

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

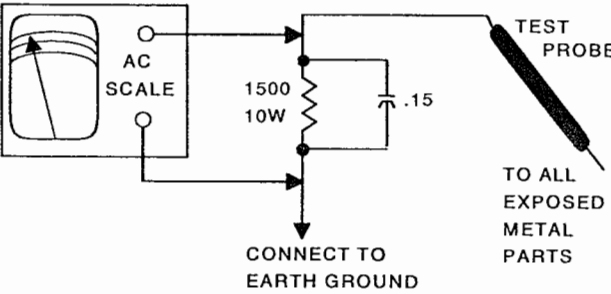
Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers,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

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

Momentarily apply a short between test points XRP1 and XRP2. The receiver should lose raster and sound. If receiver does not lose raster and sound, the shutdown circuit should be repaired. To resume normal operation, remove the short for approximately 2 seconds and then the receiver will turn on by itself.

The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by SAMS Technical Publishing, LLC 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, LLC by the manufacturers of the specific type of replacement part listed.

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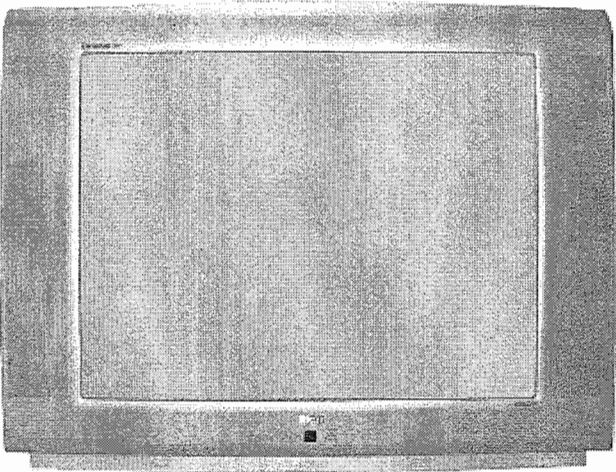
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PHOTOFACT® Technical Service Data  
SILVER

4954

RCA

Model 27F650TYX1 (Chassis ITC008FCY)



Representative Model

Essential coverage  
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

Coverage includes these additional models and chassis:

Models	Chassis
27F230TYX1	ITC008FES
27F530TYX1	ITC008FCS
27F530TYX3	ITC008KCS
27F550TYX1	ITC008
27F650TYX3	ITC008KCY



NOVEMBER 2004 SET 4954

SET 4954

MODEL 27F650TYX1 (CHASSIS ITC008FCY)

RCA

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Television .....	2
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For a Complete List of Manuals,  
Visit [www.samswebsite.com](http://www.samswebsite.com)

4954

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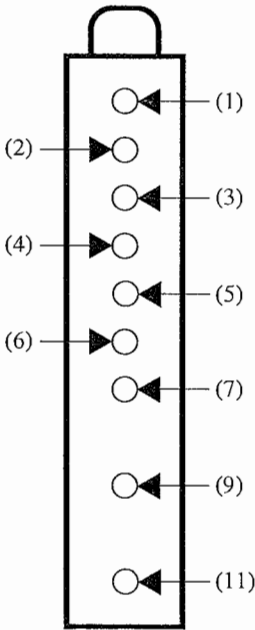
TUNER INFORMATION

TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	2.5V	2.7V	3.3V
(2) TU	2.9V	4.5V	5.3V
(3) AS	1.1V	1.1V	1.1V
(4) CL	4.8V	4.8V	4.8V
(5) DA	4.8V	4.8V	4.8V
(6) UB	5.0V	5.0V	5.0V
(7) +5V	5.0V	5.0V	5.0V
(9) +33V	33.0V	33.0V	33.0V
(11) IF	0V	0V	0V

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

TUNER TERMINAL GUIDE



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

## MISCELLANEOUS ADJUSTMENTS

### SERVICE MENU

The following adjustment procedures are accessed thru a service menu. To access the service menu, turn the receiver on, using the front panel controls, press the volume - button and hold it down, then press and release the power button. Press and release the menu button. Release the volume - button. The screen will display a one line menu, on the left the parameter P00, and on the right the value of that parameter. 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. This information is listed at the beginning of the alignment. When these parameters are modified, the T-Chip and the corresponding EEPROM are updated. All service adjustments are bus controlled, except focus and screen.

NOTE: Before making any changes to any of the values, record the On Set values. In order to adjust the RF AGC, audio or video levels, tuner, PIP, or stereo circuits, the ChipperCheck hardware, a TV/PC interface box, and the software must be used. This can be purchased from Sencore Electronics @ 1-800-SENCORE.

### SERVICE ADJUSTMENT PARAMETERS

Parameter No.	Display	Parameter Name	On Set Value	Value Range	Comment
00 (1)	-	-	Must be set to 76.	-	May not advance until value is set to 76.
01	ERR1	Error Code 1	0	0 - 255	Displays the first error detected. Set to 0 before exiting. See Error Codes Chart.
02	ERR2	Error Code 2	0	0 - 255	Displays the second error detected. Set to 0 before exiting. See Error Codes Chart.
03	ERR3	Error Code 3	0	0 - 255	Displays the last error detected. Set to 0 before exiting. See Error Codes Chart.
04	VG2	VG2	3	0 – 3	Read only, do not change value.
05	BCF	Read BCF Status	0	0 – 1	Read only, do not change value.
06 (2)	VS	Vertical Slope	35	0 - 63	Tune in a crosshatch pattern, adjust until the center is just visible.
07	VSH	Vertical Shift	28	0 - 63	Tune in a crosshatch pattern, adjust for slight overscan vertically.
08 (2)	VA	Vertical Amplitude	45	0 - 63	Tune in a crosshatch pattern, adjust for best linearity vertically.
09	HSH	Horizontal Shift	39	0 - 63	Tune in a crosshatch pattern, adjust for slight horizontal overscan.
10	SC	S Correction	25	0 - 63	Tune in a crosshatch pattern, adjust to center the pattern on the screen.
11	EW	EW Width	32	0 - 63	Tune in a crosshatch pattern, adjust for slight horizontal overscan.
12	PB	EW Parabola Width	32	0 - 63	Tune in a crosshatch pattern, adjust for straight vertical lines on left and right of the center.
13	UCP	EW Top Corner Parabola Tilt	32	0 - 63	Tune in a crosshatch pattern, adjust for straight vertical lines on top left and right corners.
14	LCP	EW Bottom Corner Parabola	32	0 - 63	Tune in a crosshatch pattern, adjust for straight vertical lines on bottom left and right corners.
15	TP	EW Trapezium	32	0 - 63	Tune in a crosshatch pattern, adjust for best compromise on left and right of vertical lines.
16	HP	Horizontal Parallelogram	32	0 – 63	Tune in a crosshatch pattern, adjust to set vertical lines perpendicular to horizontal lines.
17	HB	Horizontal Bow	32	0 - 63	Tune in a crosshatch pattern, adjust for straight vertical lines on top and bottom.
18	VX	Vertical Zoom	32	0 - 63	-
19	AGC	AGC	28	0 - 63	-
20	CDL	Cathode Drive Level	08	0 - 15	-
21	SBRI	Sub Brightness	09	1 - 17	Tune in a gray scale pattern, adjust to have first bar black and distinction between other bars.
22	SCOL	Sub Saturation	11	1 - 17	Tune in an air signal, adjust for best color.
23	SHUE	Sub Hue	08	1 - 17	Tune in an air signal, adjust for best flesh tone.
24	BLOR	Black Level Offset Red	35	0 - 63	See the color temperature adjustment.
25	BLOG	Black Level Offset Green	33	0 - 63	See the color temperature adjustment.
26	WPR	White Point Red	20	0 - 63	See the color temperature adjustment.
27	WPG	White Point Green	20	0 - 63	See the color temperature adjustment.
28	WPB	White Point Blue	18	0 - 63	See the color temperature adjustment.
29	PW	Peak White	(3)	0 - 63	Set to the values of White Point Red, Green, and Blue.
30	YDL	Y Delay Adjustment	05	0 - 15	-
31	SOC	SOC	3	0 - 3	-
32	OIF	Offset IF	32	0 - 63	-
33	GE	GE (For Kidpass Activation)	0	0 - 1	Value 0 = Enable, value 1= Disable. To reset the password, with the set off press and hold the volume down on the front panel, and the clear button on the remote for at least 5 seconds.

(1) Pass number for service adjustment parameters.

(2) Misalignment of Vertical Slope (Parameter 6) and Vertical Amplitude (Parameter 8) can trigger the Pin Cushion Board to activate the shutdown circuit. In this case temporary disconnect BL101 on the Pin Cushion Board to restart the unit and reset both parameters.

(3) White Point Red = 20, White Point Green = 20, and White Point Blue = 18.

## ERROR CODES CHART

### HIGH VOLTAGE CHECK

Tune in a picture. Set brightness, contrast, and color to minimum. Connect a high voltage probe to CRT anode. High voltage should measure 26kV to 28kV.

### PIN CUSHION

NOTE: This adjustment is used only on 4/3 sets.

Tune in a crosshatch signal. Adjust brightness, contrast, and color for 50%. Turn PL140 control full counter clockwise, located on the E/W board. Put the set in service mode, check Horizontal Shift (Parameter 09) and adjust if needed. Check Vertical Slope (Parameter 06), Vertical Shift (Parameter 07), Vertical Amplitude (Parameter 08), and adjust if any adjustment is needed. Adjust PL140 control for slight overscan. Adjust PL141, for straight vertical lines on the left and right edges of the display. Adjust PL143 for the best compromise on the left and right of the vertical lines. Repeat adjusting the controls to obtain straight vertical lines over the entire screen.

### COLOR TEMPERATURE

NOTE: Allow the set to warm up for at least 15 minutes before performing the color temperature adjustment.

Turn on the set, access the main menu, select Picture, then select Picture Preset, and then select Natural. This will reset the customer controls. Tune in a gray scale stair case pattern, place the set into service mode, adjust Black Level Offset Red (Parameter 24) and Black Level Offset Green (Parameter 25) to value of 42. Adjust White Point Red (Parameter 26) to value of 10. Adjust White Point Green (Parameter 27) and White Point Blue (Parameter 28) to produce the best gray tones in the first bars of the gray scale.

