IC7225. Check for an audio waveform at pin 5 of IC700. If the audio is missing, check Q702 and Q703. If the audio is present, select a station that is transmitting a stereo signal and check for audio waveforms at pins 13 and 14 of IC700. If the waveforms are missing, check IC700. If the waveforms are present, check for audio waveforms at pins 4 and 13 of IC720. If the waveforms are missing, check IC710, IC720, and Q720. If the waveforms are present, check IC730.

MISCELLANEOUS ADJUSTMENTS

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness, contrast, and color to minimum. Connect a high voltage probe to CRT anode. High voltage range should be between 24.5kV and 26kV.

+ 95V

Tune in a picture. Set picture and brightness to normal. Connect a digital voltmeter to the cathode of D6550. Adjust R3540 for 95.0V ±1.0V.

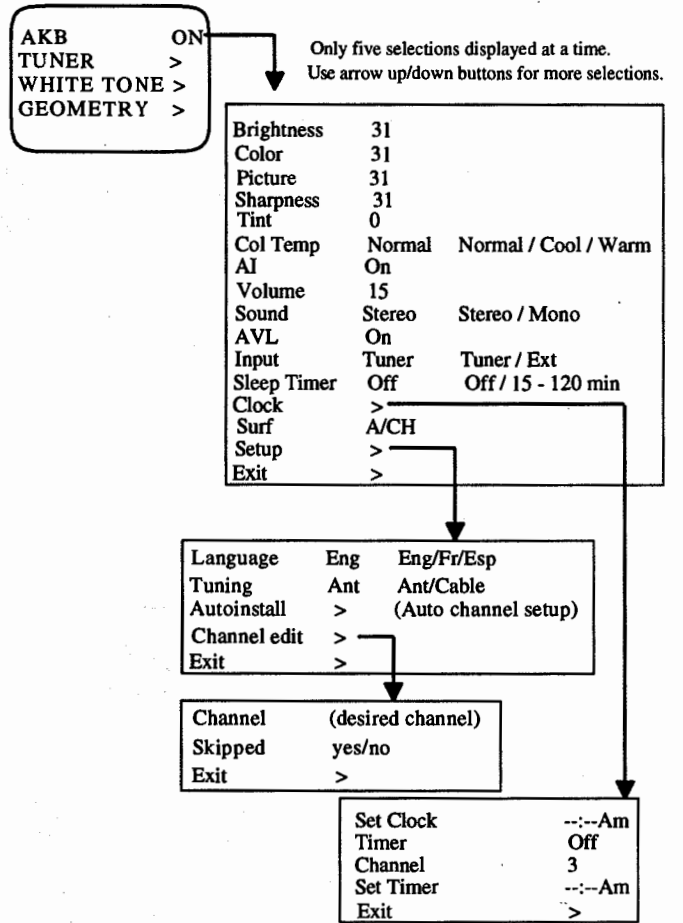
SERVICE ALIGNMENT MODE INFORMATION

To enter service alignment mode, turn the receiver on, then press 1, 6, 2, 5, 9, 6, and press the menu button on the remote, without allowing time out between key entries. The first menu is the main menu, there are four selections in the main menu.

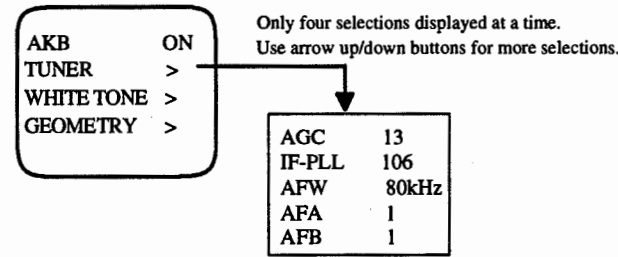
At any time within the menus, if the exit item is selected, the receiver will display the previous menu.

Press menu button for next menu. Press adjust right/left to either turn selection on /off or to proceed to next menu. Press the adjust up/down arrows to make a selection.

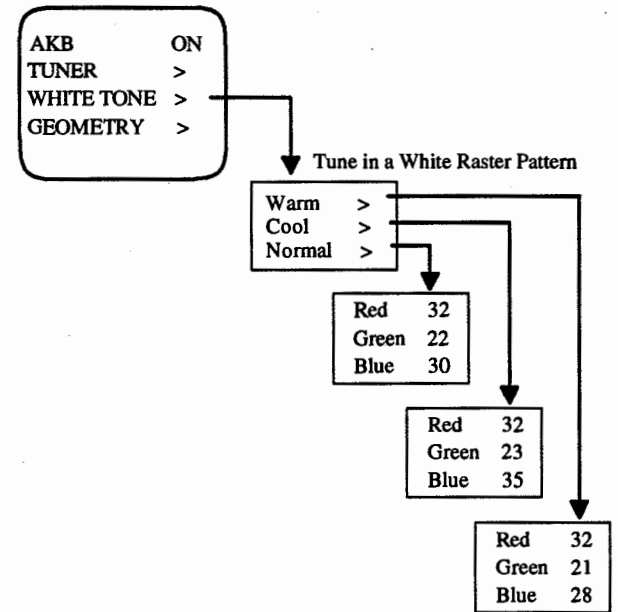
The following chart contains specific information to the AKB selection on the main menu.



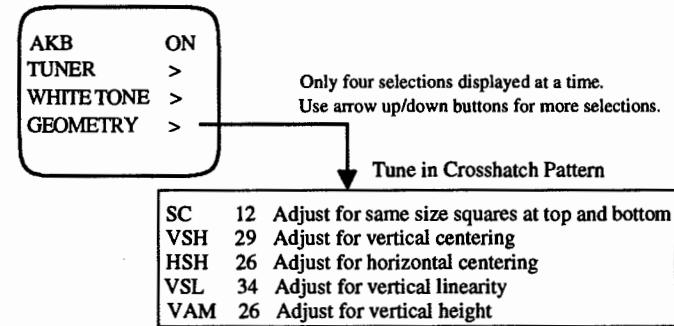
The following chart contains specific information to the TUNER selection on the main menu.



The following chart contains specific information to the WHITE TONE selection on the main menu.



The following chart contains specific information to the GEOMETRY selection on the main menu.



DEFAULT SERVICE MODE INFORMATION

To enter default service mode, turn the receiver on, then press 0, 6, 2, 5, 9, 6, and press the menu button on the remote, without allowing time out between key entries.

The first number (0008) is a run timer. The display will increment based on the amount of time the receiver has been on.

The second number (2.8.83) is the software ID (2), the software version (8), and the cluster number (8) for DBX, or (83) for stereo but not DBX.

The letter S indicates that the service mode is active.

The next line a two letter code of the name of one of the features of the set. Next to it on or off shows if the feature is active or not.

The next line shows the error code number. The five most recent errors will be displayed next to ERR.

See table below for error codes information.

Description	Description
0 No error.	4 DBX stereo decoder error.
1 Micro RAM error.	5 Signal processor error.
2 General I2C Bus error.	6 EEPROM error.
3 EEPROM checksum error.	7 Tuner error (PLL).

CODE MEANING

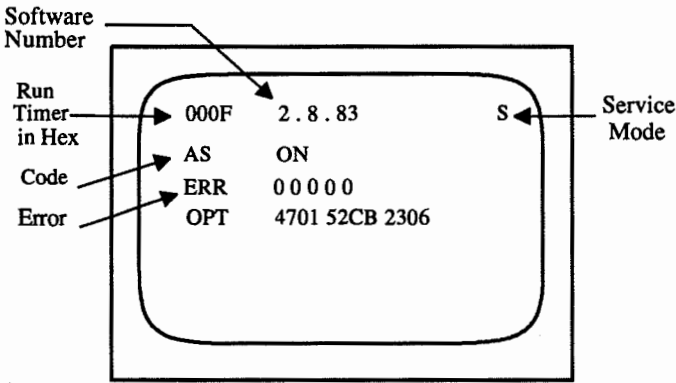
On the The second line, a two letter code represents one of the features of the set. The number following will be either on or off, indicating if that feature is active or not.

Code	State	Description
AS	On	Autoscan enable.
AV	Off	AVL in menu.
BA	Off	Bass boost.
BO	Off	Boost in menu.
BS	Off	Black stretch.
CB	On	Channel blanking enable.
CO	Off	Clock in menu.
CT	Off	Color temperature in menu.
DC	On	Auto detect BCST/CABL in Autoprogram.
MS	Off	Message in menu.
SB	SA	Sound board SA stereo, MA mono, BT DBX stereo.
SL	Off	Smart sound AVL.
SM	On	Sound mode.
SP	Off	Smart picture enable.
SU	Off	Smart surf enable in menu.
TR	Off	Treble boost.
VI	Off	Factory preset mode.
VL	Off	Volume limiter.
XO	Off	External 1 (A/V) input enable and in menu.

The next codes are not to be reset. They should be set in off state.  
TUN. FOA, FOB  
EXT. FOA, FOB

WHITE BALANCE

Tune in a white raster pattern, then enter service alignment mode. Set brightness, sharpness, tint, and picture to midrange. Set color and screen to minimum. Set red to the value of 32, set blue to the value of 32, then set green to a value that will give a white raster. Tune in a black and white picture and adjust each of the red and blue for best white balance at all brightness levels.



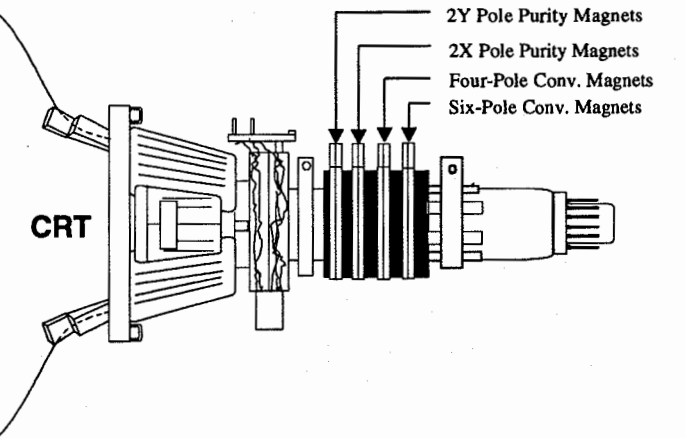
COLOR PURITY

Operate the receiver for 15 minutes. Use a degaussing coil to demagnetize the CRT and mounting hardware. Position the convergence/purity assembly with the 2Y pole rings over the gun element gap nearest the CRT bell gap (between G2 and G3). Loosen the yoke and remove the yoke wedges. Slide the yoke against the bell of the CRT and tighten the clamp enough to hold the yoke in position. Tune in a single-cross pattern and adjust the 2Y pole rings for parallel red and blue lines, as centered and overlapped as possible. Tune in a white screen. Spread the 2X pole rings for a centered green area. Move the yoke back for best green purity and tighten the yoke clamp just enough to hold the yoke in position. Perform convergence adjustment.