Readjust White Point Red (Parameter 26) to produce the best picture quality. Adjust Black Level Offset Red (Parameter 24) and Black Level Offset Green (Parameter 25) for the best white level on the last steps of the gray scale.

Adjusting biases and drives may affect the overall brightness. Check the low light to high light gray scale tracking. Repeat the procedure, if necessary, to obtain the best performance. Tune in an air signal and adjust the brightness for best picture in normal room lighting. If screen control is adjusted after the color temperature alignment is complete; the color temperature should be checked again to ensure that it has not been affected by adjusting the screen control.

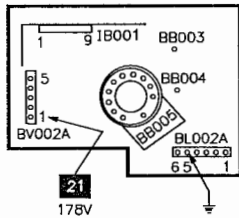
Error Code DEC	HEX	Error Location	Condition Indicated
0	00	No error code	-
136	88	IS100	IS100 fails to acknowledge.
138	8A	IX401	IX401 fails to acknowledge.
194	C2	Tuner	Tuner fails to acknowledge.

### ERROR CODES

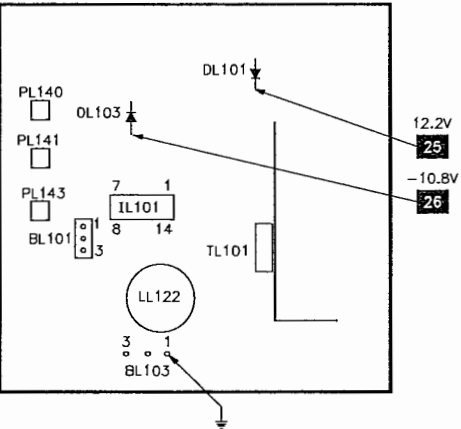
If certain failures occur, the matching error codes will be stored in the EEPROM. These error codes will be displayed in Parameters 01, 02, and 03. The first failure error code will be stored at Parameter 01 and the second failure error code will be stored at Parameter 02. Parameter 03 will be updated to display the most recent failure occurred in the chassis. If a failure of a bus IC occurred, the normal acknowledgment checking of that bus will be disabled in the service mode and the address of that IC which failed will be stored in one of the error code parameters. After every repair is done to the chassis it is recommended to check the error code parameters and reset them back to value 0.

PLACEMENT CHART

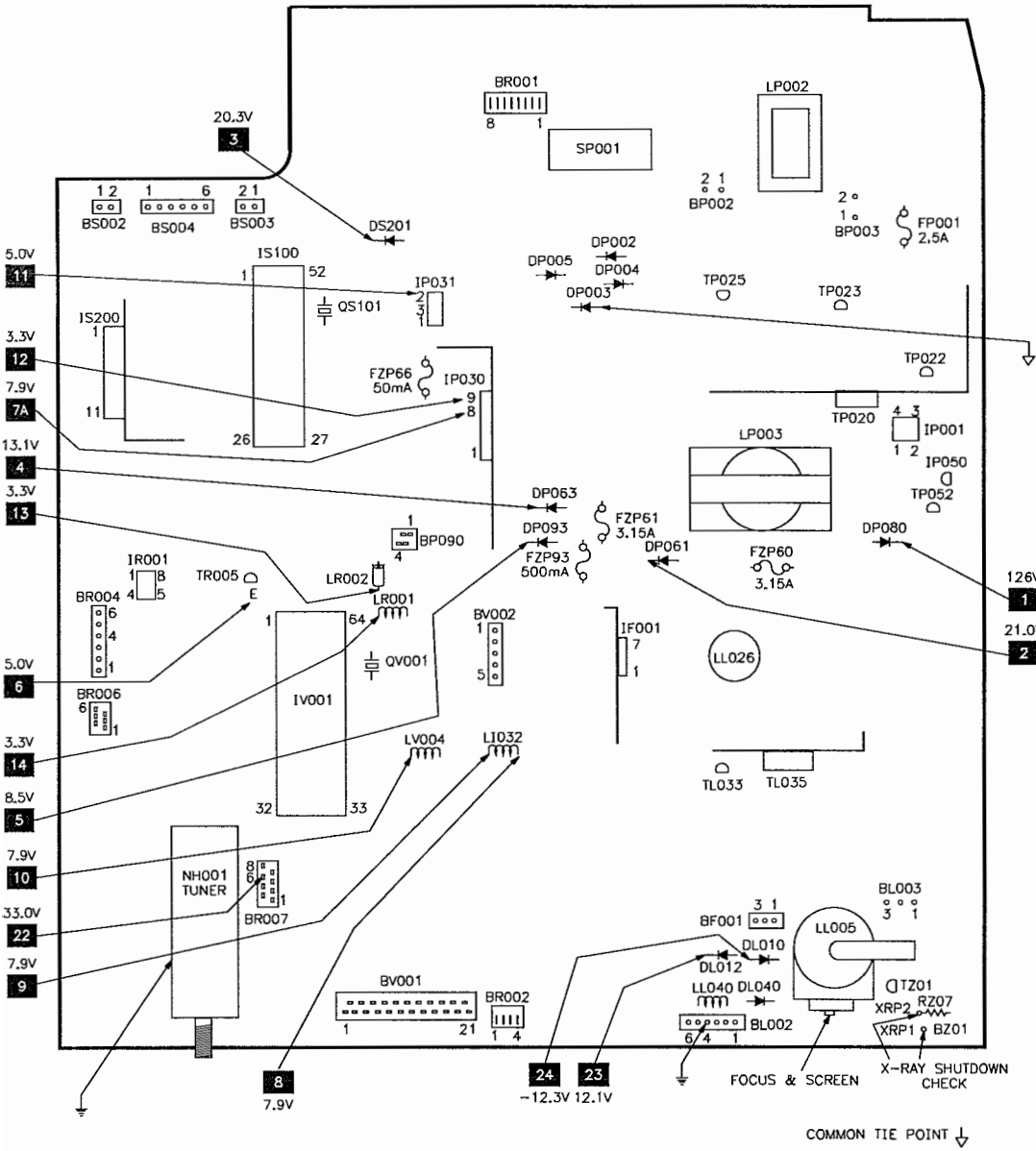
CRT BOARD



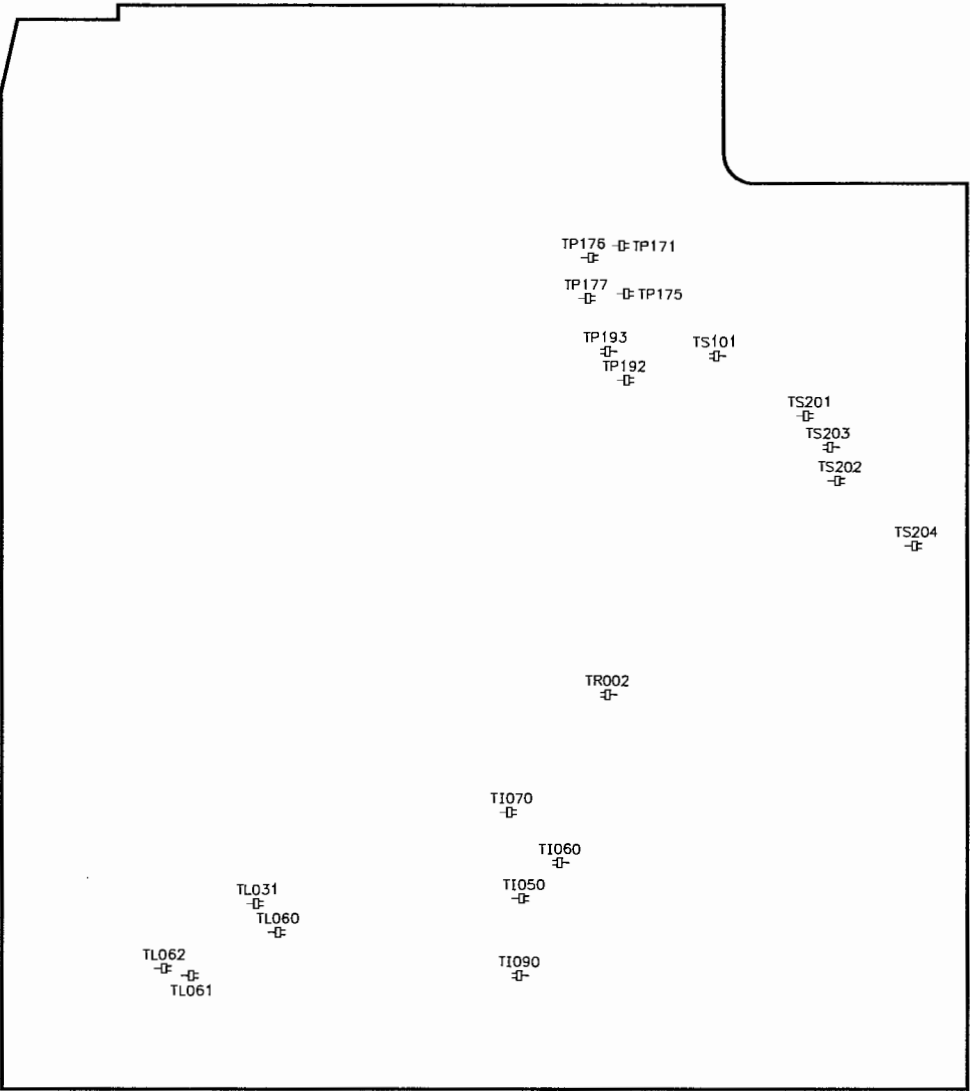
PIN CUSHION BOARD



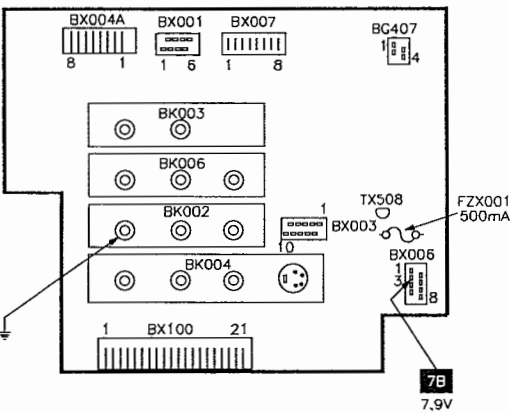
MAIN BOARD - TOP VIEW



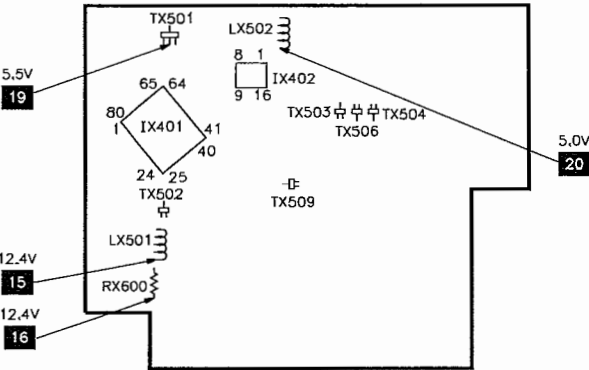
MAIN BOARD - BOTTOM VIEW



MAV BOARD - TOP VIEW



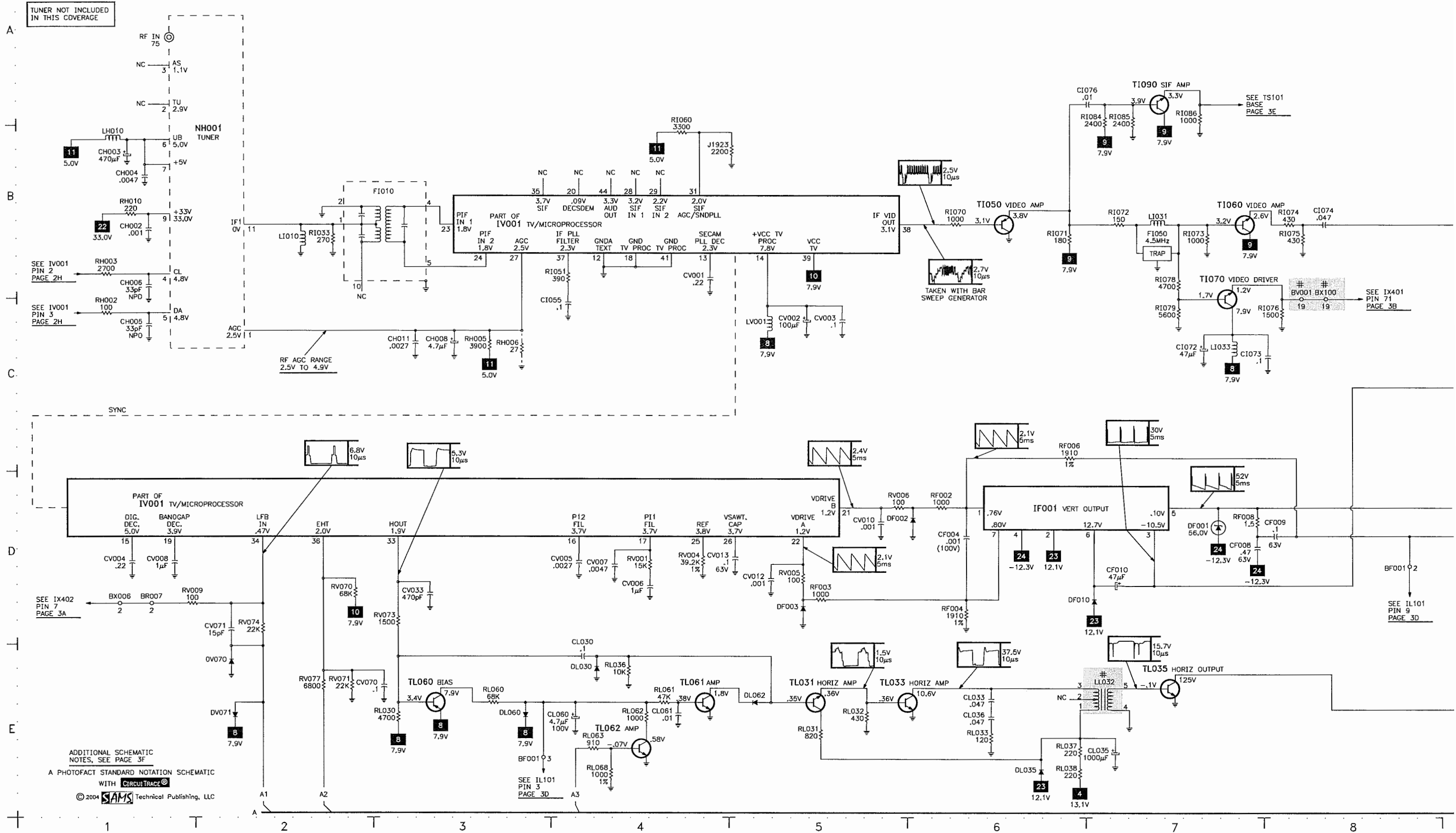
MAV BOARD - BOTTOM VIEW



**A**

## TELEVISION SCHEMATIC

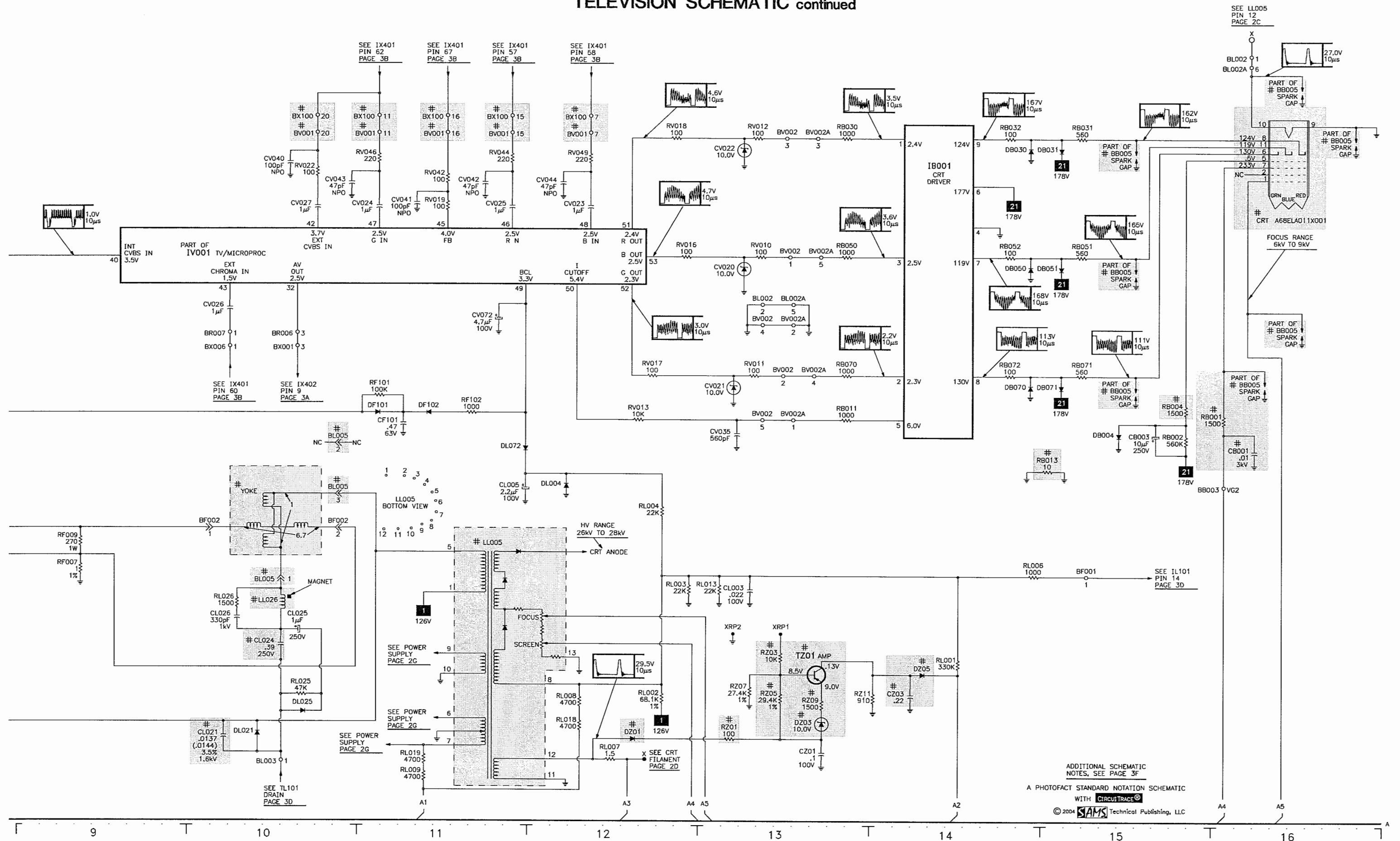