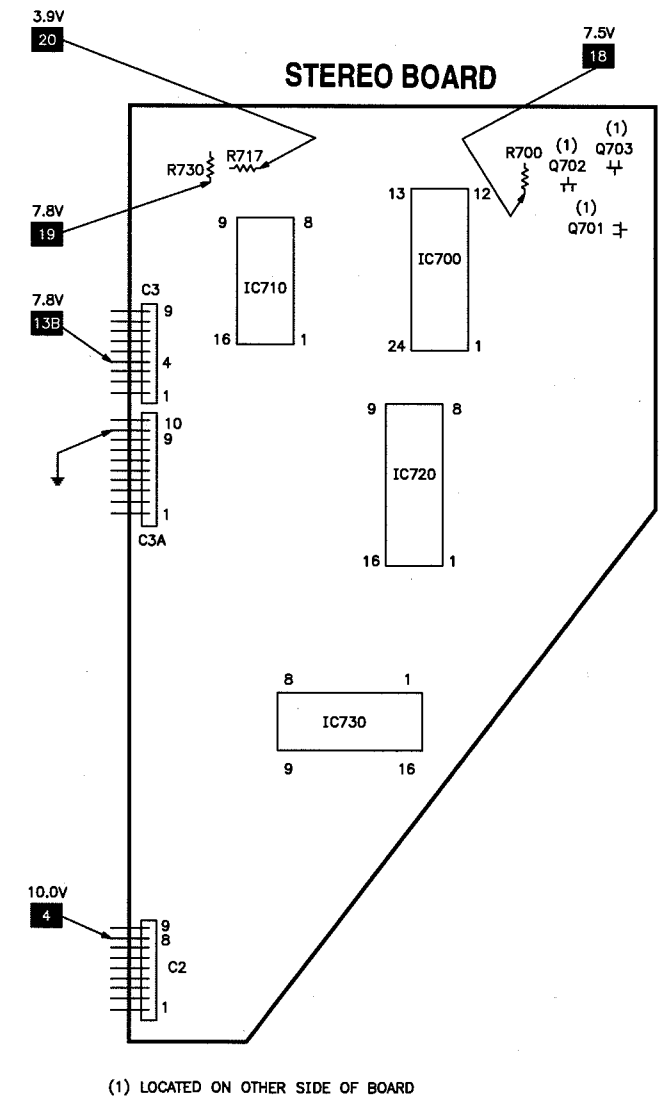
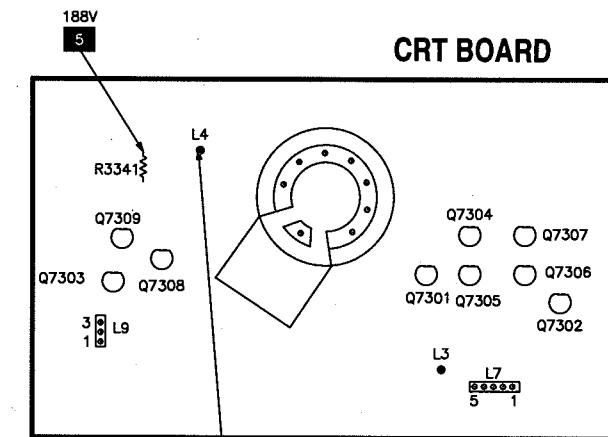
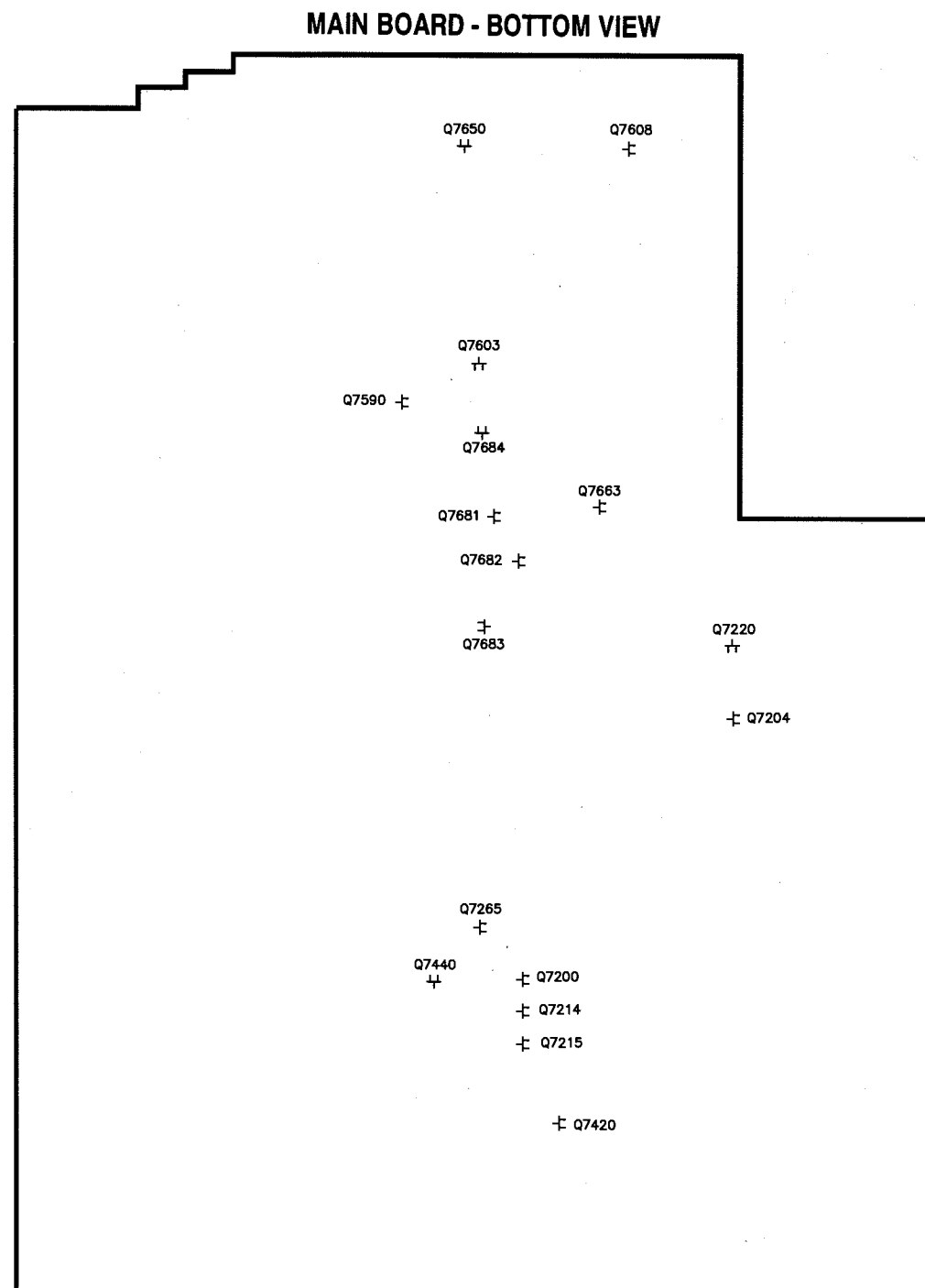
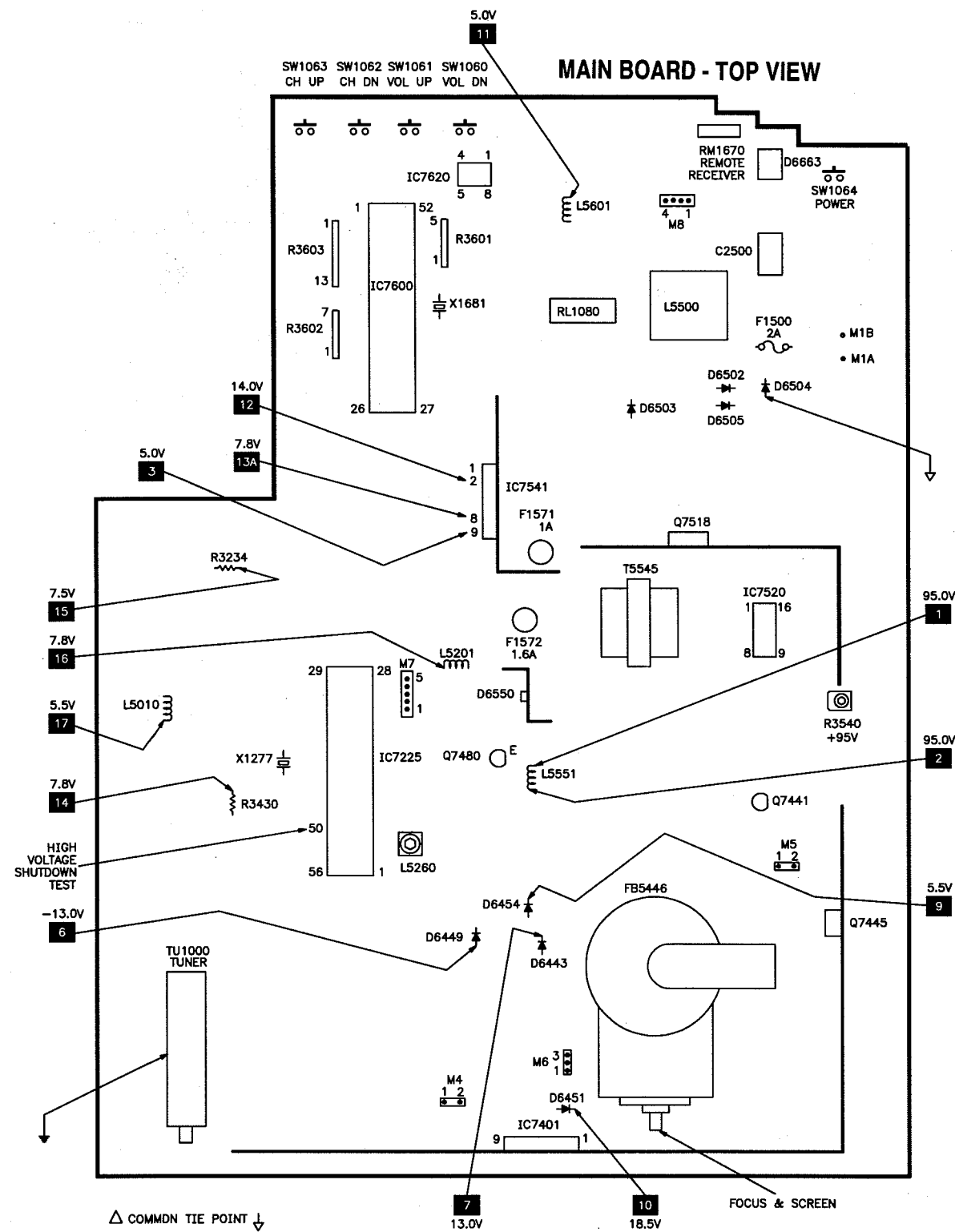
CONVERGENCE

Operate the receiver for fifteen minutes. Tune in a dot pattern. Adjust the 4 pole magnet tabs to converge the red and blue dots at the center of the screen. Adjust the 6 pole magnet tabs to converge the red/blue dots with the green dots at the center of the screen. Spread the two tabs of each set of magnets equally and opposite to converge vertically, and rotate both tabs in the same direction to converge horizontally. Since the 4 and 6 pole magnets interact, repeat the adjustment until center convergence is correct. Tune in a crosshatch pattern. Remove the rubber wedges between the deflection yoke and the CRT. Tilt the deflection yoke up or down to converge the vertical lines at the top and bottom of the screen, and the horizontal lines at the right and left sides of the screen. Tilt the deflection yoke right or left to converge the horizontal lines at the top and bottom of the screen, and vertical lines at the right and left sides of the screen. Repeat convergence procedure as necessary to obtain best overall convergence.

CRT NECK ASSEMBLY



## PLACEMENT CHART





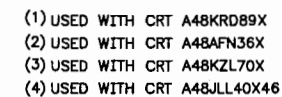
A.

B

C.

D

F



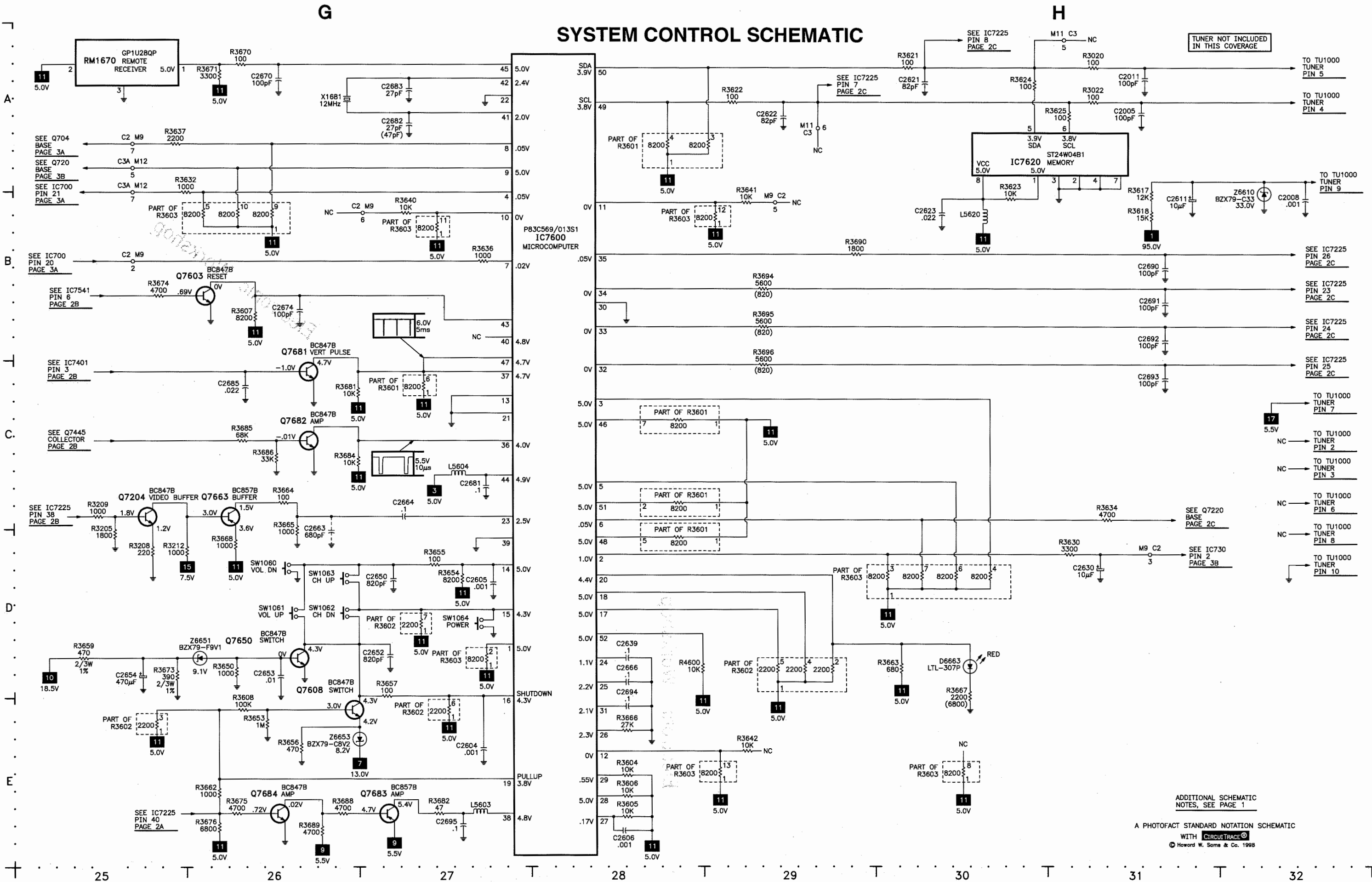
ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 1

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH **CIRCUIT TRACE®**  
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**F**