# B



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3F

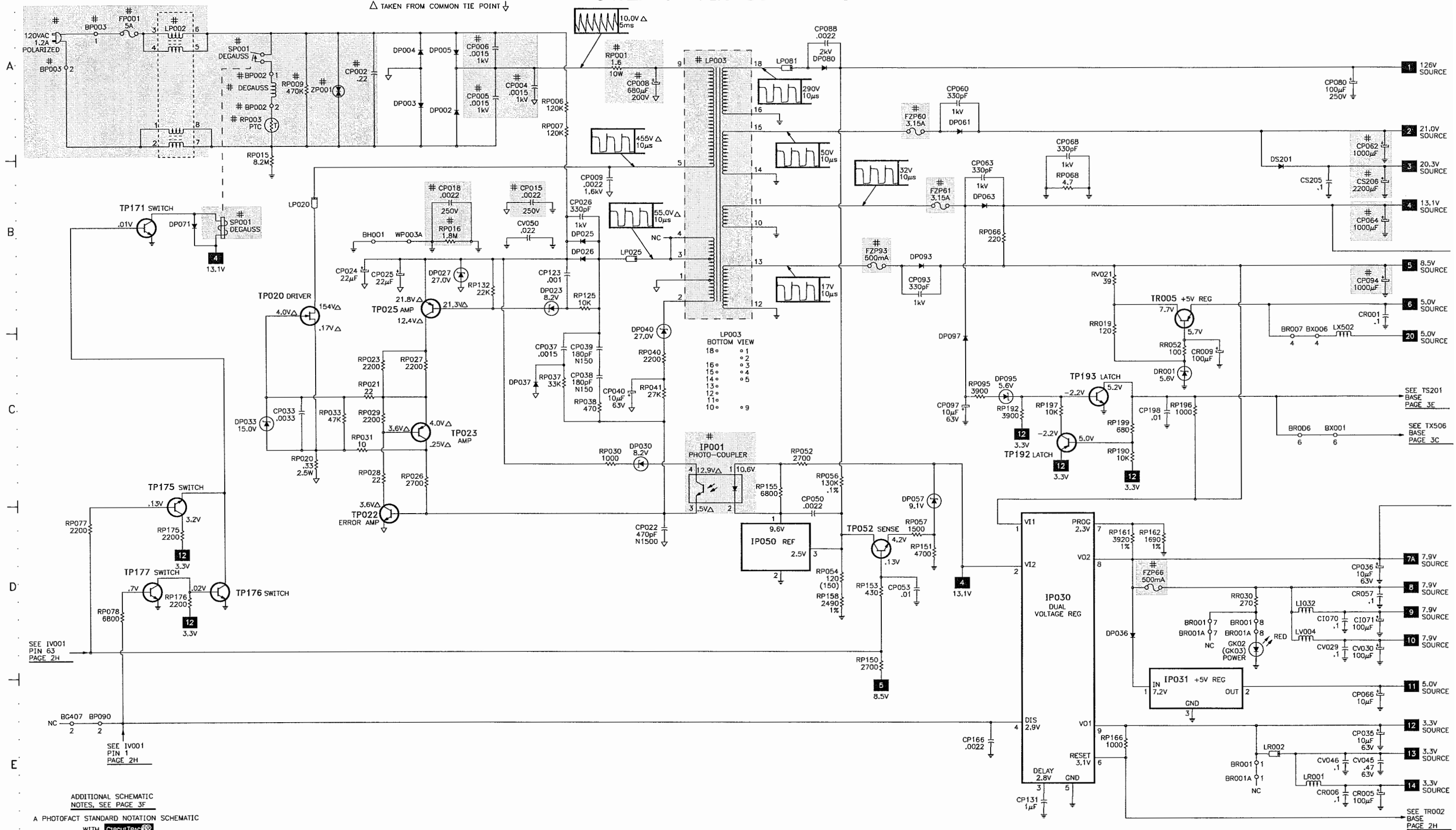
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**TELEVISION SCHEMATIC** continued



# POWER SUPPLY SCHEMATIC

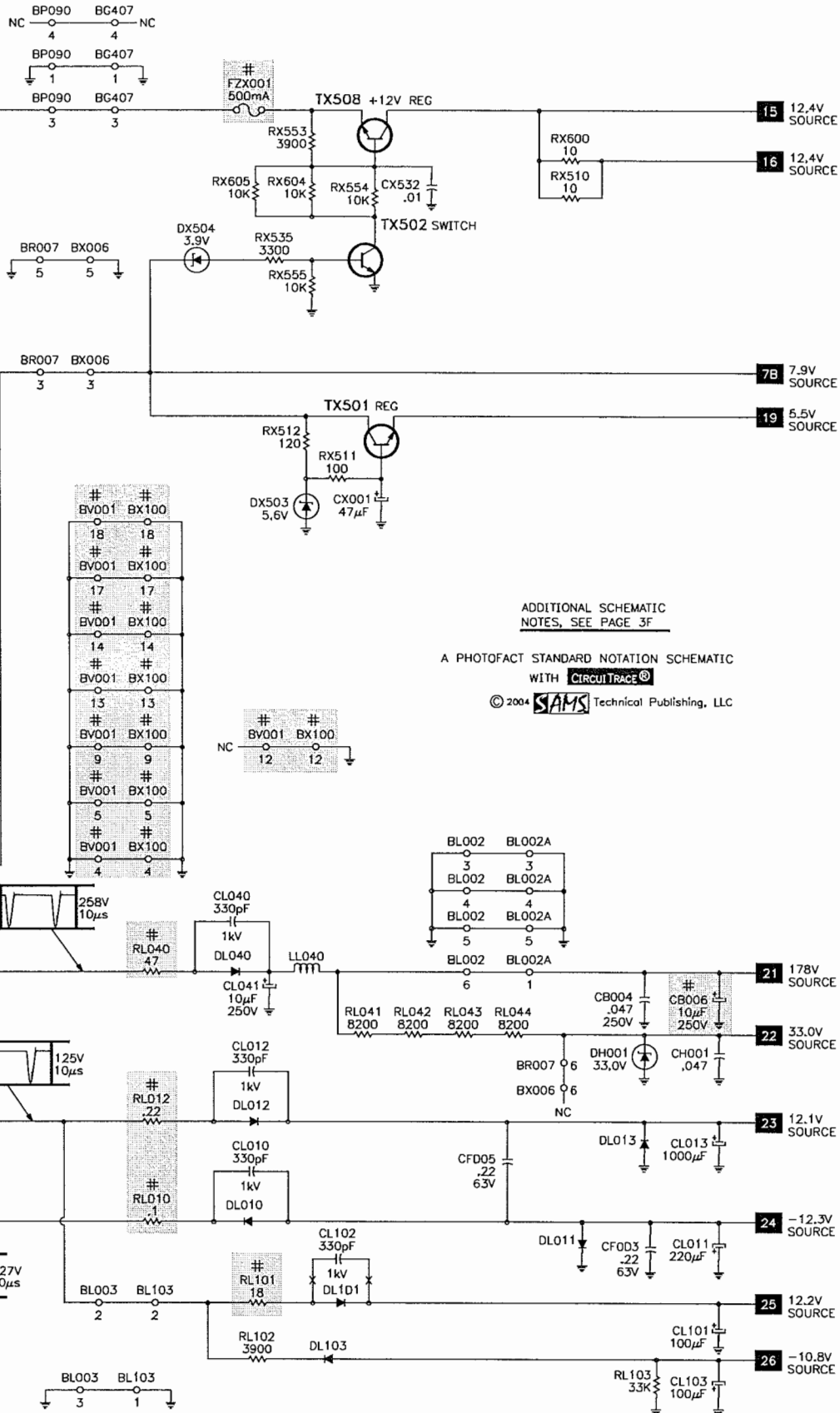


ADDITIONAL SCHEMATIC NOTES, SEE PAGE 3F

A PHOTOFAC STANDARD NOTATION SCHEMATIC WITH CIRCUITRAC

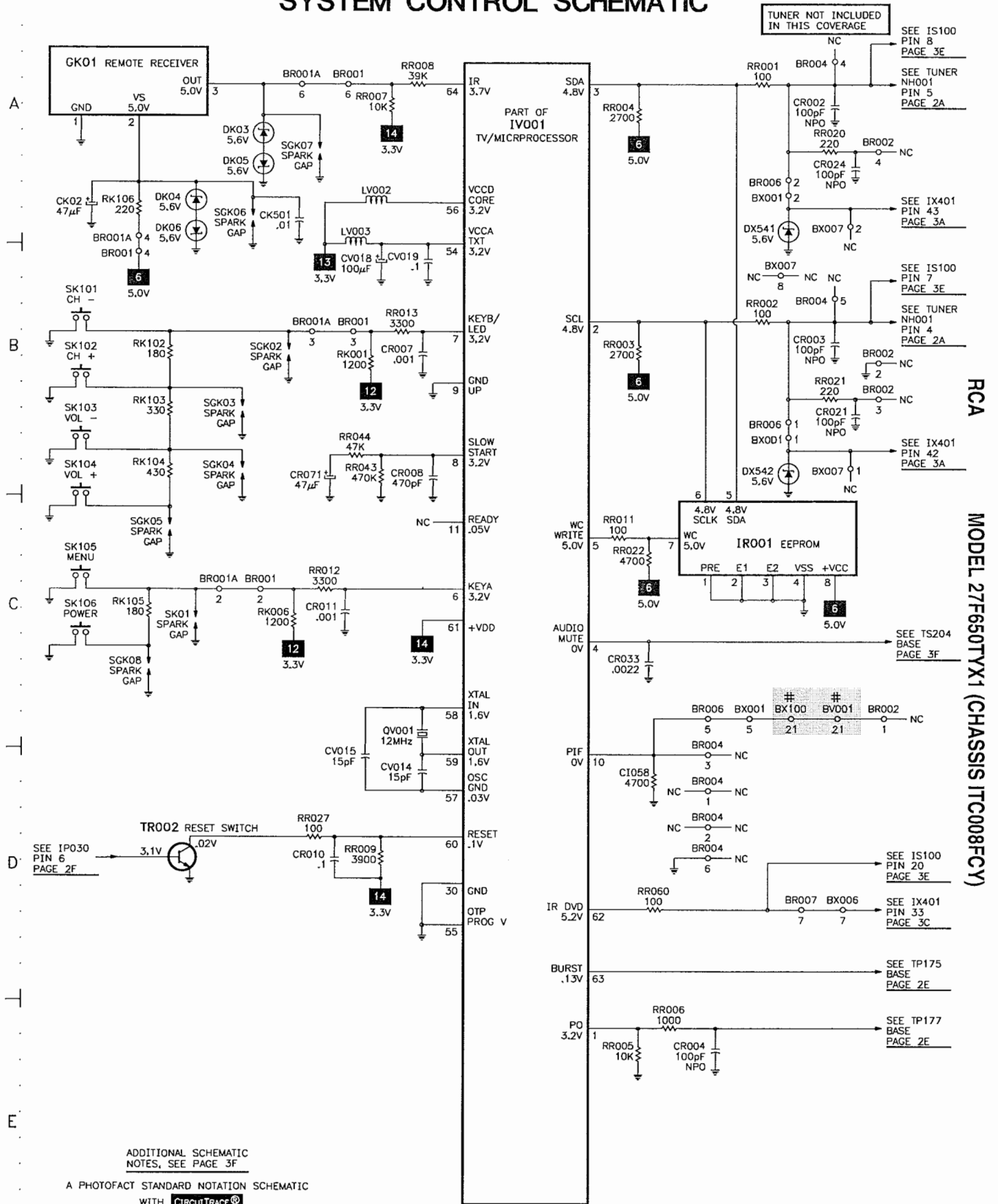
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## POWER SUPPLY SCHEMATIC continued