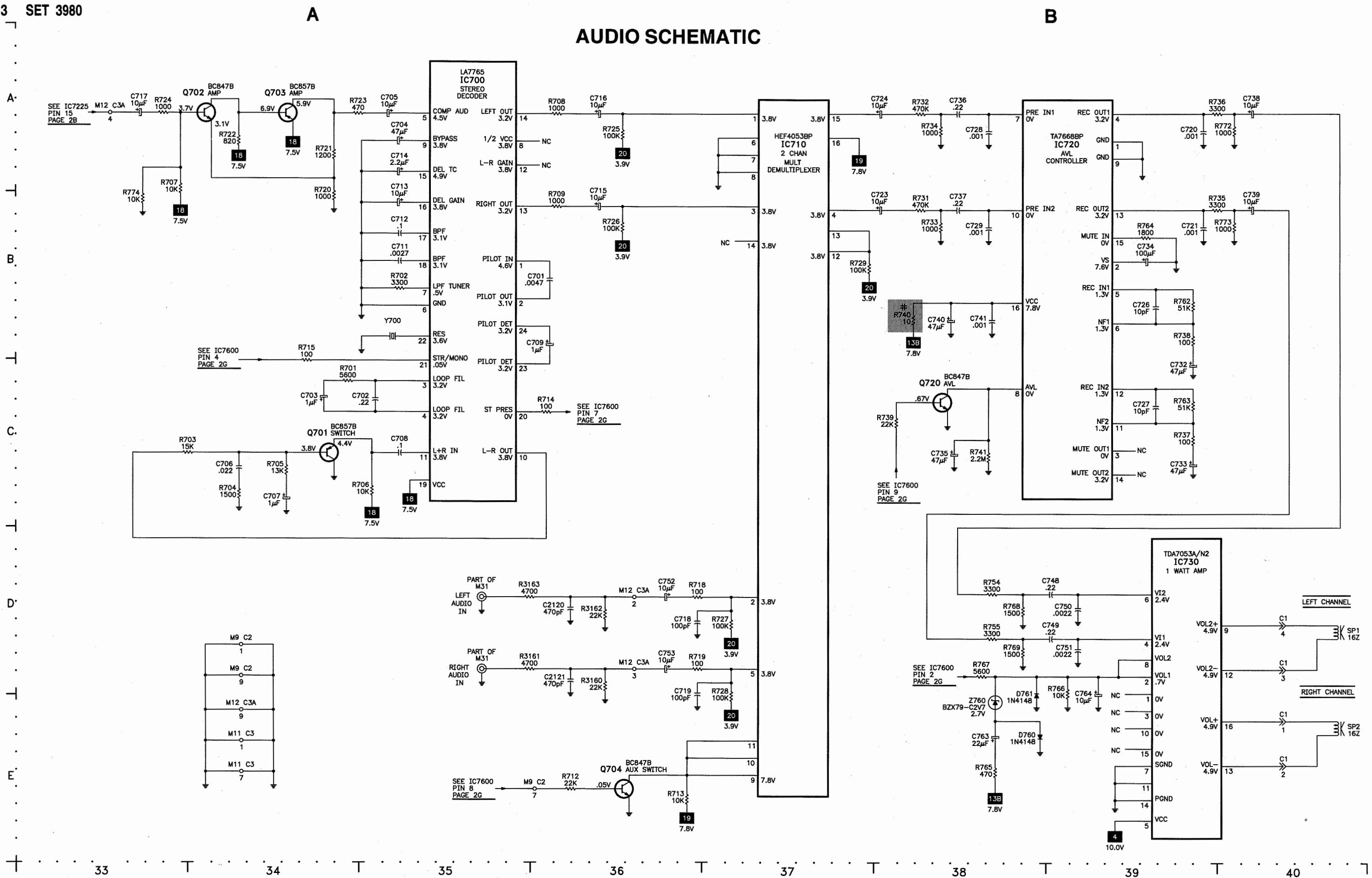


# SYSTEM CONTROL SCHEMATIC





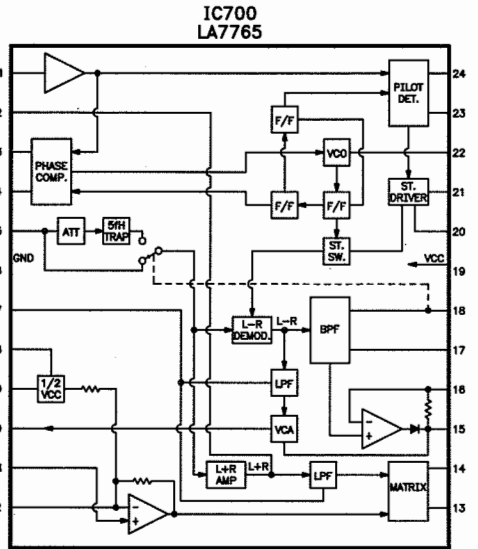
AUDIO SCHEMATIC



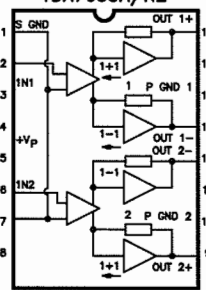
# IC FUNCTIONS

## SCHEMATIC COMPONENT LOCATION GUIDE

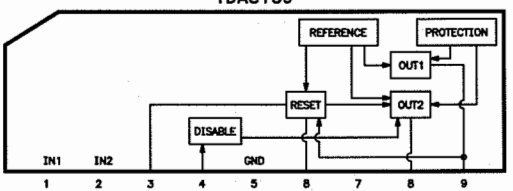
C700	C-24	C2200	C-5	C2470	D-22	C2671	B-24	IC720	A-39	Q7608	E-26	R3163	D-35	R3372	D-16	R3529	B-18	R3664	C-26
C701	B-36	C2201	C-2	C2471	D-8	C2674	B-26	IC730	D-39	Q7650	D-26	R3164	C-5	R3374	D-15	R3530	A-19	R3665	D-26
C702	C-35	C2202	C-3	C2476	D-4	C2679	B-24	IC7225	A-6	Q7663	D-26	R3165	C-5	R3401	E-7	R3532	C-18	R3666	E-28
C703	C-34	C2202	C-3	C2480	E-18	C2681	C-27	IC7225	B-2	Q7681	C-26	R3201	C-2	R3402	E-7	R3534	C-17	R3667	E-30
C704	A-35	C2203	C-2	C2485	D-5	C2682	A-27	IC7225	B-7	Q7682	C-26	R3202	B-5	R3403	D-1	R3536	C-19	R3668	D-26
C705	A-35	C2209	C-7	C2487	D-4	C2683	A-27	IC7225	D-2	Q7683	E-27	R3203	C-1	R3404	D-4	R3537	B-17	R3670	A-26
C706	C-34	C2211	C-6	C2500	A-17	C2685	C-26	IC7401	D-5	Q7684	E-26	R3204	C-2	R3406	D-7	R3538	C-18	R3671	A-26
C707	C-34	C2212	C-6	C2502	A-19	C2690	B-31	IC7520	B-18	R700	C-23	R3205	D-25	R3407	D-7	R3539	C-17	R3673	D-25
C708	C-35	C2213	B-5	C2504	A-18	C2691	B-31	IC7541	B-23	R701	C-34	R3206	B-4	R3410	D-2	R3540	C-17	R3674	B-25
C709	B-36	C2215	C-24	C2505	A-19	C2692	B-31	IC7600	B-28	R702	B-35	R3207	A-4	R3411	E-4	R3541	C-19	R3675	E-26
C710	C-24	C2217	D-23	C2508	A-20	C2693	C-31	IC7620	A-30	R703	C-33	R3208	D-25	R3412	D-5	R3542	A-17	R3676	E-26
C711	B-35	C2221	B-7	C2510	B-20	C2694	E-28	L5010	E-22	R704	C-34	R3209	D-25	R3413	D-6	R3543	A-20	R3681	C-26
C712	B-35	C2222	B-8	C2517	B-20	C2695	E-27	L5010	E-22	R705	C-34	R3210	B-4	R3415	D-4	R3545	B-19	R3682	E-27
C713	B-35	C2223	B-8	C2518	C-20	D760	E-38	L5101	A-5	R706	C-35	R3211	B-5	R3417	D-4	R3546	B-20	R3684	C-26
C714	B-35	C2224	C-24	C2519	C-20	D761	E-38	L5201	D-23	R707	B-33	R3212	D-25	R3418	D-6	R3552	B-23	R3685	C-26
C715	B-36	C2225	B-8	C2520	B-17	D6265	D-11	L5203	C-23	R708	A-36	R3214	B-3	R3419	D-2	R3554	C-23	R3686	C-26
C716	A-36	C2226	C-10	C2521	C-19	D6311	A-14	L5206	B-4	R709	B-36	R3215	A-3	R3420	E-1	R3555	A-21	R3688	E-26
C717	A-33	C2260	C-10	C2522	C-19	D6321	C-14	L5260	B-2	R712	E-36	R3216	A-4	R3421	E-1	R3565	B-23	R3689	E-26
C718	D-36	C2261	D-11	C2524	B-19	D6331	D-14	L5370	D-16	R713	E-36	R3217	B-4	R3422	E-1	R3570	D-21	R3690	B-29
C719	E-36	C2272	C-8	C2529	B-18	D6332	B-14	L5442	E-5	R714	C-36	R3218	B-10	R3423	E-2	R3595	D-19	R3694	B-29
C720	A-39	C2273	C-8	C2530	C-19	D6341	D-12	L5451	C-8	R715	C-34	R3220	C-10	R3427	E-3	R3596	D-19	R3695	B-29
C721	B-39	C2277	C-7	C2531	C-18	D6420	E-1	L5456	E-6	R716	C-24	R3221	C-10	R3428	D-3	R3601	A-28	R3696	C-29
C722	C-24	C2283	B-10	C2532	C-18	D6421	E-1	L5457	E-6	R717	C-23	R3223	C-9	R3430	C-3	R3601	C-27	R4600	D-28
C723	B-37	C2284	B-9	C2533	C-17	D6440	E-5	L5458	E-5	R718	D-36	R3224	C-9	R3433	D-1	R3601	C-27	RL1080	A-18
C724	A-37	C2285	B-9	C2534	C-18	D6441	E-5	L5500	A-18	R719	D-36	R3225	A-11	R3434	D-2	R3601	C-28	RL1080	D-20
C726	B-39	C2313	A-12	C2537	C-18	D6443	D-19	L5540	B-17	R720	B-34	R3227	C-11	R3435	E-2	R3601	D-28	RM1670	A-25
C727	C-39	C2323	D-12	C2540	B-17	D6445	E-6	L5551	A-23	R721	A-34	R3229	B-11	R3436	D-3	R3602	D-27	SP1	D-40
C728	A-38	C2333	B-12	C2541	C-19	D6449	D-18	L5553	B-22	R722	A-34	R3230	B-8	R3437	D-3	R3602	D-29	SP2	E-40
C729	B-38	C2341	D-23	C2545	B-19	D6451	E-21	L5571	C-22	R723	A-34	R3231	B-7	R3440	E-3	R3602	E-25	SW1060	D-26
C730	C-24	C2342	D-24	C2550	A-22	D6454	E-20	L5601	B-23	R724	A-33	R3234	C-23	R3441	E-3	R3602	E-27	SW1061	D-26
C731	C-24	C2373	D-15	C2551	A-22	D6455	E-8	L5603	E-27	R725	A-36	R3255	B-9	R3442	E-5	R3603	B-26	SW1062	D-26
C732	C-39	C2403	D-1	C2552	A-21	D6456	E-8	L5604	C-27	R726	B-36	R3256	B-9	R3443	E-4	R3603	B-27	SW1063	D-26
C733	C-39	C2406	D-2	C2553	B-22	D6461	E-6	L5620	B-30	R727	D-37	R3257	B-10	R3444	E-4	R3603	B-28	SW1064	D-27
C734	B-39	C2409	D-1	C2554	B-22	D6464	E-7	M31	C-5	R728	E-37	R3265	D-11	R3445	E-5	R3603	D-27	T5446	C-9
C735	C-38	C2410	D-1	C2555	B-23	D6468	D-6	M31	D-35	R729	B-37	R3266	D-10	R3446	E-5	R3603	D-30	T5545	A-21
C736	A-38	C2414	D-6	C2556	D-23	D6470	D-22	M31	D-35	R730	C-23	R3267	D-11	R3447	E-5	R3603	E-28	TH3503	B-18
C737	B-38	C2420	E-1	C2560	B-22	D6481	E-18	M3505	B-17	R731	B-38	R3273	C-8	R3448	A-23	R3603	E-30	V1010	C-16
C738	A-40	C2421	E-1	C2561	B-22	D6502	A-19	P1500	A-17	R732	A-38	R3280	D-12	R3449	D-18	R3604	E-28	VA3500	A-17
C739	B-40	C2425	E-3	C2562	B-24	D6503	A-19	Q701	C-34	R733	B-38	R3311	A-12	R3450	E-20	R3605	E-28	X1015	B-1
C740	B-38	C2430	C-24	C2563	B-23	D6504	A-19	Q702	A-34	R734	A-38	R3312	B-12	R3451	D-19	R3606	E-28	X1104	A-4
C741	B-38	C2434	D-2	C2570	C-22	D6505	A-19	Q703	A-34	R735	B-39	R3313	B-12	R3452	E-21	R3607	B-26	X1207	B-4
C748	D-38	C2436	D-3	C2571	D-22	D6507	C-20	Q704	E-36	R736	A-39	R3314	A-12	R3456	E-7	R3608	E-26	X1277	C-7
C749	D-38	C2437	D-3	C2572	D-21	D6508	C-20	Q720	C-38	R737	C-39	R3315	B-14	R3457	E-7	R3617	B-31	X1681	A-26
C750	D-39	C2440	E-3	C2585	D-20	D6537	C-19	Q7200	B-5	R738	B-39	R3316	A-13	R3458	E-7	R3618	B-31	Y700	B-35
C751	D-39	C2442	E-5	C2586	D-19	D6540	B-17	Q7204	D-25	R739	C-38	R3317	A-14	R3459	E-5	R3621	A-30	Z760	E-38
C752	D-36	C2443	E-20	C2601	B-24	D6550	A-22	Q7214	B-4	R740	B-38	R3321	D-12	R3460	D-10	R3622	A-29	Z6109	C-5
C753	D-36	C2444	E-5	C2602	B-23	D6560	B-22	Q7215	A-4	R741	C-38	R3322	D-12	R3461	E-7	R3623	B-30	Z6347	D-14
C760	D-24	C2445	E-6	C2603	B-24	D6570	C-22	Q7220	C-9	R754	D-38	R3323	D-12	R3462	E-7	R3624	A-30	Z6444	E-4
C762	D-24	C2448	A-23	C2604	E-27	D6663	D-30	Q7265	D-11	R755	D-38	R3324	C-12	R3470	D-22	R3625	A-31	Z6480	E-19
C763	E-38	C2449	E-8	C2605	D-27	DG200	A-18	Q7301	A-12	R762	B-39	R3325	D-14	R3471	D-8	R3630	D-31	Z6610	B-32
C764	E-39	C2450	D-8	C2606	E-28	F1500	A-17	Q7302	C-12	R763	C-39	R3326	C-13	R3480	E-18	R3632	B-25	Z6651	D-26
C2002	E-24	C2451	E-5	C2607	B-24	F1571	C-22	Q7303	B-12	R764	B-39	R3327	C-14	R3481	E-19	R3634	D-31	Z6653	E-26
C2005	A-31	C2452	E-20	C2611	B-31	F1572	B-22	Q7304	B-14	R765	E-38	R3331	B-12	R3501	A-17	R3636	B-27		
C2008	B-32	C2453	D-24	C2621	A-30	FB5446	D-17	Q7305	A-13	R766	E-39	R3332	C-12	R3502	A-17	R3637	A-25		
C2010	E-23	C2455	E-22	C2622	A-29	FB5516	B-20	Q7306	D-14	R767	D-38	R3333	C-12	R3506	B-19	R3640	B-27		
C2011	A-31	C2456	D-7	C2623	B-30	FB5517	C-18	Q7307	C-13	R768	D-38	R3334	B-12	R3507	A-20	R3641	B-29		
C2016	C-1	C2460	D-11	C2630	D-31	FB5518	B-19	Q7308	C-14	R769	D-38	R3335	C-14	R3510	A-19	R3642	E-29		
C2108	B-6	C2461	E-7	C2639	D-28	FB5519	B-19	Q7309	B-13	R772	A-40	R3336	B-13	R3512	B-18	R3650	D-26		
C2110	D-23	C2462	E-7	C2650	D-27	FB5550	A-22	Q7420	E-1	R773	B-40	R3337	B-14	R3513	B-18	R3653	E-26		
C2117	A-4	C2463	D-6	C2652	D-27	FB5552	A-22	Q7440	E-4	R774	B-33	R3338	B-11	R3517	B-20	R3654	D-27		
C2120	D-36	C2464	E-20	C2653	D-26	FB5554	A-22	Q7441	E-4	R3020	A-31	R3339	C-11	R3518	C-20	R3655	D-27		
C2121	D-36	C2465	D-5	C2654	D-25	FB5570	C-21	Q7445	E-6	R3022	A-31	R3340	A-11	R3520	B-17	R3656	E-26		
C2128	B-6	C2466	D-4	C2663	D-26	FB5572	D-21	Q7480	E-19	R3050	B-1	R3341	D-22	R3521	C-19	R3657	E-27		
C2131	A-5	C2467	D-4	C2664	D-27	FB5573	B-21	Q7518	B-20	R3160	D-36	R3342	D-23	R3525	B-19	R3659	D-25		
C2132	A-5	C2468	D-23	C2666	D-28	IC700	A-35	Q7590	D-19	R3161	D-35	R3347	D-14	R3528	B-19	R3662	E-26		
C2144	B-7	C2469	E-7	C2670	A-26	IC710	A-37	Q7603	B-26	R3162	D-36	R3371	D-16			R3663	D-30		



IC730  
TDA7053A/N2



IC7541  
TDA8139



PARTS LIST

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.

- Custom Components Corporation (Chek-A-Color)
- NTE Electronics, Inc. (NTE)
- Philips ECG Company (ECG)
- Sencore, Inc.
- Terrell & Nobis (TNI Electronics)
- Thomson Consumer Electronics, Inc. (SK, TCE)

SEMICONDUCTORS

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
D760, 61	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6265	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6311, 21	BAV21	4822 130 30842	NTE177	ECG177	SK9091
D6331	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6332	BAV21	4822 130 30842	NTE177	ECG177	SK9091
D6341	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6420, 21	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6440	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6441	EPG20D	4835 130 80931	-	-	-
D6443	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6445	BYD33M	4835 130 37012	-	-	SK5020
D6449	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6451	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6454	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6455, 56	BYD33J	4835 130 37094	NTE580	ECG580	SK5036
D6461, 64	1N4148	4835 130 37048	NTE519	ECG519	SK3100
D6468	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6470	BYD33J	4835 130 37094	NTE580	ECG580	SK5036
D6481	BYD33D	4835 130 37009	NTE552	ECG552	SK9000
D6502 Thru					
D6505	1N5062	4822 130 41275	NTE125	ECG125	SK3081
D6507, 08	1N5062	4822 130 41275	NTE125	ECG125	SK3081
D6537, 40	BAV21	4822 130 30842	NTE177	ECG177	SK9091
D6550	BYM36C	4835 130 37773	-	-	-
D6560, 70	BYV27-200	4835 130 37463	NTE588	ECG588	SK9938
D6663	LTL-307P	4835 130 97096	-	-	-
IC700	LA7765	4835 209 88533	-	-	-
IC710	HEF4053BP	4835 209 17033	NTE4053B	ECG4053B	SK4053B
IC720	TA7668BP	4835 209 88534	-	-	SK7679
IC730	TDA7053A/N2	4822 209 13706	-	-	-
IC7225	TDA8373C/N3	4835 209 88544	-	-	-
IC7401	TDA9302H	4835 209 88531	-	-	-
# IC7520	MC44603A	4835 209 88537	-	-	-
IC7541	TDA8139	4835 209 88538	-	-	-
IC7600	P83C569/013S1	4835 209 88572	-	-	-
IC7620	ST24W04B1	4835 209 88532	-	-	-
Q701	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q702	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q703	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q704, 20	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7200, 04	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7214, 15	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7220	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7265	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q7301, 02, 03	BF422	4822 130 41782	NTE399	ECG399	SK9352
Q7304	BF423	4835 130 47004	NTE397	ECG397	SK3528
Q7305	BF422	4822 130 41782	NTE399	ECG399	SK9352
Q7306	BF423	4835 130 47004	NTE397	ECG397	SK3528
Q7307	BF422	4822 130 41782	NTE399	ECG399	SK9352
Q7308	BF423	4835 130 47004	NTE397	ECG397	SK3528
Q7309	BF422	4822 130 41782	NTE399	ECG399	SK9352
Q7420	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q7440	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7441	BC368	4835 130 47382	NTE297	ECG297	SK3449
Q7445	BUT11AX	4835 130 48117	-	-	-
Q7480	BC368	4835 130 47382	NTE297	ECG297	SK3449
Q7518	TP6NA60FI	4835 130 48109	-	ECG2947	-
Q7590	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q7603, 08, 50	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099

# For SAFETY use only equivalent replacement part.

SEMICONDUCTORS continued

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q7663	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q7681, 82	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Q7683	BC857B	5322 130 60508	NTE2409	ECG2409	SK10100
Q7684	BC847B	4822 130 60511	NTE2408	ECG2408	SK10099
Z760	BZX79-C2V7	4835 130 37909	-	-	-
Z6109	BZX79-C8V2	4835 130 37503	NTE5016A	ECG5016A	SK8A2
Z6347	BZX79-C8V2	4835 130 37503	NTE5016A	ECG5016A	SK8A2
Z6444	BZX79-C39	4835 130 37911	NTE5038A	ECG5038A	SK39A
Z6480	BZX79-C10	4835 130 37014	NTE5019A	ECG5019A	SK10A
Z6610	BZX79-C33	4835 130 37904	NTE5036A	ECG5036A	SK33A
Z6651	BZX79-F9V1	0053 023 90274	-	-	-
Z6653	BZX79-C8V2	4835 130 37503	NTE5016A	ECG5016A	SK8A2

CAPACITORS & ELECTROLYTICS

Item No.	Rating	Mfr. Part No.
# C2373	.033 630V	4835 121 47605
# C2445 (1)	.01 1.4kV	-
# C2445 (1)	.01 1.6kV	4835 121 47611
# C2445 (2)	.0082 1.6kV	4835 121 47614
# C2445 (3)	.0091 1.6kV	4835 121 47654
# C2448	47µF 160V	4835 124 47713
# C2449 (1)	220pF 10% 1kV	4835 122 47661
# C2449 (3)	330pF 10% 1kV	4835 122 47662
# C2449 (4)	820pF 10% 1kV	4835 122 47625
# C2449 (5)	.001 10% 1kV	4835 122 47373
C2461	27pF 5% 50V NPO	4835 122 47607
C2462	.0047 2kV	4835 122 47635
C2469	390pF 2kV	4835 122 47628
# C2471	.022 50V	4835 122 47617
# C2500	.47 250V	4835 121 47569
C2502, 04, 05	.0022 2kV	4835 122 47624
C2510	470pF 1kV	4835 122 47459
C2518	330pF 10% 1kV	4835 122 47632
# C2541	.0047 50V	4835 121 47592
# C2545	.0047 250V	4835 121 97023
C2550	.001 10% 1kV	4835 122 47663

# For SAFETY use only equivalent replacement part.

- (1) Used with CRT A48KRD89X.
- (2) Used with CRT A48AFN36X and A48KZL70X.
- (3) Used with CRT A48JLL40X46.
- (4) Used with CRT A48AFN36X.
- (5) Used with CRT A48KZL70X.

CABINET PARTS

Item	Mfr. Part No.
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MODEL PS1955C121/22/25/27

Button Power	4835 410 17019
Button Function	4835 410 17021
Cabinet Back	4835 432 97686
Cabinet Front	4835 430 27138

MODEL XS1955C121/25

Button Power	4835 410 17031
Button Function	4835 410 17021
Cabinet Back	4835 432 97686
Cabinet Front	4835 430 27138

MODEL 19PS54C121/22/25/27

Button Power	4835 410 17031
Button Function	4835 410 17021
Cabinet Back	4835 432 97687
Cabinet Front	4835 430 27138

PARTS LIST continued

CONTROLS & RESISTORS

Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
# R700	10 5% 1/3W	4822 111 30508	-
# R730	1 5% 1/3W	4835 110 47004	-
# R740	10 5% 1/3W	4822 111 30508	-
# R3234	2.2 5% 1/3W	4822 052 10228	-
# R3314	18K 5% 3W	4835 116 67285	3W318
	15K 5% 3W	-	3W315
# R3315	330 5% 1/2W	4835 116 57671	HW133
# R3316	220 5% 1/2W	4835 116 57669	HW122
# R3324	18K 5% 3W	4835 116 67285	3W318
	15K 5% 3W	-	3W315
# R3325	330 5% 1/2W	4835 116 57671	HW133
# R3326	220 5% 1/2W	4835 116 57669	HW122
# R3334	18K 5% 3W	4835 116 67285	3W318
	15K 5% 3W	-	3W315
# R3335	330 5% 1/2W	4835 116 57671	HW133
# R3336	220 5% 1/2W	4835 116 57669	HW122
# R3341	10 5% 1/2W	4835 116 57097	HW010
# R3371, 72	1 5% 1/3W	4822 111 30483	-
# R3374	1500 5% 1/2W	4835 110 47034	HW215
R3404, 11	2200 1% 2/3W	4835 116 57676	-
# R3413	1.5 1/3W	4835 116 57664	-
# R3430	4.7 1/3W	4835 116 57667	-
# R3444	10K 5% 2W	4835 116 67241	2W310
R3446	1500 1% 2/3W	4835 116 57675	-
R3448	5.6 5% 5W Wirewound	2322 251 41568	-
# R3449	1 5% 1/2W	4835 110 27012	HW1D0
# R3450	3.9 1/3W	4835 116 57666	-
# R3451	1 5% 1/2W	-	HW1D0
	2.2 5% 1/2W	4835 116 57748	HW2D2
# R3452	1 5% 1/3W	4822 111 30483	-
R3459	1200 1% 2/3W	4835 116 57674	-
# R3470	4.7 5% 1/2W	4835 110 47023	HW4D7
# R3471	33 5% 2W	4835 116 67237	2W033
# R3480	10 5% 1/2W	4835 116 57097	HW010
# R3481	220 5% 1W	4835 116 57603	1W122
# R3502	4.7M 5% 1/2W	4835 116 57009	HW547
# R3506	2.2 5% 5W	4835 112 27037	5W2D2
# R3507, 08	220 5% 3W	4835 116 67246	3W122
# R3510	22K 5% 3W	4835 116 67249	3W322
# R3518	.22 10% 3W	4835 116 67242	-
R3540	4700 +95V	4835 103 17004	-
# R3545	2.2M 5% 1/2W	4835 116 57653	HW522
# R3546	4.7M 5% 1/2W	4835 116 57009	HW547
# R3555	68 5% 3W	4835 116 67245	3W068
R3601	8200 1/8W X 6 Pack	4835 111 97047	-
R3602	2200 1/8W X 6 Pack	4835 111 97049	-
R3603	8200 1/8W X 12 Pack	4835 111 97048	-
R3659	470 1% 2/3W	4835 116 57681	-
R3673	430 1% 2/3W	4835 116 57679	-
TH3503	12 Cold PTC	4835 116 47001	-
# VA3500	275V Varistor	4835 130 87143	-

# For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS

Item No.	Function/Rating	Mfr. Part No.
# DG200	Degaussing	4835 157 97093
FB5516 Thru		
FB5519	Coil (Ferrite Bead)	4835 157 67078
FB5550	Coil (Ferrite Bead)	4835 157 67078
FB5552, 54	Coil (Ferrite Bead)	4835 157 67085
FB5570, 72, 73	Coil (Ferrite Bead)	4835 157 67078
# L405 (1)	Yoke Horiz 1.4mH Vert 24.5mH	4835 150 17145
# L405 (2)	Yoke	4835 150 17144
# L405 (3)	Yoke	4835 150 17146
# L405 (4)	Yoke	4835 150 17143
L5010	.68µH	4835 157 67058
L5101	22µH	4835 157 67076
L5201	100µH	4835 157 67071
L5203	22µH	4835 157 67069
L5206	8.2µH	4835 157 67073
L5260	-	4835 157 67082
L5370 (5)	-	4835 157 67061
L5370 (6)	-	4835 157 67087
L5442	4.7µH	4835 157 67065
L5451	33µH	4835 157 67055
L5456, 57, 58	33µH	4835 157 67083
L5500	Line Filter	4835 152 17011
L5540	4.7µH	4835 157 67057
L5551	27µH	4835 157 67052
L5553	10µH	4835 157 67068
L5571	10µH	4835 157 67068
L5601	6.8µH	4835 157 67066
L5603	8.2µH	4835 157 67073
L5604	6.8µH	4835 157 67066
L5620	6.8µH	4835 157 67072
# T5446 (7)	Horizontal Output	4835 140 67167
# T5545	Power	4835 140 67173

# For SAFETY use only equivalent replacement part.

- (1) Used in models PS1955C125, XS1955C125, and 19PS54C125.  
(2) Used in models PS1955C121, XS1955C121, and 19PS54C121.  
(3) Used in models PS1955C122 and 19PS54C122.  
(4) Used in models PS1955C127 and 19PS54C127.  
(5) Used with CRT A48AFN36X and A48KRD89X.  
(6) Used with CRT A48JLL40X46 and A48KZL70X.  
(7) Focus and screen controls are part of T5446.



Created with pride by the employees  
of Howard W. Sams & Company.

J. Barker, N. Beck, B. Buchanan,  
T. Clensy, G. Farrell, B. Fink,  
M. Herkless, J. Kocha, F. Malek,  
B. Medaris, R. Raus, B. Skinner