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# H SYSTEM CONTROL SCHEMATIC

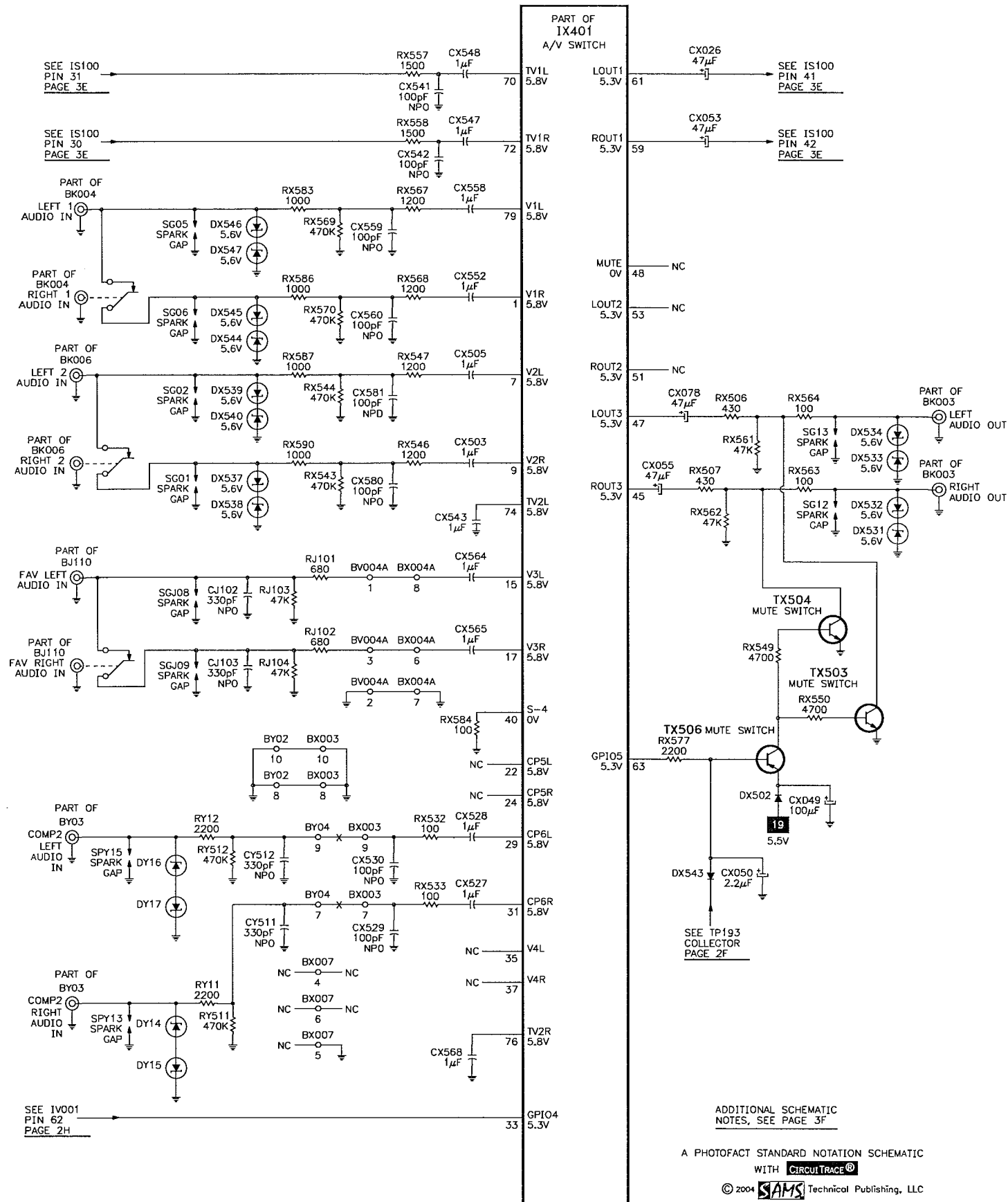


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**C**  
**MAV SCHEMATIC** continued

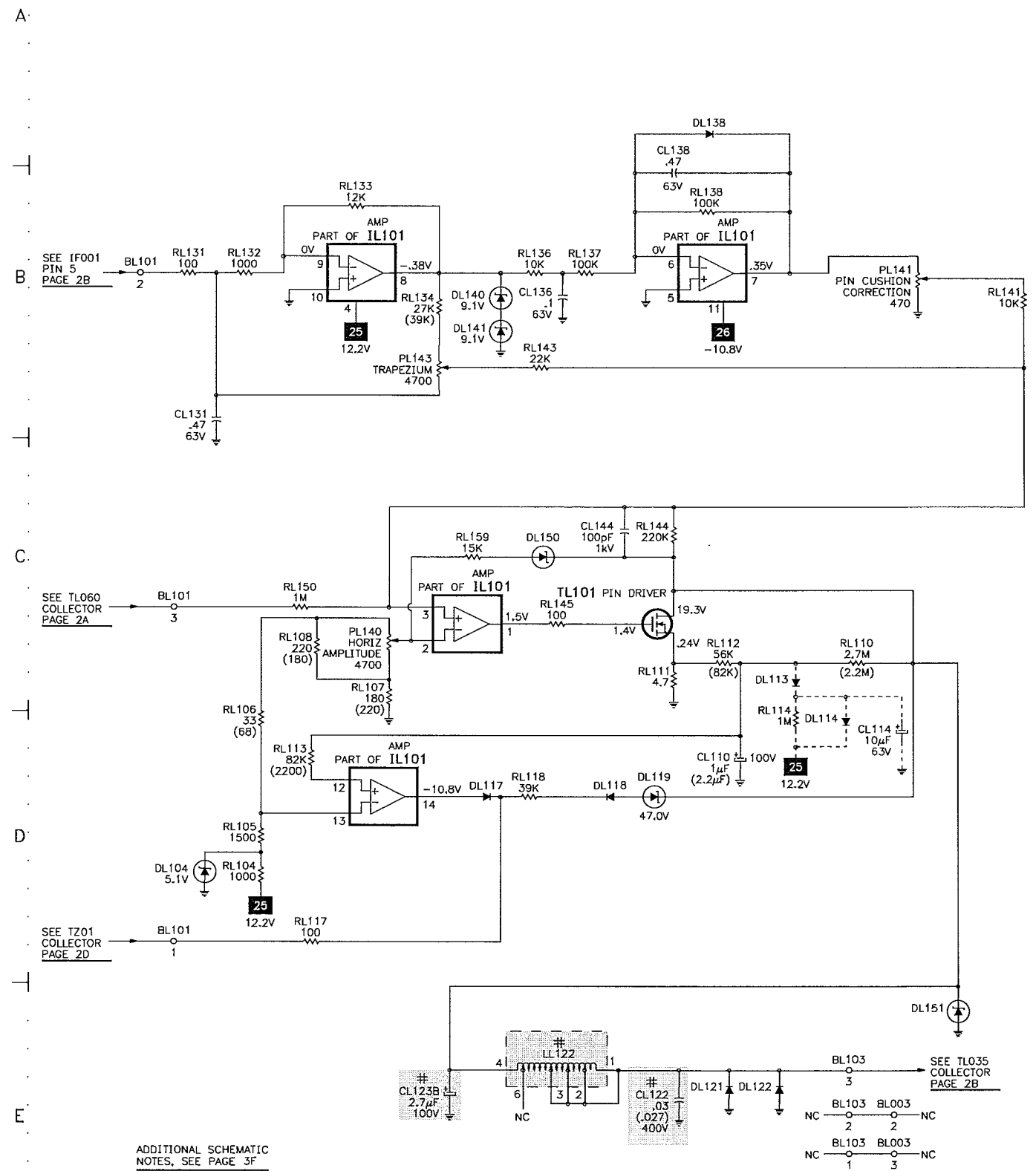


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3F

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**D**  
**PIN CUSHION SCHEMATIC**