MISCELLANEOUS

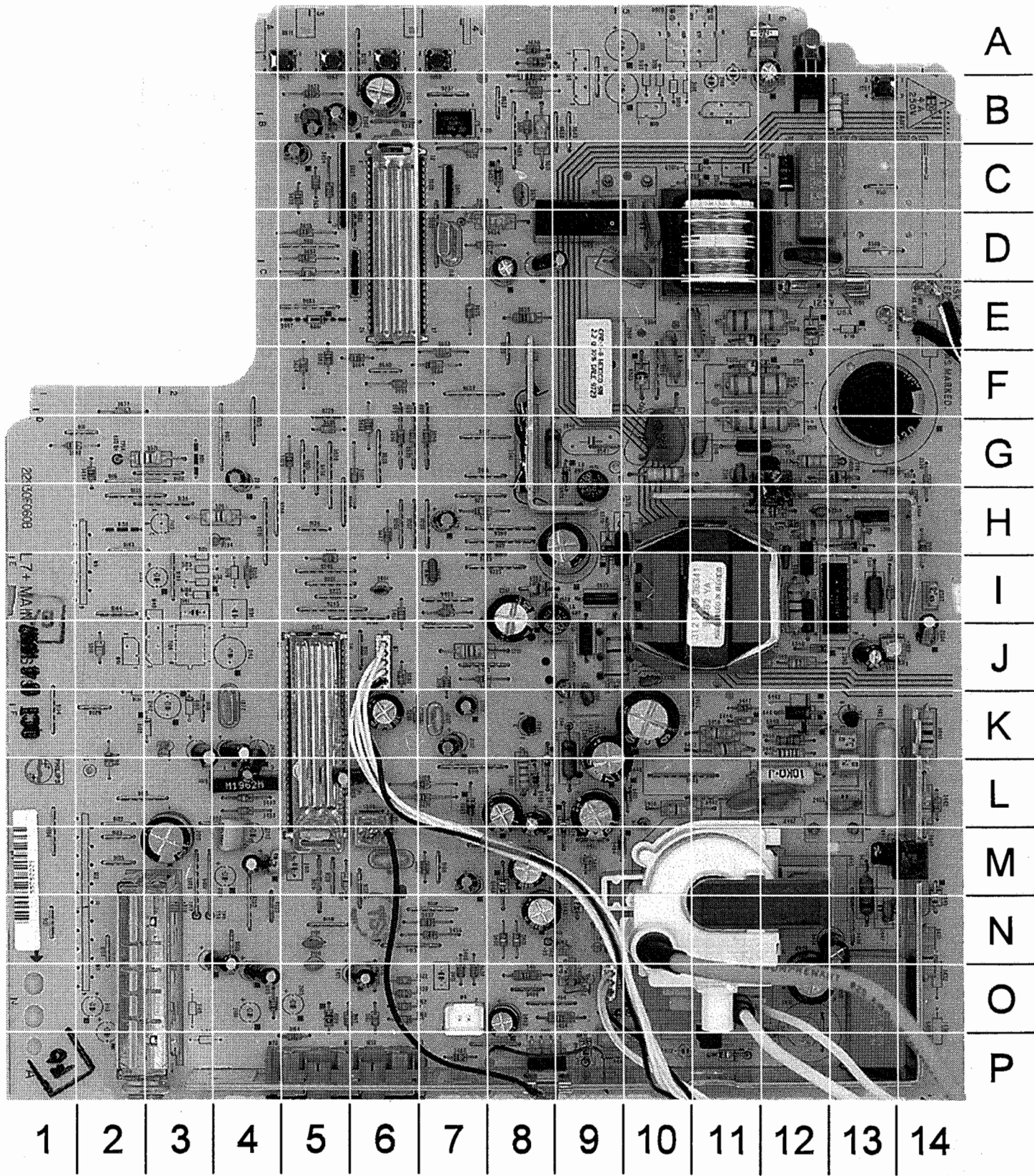
Item No.	Description	Mfr. Part No.	Notes
# F1500	Fuse	4835 253 97163	2Amp, 250V, Slow Blow
# F1571	Fuse	4835 253 97162	1Amp, 250V
# F1572	Fuse	-	1.6Amp, 250V
M31	Jack	2422 026 04699	Assembly
M3505	Surge Protector	4835 116 97013	-
# P1500	Line Cord	4835 321 17122	Polarized
# RL1080	Relay	4835 280 47043	Degaussing
RM1670	Receiver	4835 219 47286	Remote, GP1U28QP
SP1, 2	Speaker	4835 240 27026	2" X 4", 16 Ohms, 4W
SW1060	Switch	4835 280 47042	Volume Down
SW1061	Switch	4835 280 47042	Volume Up
SW1062	Switch	4835 280 47042	Channel Down
SW1063	Switch	4835 280 47042	Channel Up
SW1064	Switch	4835 280 47042	Power
TU1001 (1)	Tuner	4835 210 47096	UHF/VHF, (UV1336F)
# V1010 (2)	CRT	4835 131 27139	A48KRD89X
# V1010 (3)	CRT	4835 131 27142	A48AFN36X
# V1010 (4)	CRT	4835 131 27158	A48JLL40X46
# V1010 (5)	CRT	4835 131 27141	A48KZL70X
X1015	Filter	4835 153 97022	SAW
X1104	Filter	4835 152 17013	4.5MHz
X1207	Trap	4835 154 17001	4.5MHz
X1277	Crystal	4835 242 77276	3.58MHz
X1681	Crystal	4835 122 97106	12MHz
Y700	Resonator	4835 122 97103	Ceramic
#	Magnet (2)	4835 150 27008	Purity/Convergence
#	Magnet (6)	4835 150 27007	Purity/Convergence
	PC Board	4835 219 57654	CRT, 00APT189
	PC Board (7)	-	Main, 00EMA826
	PC Board (8)	-	Main, 00EMA825
	PC Board (9)	-	Main, 00EMA876
	PC Board (10)	-	Main, 00EMA866
	PC Board (11)	-	Main, 00EMA856
	PC Board (12)	-	Main, 00EMA875
	PC Board (13)	-	Main, 00EMA865
	PC Board (14)	-	Main, 00EMA855
	PC Board	4835 219 57637	Stereo, 00ASD039
#	Socket	4835 265 97464	CRT
	Transmitter	4835 219 17709	Remote, RC0732/17
	Wedge	4835 535 27001	Yoke Positioning (3 Used)

# For SAFETY use only equivalent replacement part.

- (1) Contact TNI Electronics for replacement; order by part number on tuner.  
(2) Used in models PS1955C125, XS1955C125, and 19PS54C125.  
(3) Used in models PS1955C121, XS1955C121, and 19PS54C121.  
(4) Used in models PS1955C122 and 19PS54C122.  
(5) Used in models PS1955C127 and 19PS54C127.  
(6) Used in models PS1955C121, PS1955C122, PS1955C127, XS1955C121, 19PS54C121, 19PS54C122, and 19PS54C127.  
(7) Used in models PS1955C125 and XS1955C125.  
(8) Used in model 19PS54C125.  
(9) Used in models PS1955C121 and XS1955C121.  
(10) Used in model PS1955C122.  
(11) Used in model PS1955C127.  
(12) Used in model 19PS54C121.  
(13) Used in model 19PS54C122.  
(14) Used in model 19PS54C127.



MAIN BOARD - TOP VIEW

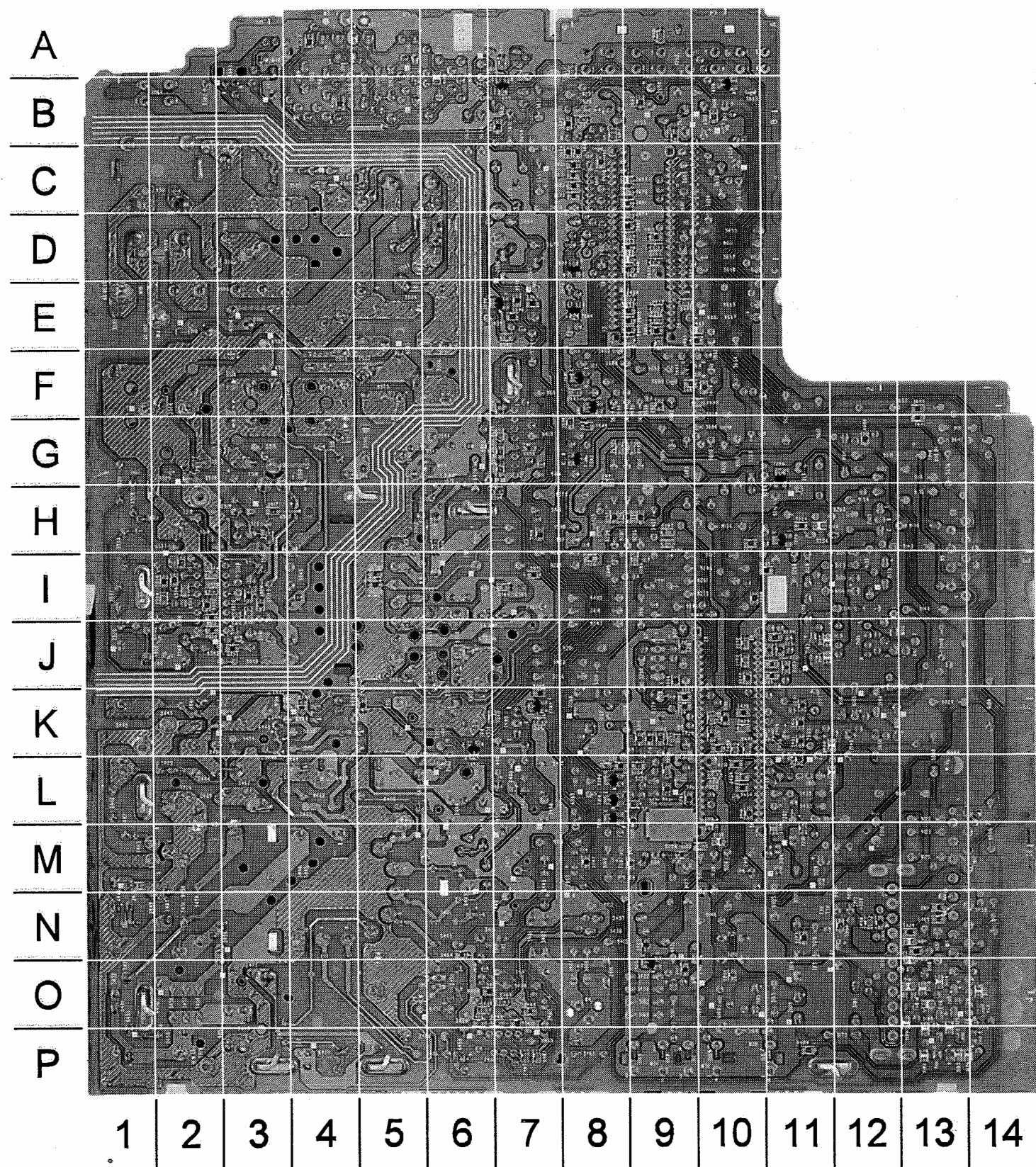


MAIN BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

C2002	N-4	C2519	H-12	D6550	J-9	M7	J-6	R3447	K-11	R3637	F-2
C2010	M-3	C2530	J-14	D6560	I-8	M9	I-2	R3449	N-9	R3642	G-1
C2016	O-4	C2531	I-13	D6570	H-9	M11	N-2	R3450	M-9	R3650	A-8
C2108	M-4	C2537	I-14	D6663	A-12	M12	M-2	R3451	N-9	R3653	B-5
C2120	O-5	C2540	J-13	F1500	E-13	M31	P-5	R3452	O-9	R3654	C-5
C2121	N-5	C2541	I-12	F1571	G-9	M3505	C-11	R3456	O-13	R3655	D-5
C2144	K-3	C2545	G-10	F1572	I-9	Q7441	K-13	R3457	O-13	R3656	B-8
C2202	M-4	C2550	K-9	FB5516	G-11	Q7445	M-14	R3458	O-13	R3657	D-5
C2211	L-6	C2551	K-10	FB5517	I-12	Q7480	K-8	R3459	K-12	R3659	E-8
C2217	K-7	C2552	J-10	FB5518	H-13	Q7518	G-12	R3460	P-7	R3662	F-5
C2224	K-6	C2561	I-8	FB5519	I-12	R3050	L-2	R3461	I-6	R3664	F-6
C2226	G-4	C2562	L-9	FB5550	J-9	R3160	O-6	R3462	L-12	R3670	C-7
C2260	K-7	C2563	D-8	FB5552	J-9	R3161	O-6	R3470	P-12	R3671	B-8
C2403	K-4	C2571	H-9	FB5554	J-9	R3162	O-6	R3471	N-14	R3673	B-8
C2410	M-4	C2586	D-8	FB5572	H-10	R3163	O-5	R3480	M-9	R3674	D-7
C2414	O-9	C2602	B-5	FB5573	I-9	R3164	P-5	R3481	L-8	R3675	E-7
C2421	O-6	C2611	B-5	IC7225	K-5	R3165	O-4	R3501	C-12	R3682	G-6
C2425	H-7	C2630	C-5	IC7401	P-8	R3207	M-7	R3502	B-13	R3684	F-7
C2430	L-4	C2654	B-6	IC7520	I-13	R3208	I-4	R3506	F-9	R3685	G-6
C2440	I-7	C2671	A-12	IC7541	G-8	R3210	J-7	R3507	F-12	R3686	G-5
C2443	N-8	C2679	C-8	IC7600	D-6	R3220	L-7	R3508	G-12	R3690	F-6
C2444	L-13	D6265	L-7	IC7620	B-7	R3221	L-7	R3510	E-11	R3694	G-7
C2445	L-13	D6420	G-9	L5010	J-2	R3223	G-5	R3518	H-13	R3695	G-6
C2448	L-9	D6421	O-6	L5101	M-5	R3234	H-4	R3521	I-12	R3696	G-6
C2449	N-13	D6440	K-12	L5201	J-7	R3266	J-7	R3525	H-12	RL1080	D-9
C2450	O-13	D6441	K-12	L5203	H-4	R3280	J-6	R3528	H-14	RM1670	A-12
C2451	K-13	D6443	N-9	L5206	K-6	R3401	N-8	R3529	G-13	SW1060	A-7
C2452	L-8	D6445	N-14	L5260	M-6	R3402	N-8	R3530	G-14	SW1061	A-6
C2453	M-8	D6449	M-8	L5442	L-14	R3404	O-9	R3538	H-13	SW1062	A-5
C2455	M-7	D6451	O-10	L5451	M-13	R3406	O-7	R3539	I-13	SW1063	A-5
C2456	N-13	D6454	M-9	L5456	L-10	R3407	O-7	R3540	J-13	SW1064	B-13
C2460	P-9	D6455	P-14	L5457	K-11	R3411	O-8	R3541	I-12	T5446	N-11
C2461	I-6	D6456	O-13	L5458	K-11	R3412	H-7	R3543	G-12	T5545	I-11
C2462	L-12	D6461	L-10	L5500	D-11	R3413	N-9	R3545	G-10	TH3503	D-10
C2463	O-8	D6464	M-9	L5540	J-12	R3420	O-6	R3546	G-10	VA3500	D-12
C2469	L-13	D6468	P-9	L5551	L-9	R3422	O-6	R3555	J-9	X1015	L-4
C2470	O-12	D6470	P-11	L5553	G-8	R3427	H-6	R3601	C-7	X1104	M-6
C2471	N-14	D6481	L-8	L5571	G-3	R3430	K-3	R3602	D-6	X1207	K-7
C2480	L-8	D6502	E-11	L5601	B-8	R3433	L-4	R3603	C-5	X1277	K-4
C2500	C-12	D6503	F-10	L5603	F-7	R3435	L-4	R3608	D-5	X1681	D-7
C2502	F-10	D6504	E-12	L5604	D-8	R3436	N-7	R3617	I-5	Z6109	O-5
C2504	D-10	D6505	F-11	L5620	C-7	R3437	N-7	R3618	I-7	Z6444	K-11
C2505	E-11	D6507	H-12	M2	C-10	R3442	L-14	R3630	C-5	Z6480	L-8
C2508	F-13	D6508	G-13	M4	O-7	R3444	L-12	R3632	C-5	Z6610	B-5
C2510	G-11	D6537	H-13	M5	M-13	R3445	K-14	R3634	F-5	Z6651	A-8
C2518	G-11	D6540	J-12	M6	O-9	R3446	K-12	R3636	G-2	Z6653	C-8