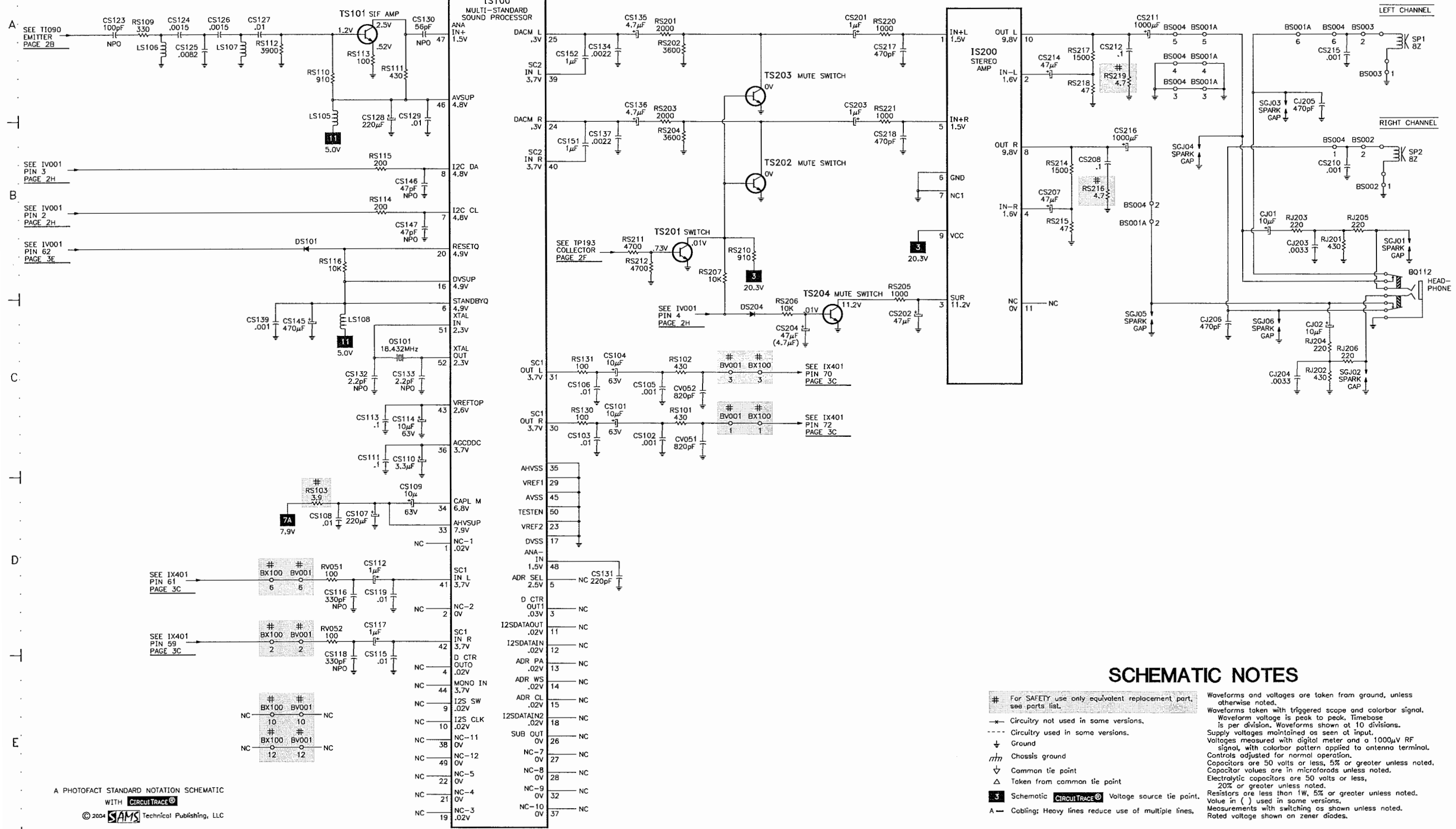


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3F

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# AUDIO SCHEMATIC



## SCHEMATIC NOTES

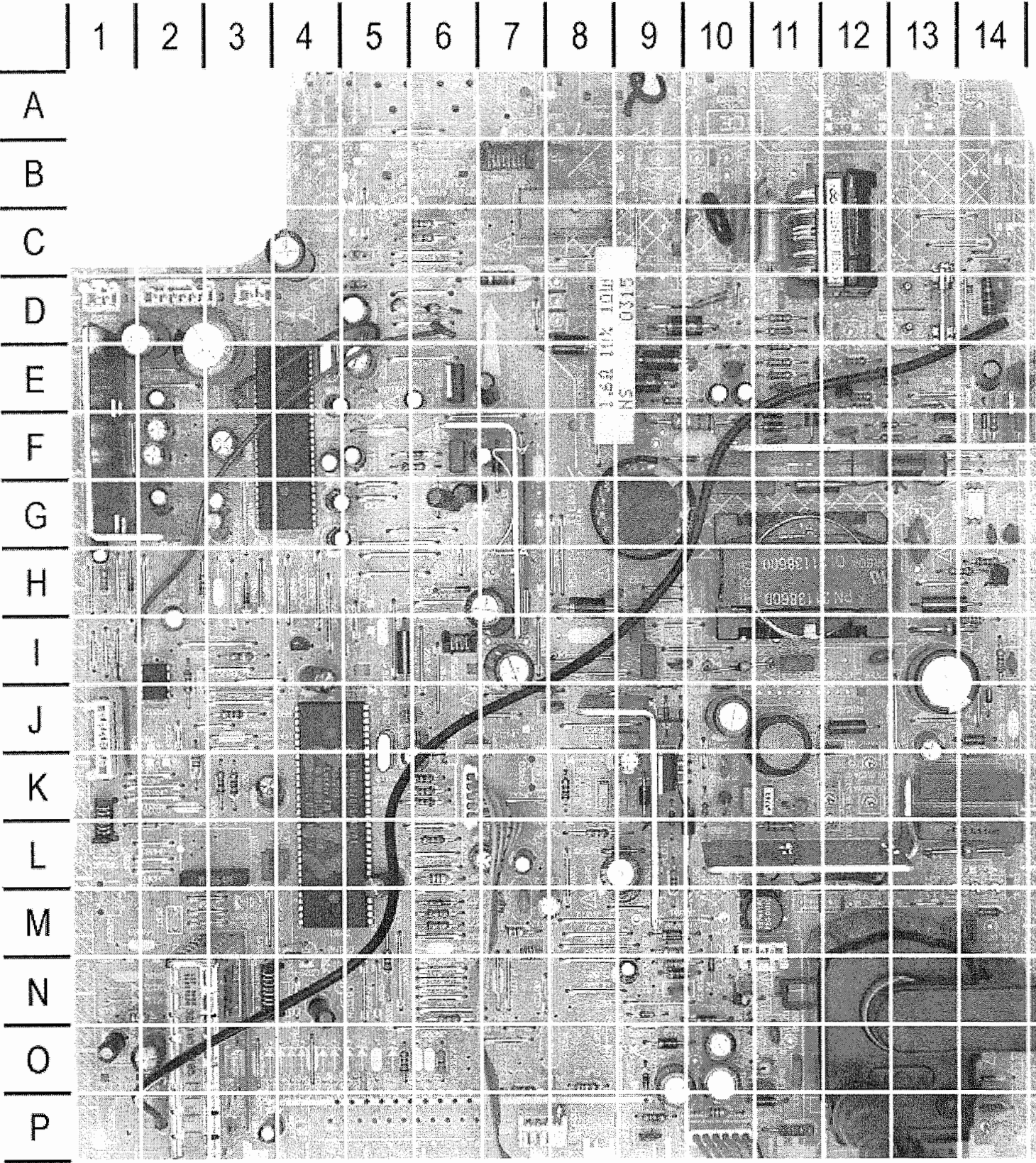
- # For SAFETY use only equivalent replacement part, see parts list.
  - Circuitry not used in some versions.
  - Circuitry used in some versions.
  - ⊥ Ground
  - ⊥ Chassis ground
  - ⊥ Common tie point
  - △ Taken from common tie point
  - 3 Schematic Voltage source tie point.
  - A --- Cabling; Heavy 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 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. Capacitor values are in microfarads unless noted. Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.  
Resistors are less than 1W, 5% or greater unless noted. Value in ( ) used in some versions. Measurements with switching as shown unless noted. Rated voltage shown on zener diodes.