MAIN BOARD - BOTTOM VIEW



MAIN BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE

C2005	N-13	C2437	K-10	C2605	D-9	Q7420	O-9	R3229	K-9	R3552	G-7
C2008	N-12	C2442	K-4	C2606	E-9	Q7440	K-6	R3230	J-11	R3554	G-7
C2011	N-13	C2464	N-6	C2607	B-8	Q7590	E-7	R3231	J-11	R3565	E-7
C2117	M-9	C2465	O-6	C2621	C-8	Q7603	D-8	R3255	H-9	R3570	I-5
C2128	M-11	C2466	O-7	C2622	C-8	Q7608	B-10	R3256	H-9	R3595	E-7
C2131	M-9	C2467	P-7	C2623	B-8	Q7650	B-7	R3257	H-8	R3596	E-7
C2132	M-10	C2468	O-7	C2639	E-9	Q7663	F-9	R3265	K-7	R3604	E-9
C2200	O-10	C2476	O-6	C2650	A-9	Q7681	F-8	R3267	M-8	R3605	E-9
C2201	M-11	C2485	O-7	C2652	A-8	Q7682	F-8	R3273	J-10	R3606	E-9
C2203	L-9	C2487	P-7	C2653	A-7	Q7683	G-8	R3403	K-11	R3607	D-9
C2209	K-10	C2517	H-3	C2664	E-9	Q7684	E-8	R3410	L-10	R3621	C-8
C2212	L-10	C2520	J-2	C2666	E-9	R3020	N-13	R3415	O-7	R3622	C-8
C2213	K-9	C2521	I-3	C2670	C-9	R3022	N-13	R3417	O-6	R3623	B-8
C2215	K-10	C2522	I-3	C2674	D-9	R3201	L-9	R3418	H-7	R3624	C-8
C2221	J-11	C2524	I-2	C2681	C-9	R3202	K-9	R3419	K-11	R3625	C-8
C2222	J-11	C2529	I-3	C2682	D-9	R3203	N-11	R3421	O-9	R3640	F-13
C2223	J-11	C2532	I-2	C2683	D-9	R3204	N-12	R3423	N-9	R3641	G-13
C2225	J-11	C2533	I-2	C2685	F-8	R3205	I-11	R3428	K-10	R3663	B-7
C2261	K-7	C2534	I-2	C2690	F-10	R3206	L-9	R3434	L-10	R3665	E-10
C2272	J-10	C2553	G-7	C2691	G-8	R3209	I-10	R3440	K-7	R3666	E-9
C2273	J-10	C2554	F-7	C2692	G-8	R3211	L-8	R3441	I-7	R3667	B-9
C2277	K-11	C2555	G-7	C2693	G-9	R3212	H-10	R3443	K-5	R3668	F-9
C2283	H-9	C2556	H-7	C2694	E-9	R3214	L-9	R3512	I-2	R3676	F-10
C2284	H-9	C2560	I-7	C2695	F-9	R3215	L-9	R3513	I-3	R3681	D-9
C2285	I-9	C2570	H-6	Q7200	L-8	R3216	K-9	R3517	H-3	R3688	G-8
C2406	K-11	C2572	I-5	Q7204	H-11	R3217	K-9	R3520	J-3	R3689	G-8
C2409	K-10	C2585	E-7	Q7214	L-8	R3218	J-9	R3532	I-2	R4600	C-8
C2420	I-8	C2601	B-9	Q7215	L-8	R3224	H-11	R3534	I-2		
C2434	L-10	C2603	E-9	Q7220	G-11	R3225	J-9	R3536	I-2		
C2436	K-10	C2604	D-9	Q7265	K-7	R3227	K-9	R3537	I-2		

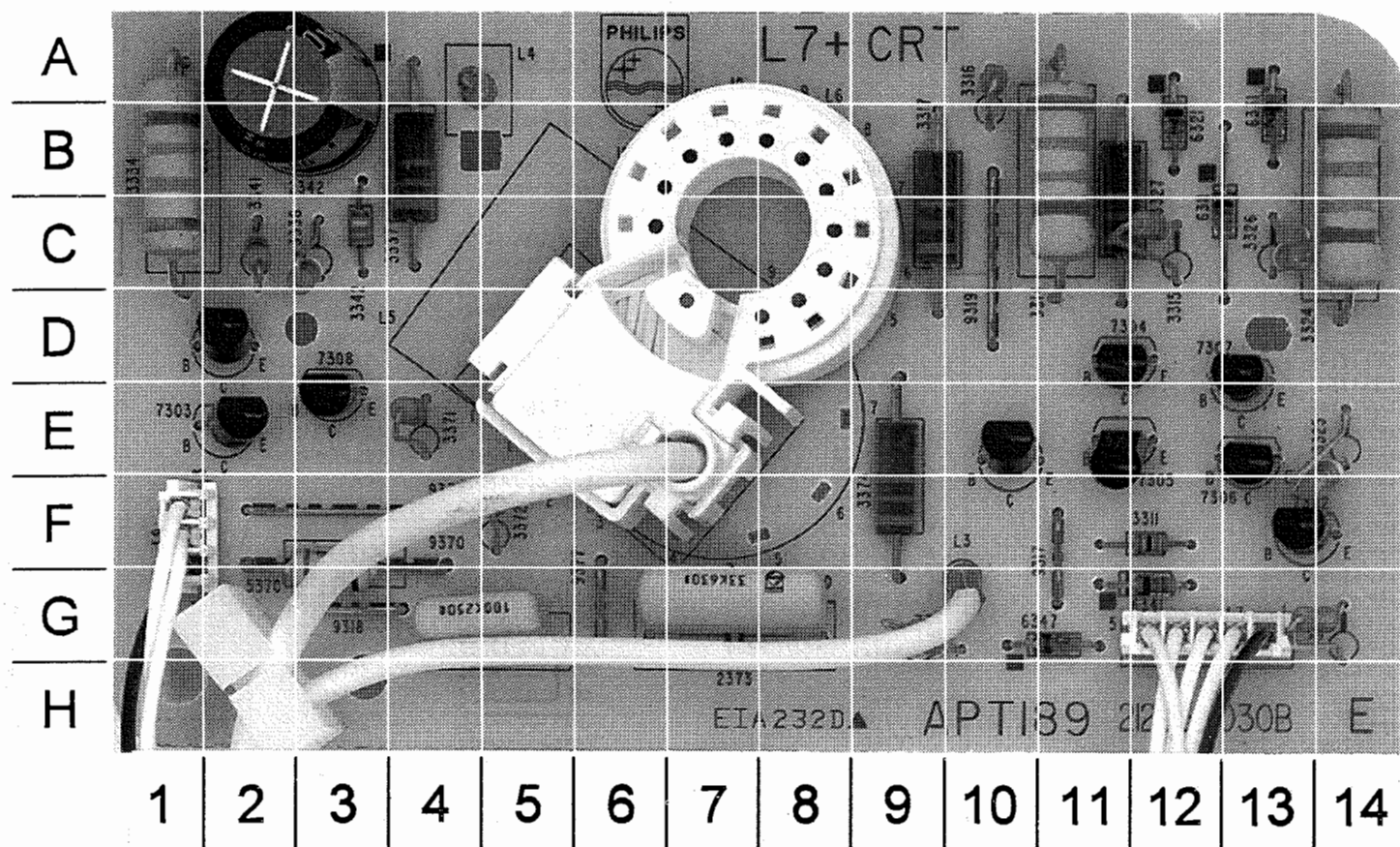
TEST EQUIPMENT

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



## CRT BOARD - TOP VIEW

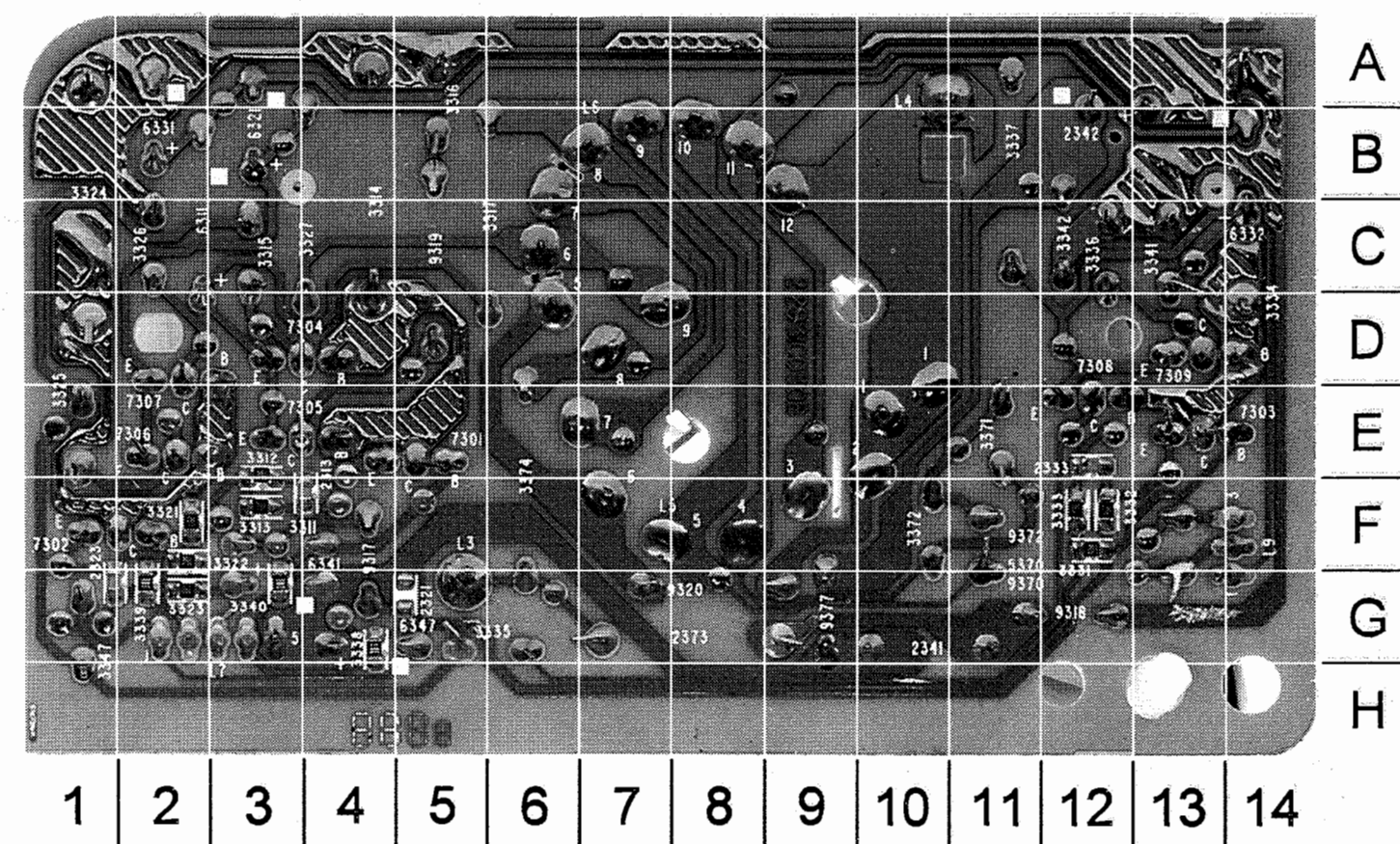


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### CRT BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