SCHEMATIC COMPONENT LOCATION GUIDE

BJ110	C37	CL003	D13	CP093	B21	CS139	C50	CV052	C52	CX580	C42	DL151	E48	DX543	D43	LP003	A20	RI073	B7	RL101	E26	RP125	B20	RS207	B52	RX537	D36	RZ07	E13
BJ110	C41	CL005	D11	CP094	B24	CS145	C50	CV070	E3	CX581	B42	DP002	A19	DX544	B41	LP020	B18	RI074	B8	RL102	E26	RP132	B19	RS210	B52	RX539	B33	RZ09	E13
BJ110	C41	CL010	E26	CP097	C22	CS146	B51	CV071	D2	CX078	B43	DP003	A19	DX545	B41	LP025	B20	RI075	B8	RL103	E28	RP150	D21	RS211	B52	RX543	C42	RZ11	E13
BK002	B33	CL011	E28	CP123	B20	CS147	B51	CV072	C11	CY511	D41	DP004	A19	DX546	B41	LP081	A21	RI076	C8	RL104	D45	RP151	D22	RS212	B52	RX544	B42	SK101	B29
BK002	C33	CL012	D26	CP131	E22	CS151	B52	CX001	B27	CY512	D41	DP005	A19	DX547	B41	LR001	E24	RI078	C7	RL105	D45	RP153	D21	RS214	B54	RX546	C42	SK102	B29
BK002	C33	CL013	D28	CP166	E22	CS152	A52	CX014	E38	CY513	C33	DP023	B19	DY11	C34	LR002	E23	RI079	C7	RL106	D45	RP155	C21	RS215	B54	RX547	B42	SK103	B29
BK003	B44	CL021	E10	CP198	C23	CS201	A53	CX015	E38	CY514	D33	DP025	B20	DY12	D34	LS105	B50	RI084	B7	RL107	C46	RP158	D21	RS216	B54	RX549	C43	SK104	C29
BK003	C40	CL024	D10	CR001	B24	CS202	C53	CX026	A43	CY515	D33	DP026	B20	DY13	D34	LS106	A49	RI085	B7	RL108	C46	RP161	D23	RS217	A54	RX550	D43	SK105	C29
BK003	C44	CL025	D10	CR002	A32	CS203	B53	CX038	B35	CZ01	E13	DP027	B19	DY14	E41	LS107	A50	RI086	B7	RL110	C47	RP162	D23	RS218	A54	RX551	A36	SK106	C29
BK004	B41	CL026	D10	CR003	B32	CS204	C53	CX049	D44	CZ03	E14	DP030	C20	DY15	E41	LS108	C50	RJ101	C42	RL111	C47	RP166	E23	RS219	A55	RX553	A27	SP001	A18
BK004	B41	CL030	E4	CR004	E31	CS205	B24	CX050	D43	DB004	C15	DP033	C18	DY16	D41	LV001	C5	RJ102	C42	RL112	C47	RP175	D17	RS220	A53	RX554	A27	SP001	B18
BK004	D37	CL033	E6	CR005	E24	CS206	B24	CX503	C42	DB030	B14	DP036	D23	DY17	D41	LV002	A30	RJ103	C42	RL113	D45	RP176	D17	RS221	B53	RX555	B27	SP1	A56
BK006	B41	CL035	E7	CR006	E24	CS207	B54	CX505	B42	DB031	B15	DP037	C19	DZ01	E12	LV003	B30	RJ104	C42	RL114	D47	RP190	C23	RV001	D4	RX556	E38	SP2	B56
BK006	C37	CL036	E6	CR007	B30	CS208	B54	CX506	A35	DB050	B14	DP040	C20	DZ03	E13	LV004	D24	RJ201	B56	RL117	D45	RP192	C22	RV004	D4	RX557	A42	TI050	B6
BK006	C41	CL040	D26	CR008	C30	CS210	B56	CX507	A35	DB051	B15	DP057	D22	DZ05	E14	LX003	B34	RJ202	C56	RL118	D46	RP196	C23	RV005	D5	RX558	A42	TI060	B7
BQ112	C56	CL041	D26	CR009	C23	CS211	A55	CX508	E38	DB070	C14	DP061	A22	FI010	B2	LX004	B35	RJ203	B55	RL131	B45	RP197	C22	RV006	D5	RX560	E36	TI070	C7
BY03	C33	CL060	E4	CR010	D30	CS212	A55	CX509	C35	DB071	C15	DP063	B22	FI050	B7	LX501	E37	RJ204	C56	RL132	B45	RP199	C23	RV009	D1	RX561	C43	TI090	B7
BY03	D33	CL061	E4	CR011	C30	CS214	A54	CX510	A38	DEGAUSS	A18	DP071	B17	FP001	A17	LX502	C24	RJ205	B56	RL133	B46	RR001	A31	RV010	B13	RX562	C43	TL031	E5
BY03	D33	CL101	E28	CR021	B32	CS215	A56	CX511	C35	DF001	D7	DP080	A21	FZP60	A21	NH001	B2	RJ206	C56	RL134	B46	RR002	B31	RV011	C13	RX563	C43	TL033	E5
BY03	D41	CL102	E27	CR024	A32	CS216	B54	CX512	C38	DF002	D5	DP093	B22	FZP61	B22	PL140	C46	RK001	B30	RL136	B46	RR003	B31	RV012	B13	RX564	B43	TL035	E7
BY03	E41	CL103	E28	CR033	C31	CS217	A53	CX513	D37	DF003	D5	DP095	C22	FZP66	D23	PL141	B48	RK006	C30	RL137	B46	RR004	A31	RV013	C12	RX567	B42	TL060	E3
CB001	C16	CL110	D47	CR057	D24	CS218	B53	CX515	D38	DF010	D6	DP097	C22	FZP93	B21	PL143	B46	RK102	B29	RL138	B47	RR005	E31	RV016	B12	RX568	B42	TL061	E4
CB003	C15	CL114	D48	CR071	C30	CV001	B4	CX516	D38	DF101	C11	DR001	C23	FZX001	A26	QS101	C51	RK103	B29	RL141	B48	RR006	E31	RV017	C12	RX569	B42	TL062	E4
CB004	D28	CL122	E47	CRT	B16	CV002	C5	CX518	C35	DF102	C11	DS101	B50	GK01	A29	QV001	C30	RK104	B29	RL143	B46	RR007	A30	RV018	B12	RX570	B42	TL101	C47
CB006	D28	CL123B	E46	CS101	C52	CV003	C5	CX519	D35	DH001	D28	DS201	B24	GK02	D23	RB001	C16	RK105	C29	RL144	C47	RR008	A30	RV019	B11	RX575	D37	TP020	C18
CF003	E28	CL131	C45	CS102	C52	CV004	D1	CX520	D35	DJ09	C37	DS204	C52	1B001	B14	RB002	C15	RK106	A29	RL145	C46	RR009	D30	RV021	B23	RX577	D43	TP022	D19
CF004	D6	CL136	B46	CS103	C52	CV005	D4	CX521	B35	DJ10	C37	DV070	E2	IF001	D6	RB004	C15	RL001	E14	RL150	C45	RR011	C31	RV022	B10	RX579	B38	TP023	C19
CF005	D27	CL138	B47	CS104	C52	CV006	D4	CX522	C35	DK03	A29	DV071	E2	IL101	B46	RB011	C13	RL002	E12	RL159	C46	RR012	C30	RV042	B11	RX581	B38	TP025	B19
CF008	D7	CL144	C47	CS105	C52	CV007	D4	CX524	A38	DK04	A29	DX501	E37	IL101	B47	RB013	C14	RL003	D12	RP001	A20	RR013	B30	RV044	B11	RX583	B42	TP052	D21
CF009	D7	CP002	A18	CS106	C52	CV008	D1	CX525	C37	DK05	A29	DX502	D43	IL101	C46	RB030	B13	RL004	D12	RP003	A18	RR019	C23	RV046	B11	RX584	D42	TP171	B17
CF010	D7	CP004	A19	CS107	D50	CV010	D5	CX527	D42	DK06	B29	DX503	B27	IL101	D46	RB031	B15	RL006	D14	RP006	A20	RR020	A32	RV049	B12	RX586	B42	TP175	D17
CF101	C11	CP005	A19	CS108	D50	CV012	D5	CX528	D42	DL004	D12	DX504	B26	IP001	C20	RB032	B14	RL007	E12	RP007	A20	RR021	B32	RV051	D50	RX587	B42	TP176	D18
CH001	D28	CP006	A19	CS109	D51	CV013	D4	CX529	D42	DL010	E26	DX513	C37	IP030	D22	RB050	B13	RL008	E12	RP009	A18	RR022	C31	RV052	D50	RX590	C42	TP177	D17
CH002	B1	CP008	A20	CS110	C51	CV014	D30	CX053	A43	DL011	E27	DX514	D37	IP031	E23	RB051	B15	RL009	E11	RP015	B18	RR027	D30	RV070	D2	RX594	D37	TP192	C22
CH003	B1	CP009	B20	CS111	C50	CV015	D30	CX530	D42	DL012	D26	DX519	C34	IP050	D21	RB052	B14	RL010	E26	RP016	B19	RR030	D33	RV071	E2	RX595	D37	TP193	C22
CH004	B1	CP015	B19	CS112	D50	CV018	B30	CX531	A33	DL013	D28	DX520	C34	IR001	C31	RB070	C13	RL012	D26	RP020	C18	RR043	C30	RV073	D3	RX596	D37	TR002	D29
CH005	C1	CP018	B19	CS113	C50	CV019	B30	CX532	A27	DL021	E10	DX521	C34	IS100	A51	RB071	C15	RL013	D13	RP021	C18	RR044	B30	RV074	D2	RX597	C35	TR005	C23
CH006	C1	CP022	D20	CS114	C51	CV020	B13	CX533	B34	DL025	E10	DX522	C34	IS200	A54	RB072	C14	RL018	E12	RP023	C19	RR052	C23	RV077	E2	RX598	C35	TS101	A50
CH008	C3	CP024	B18	CS115	E51	CV021	C13	CX534	A35	DL030	E4	DX523	B34	IV001	A30	RF002	D6	RL019	E11	RP026	C19	RR060	D31	RX501	A38	RX599	B35	TS201	B52
CH011	C3	CP025	B19	CS116	D50	CV022	B13	CX536	B34	DL035	E6	DX524	B34	IV001	B3	RF003	D5	RL025	E10	RP027	C19	RS101	C52	RX502	C38	RX600	A27	TS202	B52
CI055	C4	CP026	B20	CS117	D50	CV023	B12	CX537	A33	DL040	D26	DX525	D37	IV001	B9	RF004	D6	RL026	D10	RP028	C19	RS102	C52	RX505	C37	RX601	C38	TS203	B52
CI058	D31	CP033	C18	CS118	E50	CV024	B11	CX541	A42	DL060	E3	DX526	D37	IV001	D1	RF006	D6	RL030	E3	RP029	C19	RS103	D50	RX506	B43	RX602	C39	TS204	C53
CI070	D24	CP035	E24	CS119	D51	CV025	B11	CX542	A42	DL062	E5	DX527	D37	IX401	A43	RF007	D9	RL031	E5	RP030	C20	RS109	A49	RX507	C43	RX603	C39	TX501	B27
CI071	D24	CP036	D24	CS123	A49	CV026	B10	CX543	C42	DL072	C11	DX528	D37	IX401	C37	RF008	D7	RL032	E5	RP031	C18	RS110	A50	RX508	D38	RX604	A27	TX502	B27
CI072	C7	CP037	C20	CS124	A49	CV027	B10	CX544	E35	DL101	E27	DX529	D37	IX402	A34	RF009	D9	RL033	E6	RP033	C18	RS111	A51	RX510	A27	RX605	A26	TX503	D44
CI073	C7	CP038	C20	CS125	A50	CV029	D24	CX545	B36	DL103	E27	DX530	E37	J1923	B4	RF101	C11	RL036	E4	RP037	C20	RS112	A50	RX511	B27	RY11	E41	TX504	C44
CI074	B8	CP039	C20	CS126	A50	CV030	D24	CX546	E36	DL104	D45	DX531	C44	LH010	B1	RF102	C11	RL037	E6	RP038	C20	RS113	A50	RX512	B27	RY12	D41	TX506	D43
CI076	B6	CP040	C20	CS127	A50	CV033	D3	CX547	A42	DL113	C47	DX532	C44	LI010	B2	RH002	C1	RL038	E6	RP040	C20	RS114	B50	RX513	D37	RY13	C33	TX508	A27
CJ01	B55	CP050	D21	CS128	B51	CV035	C13	CX548	A42	DL114	D47	DX533	C44	LI031	B7	RH003	B1	RL040	D26	RP041	C20	RS115	B50	RX514	D37	RY14	D33	TX509	C39
CJ02	C56	CP053	D21	CS129	B51	CV040	B10	CX055	C43	DL117	D46	DX534	B44	LI032	D24	RH005	C3	RL041	D27	RP052	C21	RS116	B50	RX518	E36	RY15	D33	TZ01	E13
CJ102	C41	CP060	A22	CS130	A51	CV041	B11	CX552	B42	DL118	D47	DX535	C39	LI033	C7	RH006	C3	RL042	D27	RP054	D21	RS130	C51	RX524	B33	RY511	E41	XRP1	D13
CJ103	C41	CP06																											