C2341	G-4	L9	F-1	R3311	F-12	R3336	C-3
C2342	A-2	L5370	G-3	R3314	B-11	R3337	B-4
C2373	G-7	Q7301	E-10	R3315	C-12	R3341	C-2
D6311	C-13	Q7302	F-13	R3316	A-10	R3342	C-3
D6321	B-12	Q7303	E-2	R3317	C-9	R3347	G-14
D6331	B-13	Q7304	D-11	R3324	B-14	R3371	E-4
D6332	B-1	Q7305	E-11	R3325	E-14	R3372	F-5
D6341	G-12	Q7306	E-13	R3326	C-13	R3374	E-9
L3	G-10	Q7307	D-13	R3327	B-11	Z6347	G-11
L4	A-4	Q7308	E-3	R3334	B-1		
L7	G-12	Q7309	D-2	R3335	G-9		

### CRT BOARD - BOTTOM VIEW

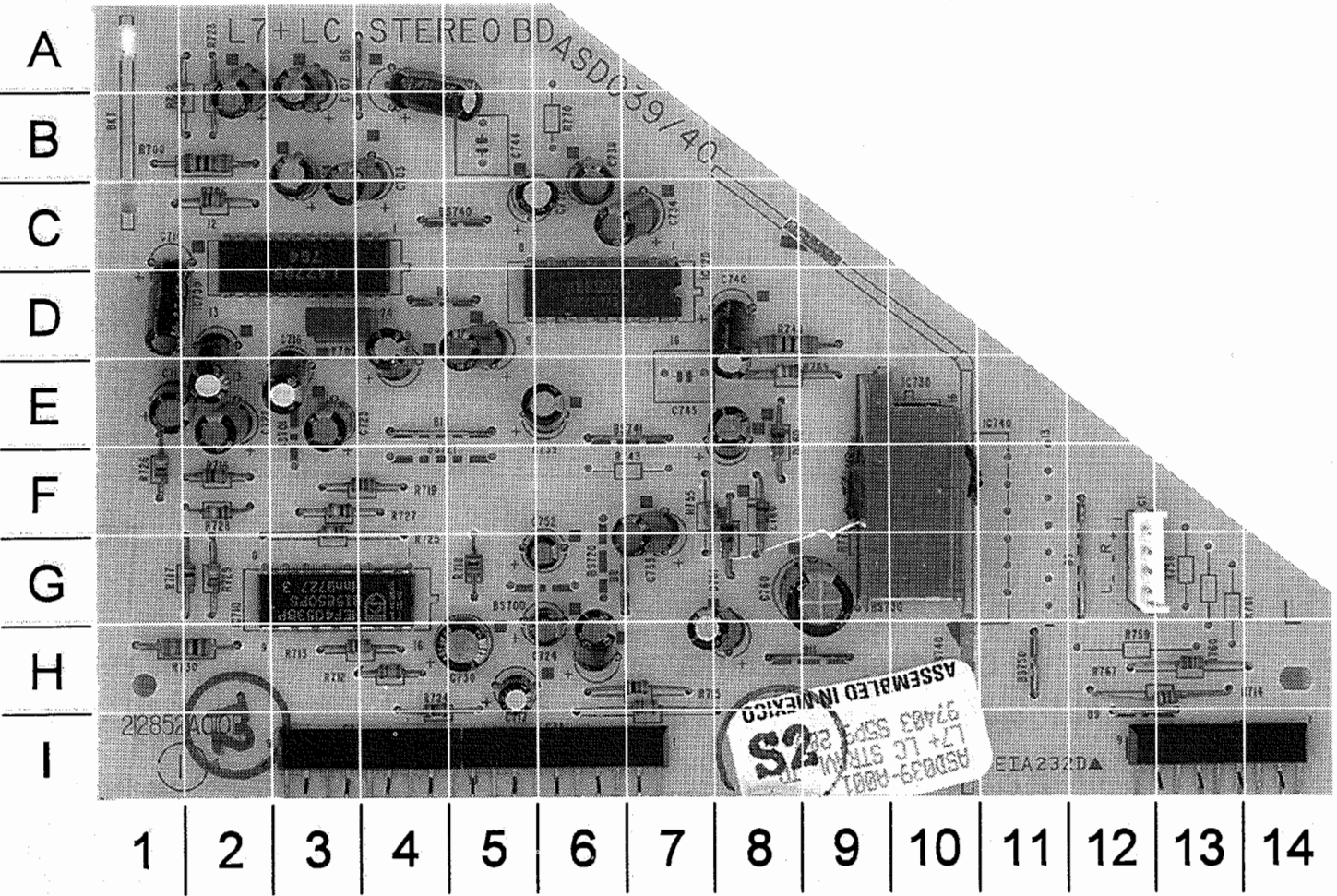


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### CRT BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE

C2313	F-4	R3323	G-2
C2323	G-1	R3331	F-12
C2333	E-12	R3332	F-12
R3312	E-3	R3333	F-12
R3313	F-3	R3338	G-4
R3321	F-2	R3339	G-2
R3322	F-2	R3340	G-3

STEREO BOARD - TOP VIEW

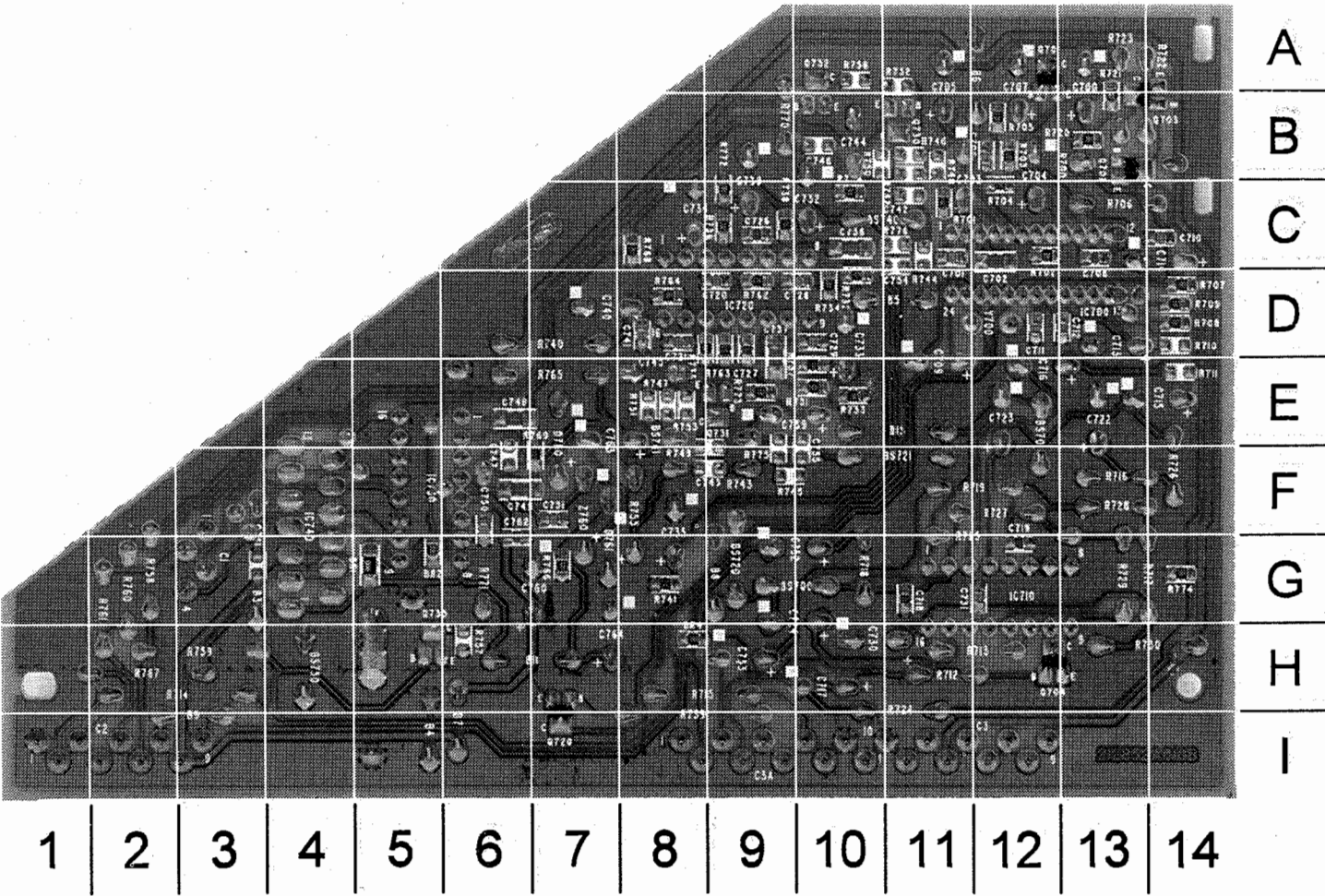


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STEREO BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

C1	G-12	C717	H-5	C760	G-9	R715	H-7	R739	H-7
C2	I-13	C722	E-2	C763	E-8	R716	F-2	R740	D-8
C3	I-4	C723	E-3	C764	H-7	R717	G-2	R755	F-7
C3A	I-6	C724	H-6	D760	E-8	R718	G-5	R765	E-8
C700	B-2	C730	H-5	D761	G-8	R719	F-4	R767	H-13
C703	C-3	C732	C-6	IC700	C-3	R722	B-2	Y700	D-3
C704	B-3	C733	D-5	IC710	G-3	R723	B-2	Z760	F-8
C705	A-4	C734	C-6	IC720	D-6	R724	H-4		
C707	A-3	C735	F-7	IC730	F-10	R725	F-3		
C709	D-4	C738	C-6	R700	B-2	R726	F-1		
C713	E-2	C739	E-6	R706	C-2	R727	F-3		
C714	D-1	C740	D-8	R712	H-4	R728	F-2		
C715	E-1	C752	G-6	R713	H-4	R729	G-2		
C716	E-3	C753	H-6	R714	H-13	R730	H-2		

STEREO BOARD - BOTTOM VIEW



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STEREO BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE

C701	C-11	C727	D-9	Q701	A-12	R709	D-14	R754	C-10
C702	C-12	C728	D-10	Q702	B-13	R720	B-13	R762	D-9
C706	B-12	C729	D-10	Q703	B-13	R721	B-13	R763	D-9
C708	C-13	C731	G-12	Q704	H-12	R731	E-10	R764	D-8
C710	C-14	C736	C-10	Q720	H-7	R732	D-10	R766	G-7
C711	D-12	C737	D-9	R701	C-11	R733	E-10	R768	C-8
C712	D-13	C741	D-8	R702	C-12	R734	D-10	R769	F-7
C718	G-11	C748	E-6	R703	B-12	R735	D-9	R772	C-9
C719	G-12	C749	F-6	R704	C-12	R736	C-9	R773	E-9
C720	D-9	C750	F-6	R705	B-12	R737	E-10	R774	G-14
C721	D-8	C751	F-7	R707	D-14	R738	C-9		
C726	C-9	C762	G-6	R708	D-14	R741	G-8		