MAIN BOARD - TOP VIEW

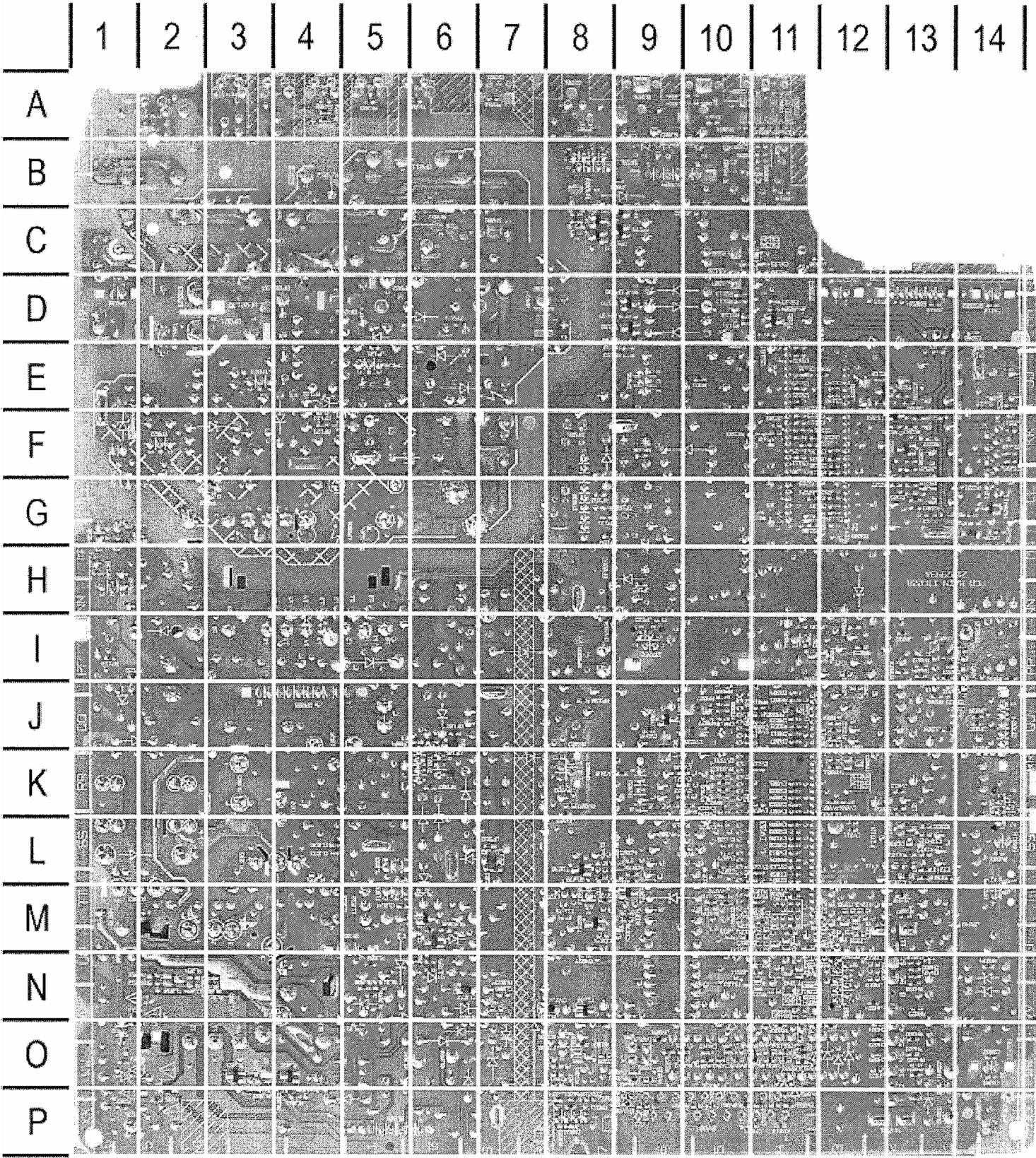


MAIN BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

BF001	M10	CL041	O10	CS109	G4	DL035	L9	IP001	G14	RL002	M14	RP057	I14
BF002	K12	CL060	L11	CS110	F4	DL040	P11	IP030	F7	RL004	N9	RP066	J8
BL002	P10	CP002	C10	CS112	F5	DL060	M9	IP031	E6	RL007	P11	RP068	J9
BL003	M14	CP004	E9	CS114	E4	DL062	N10	IP050	G14	RL010	O11	RP077	C6
BL005	K12	CP005	E9	CS117	E6	DL072	N6	IR001	I2	RL012	N10	RP078	C6
BP002	D10	CP006	E8	CS128	D5	DP002	D10	IS100	E3	RL025	K14	RP095	F6
BP003	D13	CP008	G9	CS135	G3	DP003	E9	IS200	F1	RL026	J12	RR011	J3
BP090	I6	CP009	G10	CS136	G3	DP004	E9	IV001	J4	RL031	L9	RR030	I2
BR001	B7	CP015	G13	CS145	F3	DP005	E8	LH010	N1	RL033	L11	RS103	E5
BR002	P7	CP018	D14	CS201	E2	DP023	E11	LI031	M7	RL037	L8	RS114	H1
BR004	K1	CP022	F13	CS202	E1	DP025	F11	LI032	M7	RL038	K8	RS115	H2
BR006	L1	CP024	E10	CS203	G2	DP026	F11	LI033	M7	RL040	O11	RS214	G2
BR007	N3	CP025	E10	CS204	H1	DP027	F10	LL005	N13	RL041	P9	RS216	E1
BS002	D1	CP026	F11	CS206	E3	DP030	F14	LL026	J11	RL042	O8	RS219	D4
BS003	D3	CP033	F12	CS207	F2	DP033	F13	LL032	M11	RL043	O7	RV005	K3
BS004	D2	CP035	F7	CS211	D1	DP036	F7	LL040	P10	RL044	N6	RV006	K3
BV001	P4	CP036	G6	CS214	F2	DP037	E10	LP002	C12	RP001	E8	RV009	N5
BV002	K6	CP037	E11	CS216	C4	DP040	F12	LP003	H11	RP003	C9	RV010	K6
CF003	K8	CP038	D11	CV002	K3	DP057	J14	LP020	G11	RP006	E9	RV011	K6
CF005	K9	CP039	E11	CV013	L3	DP061	I10	LP025	F11	RP007	E9	RV012	K6
CF008	K10	CP040	E14	CV018	K5	DP063	H8	LP081	H13	RP009	L11	RV021	I3
CF009	K11	CP050	G14	CV030	L5	DP071	B6	LR001	J5	RP015	D7	RV022	L6
CF010	K9	CP053	I14	CV045	J6	DP080	I13	LR002	I5	RP016	D14	RV046	O5
CF101	J9	CP060	J10	CV050	P9	DP093	I8	LS105	D5	RP020	F10	RV073	M6
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CH008	P3	CP063	H8	CZ01	P14	DP097	H6	LS107	D5	RP023	E11	RZ05	P14
CI071	L7	CP064	H7	DF001	L10	DR001	H3	LS108	E3	RP026	E12	RZ07	P14
CI072	M7	CP066	E7	DF002	K9	DS101	H1	LV001	K2	RP027	E11	SP001	C8
CL003	O11	CP068	I9	DF003	J9	DS201	D6	LV002	J6	RP028	E12	TL033	L10
CL005	N9	CP080	I13	DF010	K9	DV071	M6	LV003	K6	RP029	E12	TL035	L12
CL010	O11	CP088	I12	DF102	L7	DZ03	O14	LV004	L6	RP030	E11	TP020	F13
CL011	O11	CP093	J8	DH001	N2	DZ05	O9	NH001	P2	RP031	E12	TP022	F13
CL012	N9	CP094	I7	DL004	N9	FI010	L3	QS101	E4	RP033	F13	TP023	E12
CL013	O9	CP097	G6	DL010	N10	FI050	M7	QV001	K5	RP037	D11	TP025	E10
CL021	L14	CR005	I4	DL011	N10	FP001	D13	RF004	J9	RP038	D11	TP052	H14
CL024	K14	CR009	I2	DL012	N9	FZP60	I11	RF006	K10	RP040	E13	TR005	I4
CL025	J13	CR071	O1	DL013	O9	FZP61	I9	RF007	K11	RP041	F14	TZ01	O14
CL026	J12	CS101	N4	DL021	L14	FZP66	F6	RF008	K10	RP052	H14	XRP1	P14
CL035	L9	CS104	G4	DL025	J14	FZP93	I9	RF009	K10	RP054	H14	XRP2	P14
CL040	O11	CS107	E5	DL030	L10	IF001	K9	RL001	M9	RP056	I14	ZP001	C10



MAIN BOARD - BOTTOM VIEW

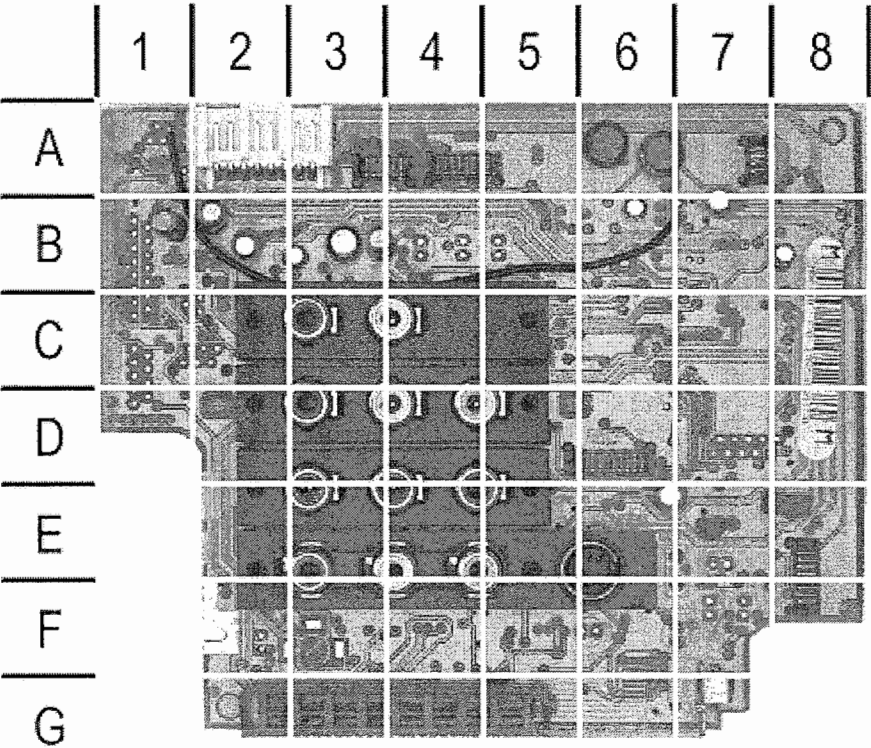


MAIN BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE

CF004	J6	CS105	O11	CV005	K11	LI010	M13	RL060	N6	RR022	I13	RV018	K10
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CH002	N13	CS108	F11	CV007	K11	RF003	J6	RL062	P4	RR043	O14	RV042	O10
CH004	O12	CS111	F11	CV008	L11	RF101	J6	RL063	P3	RR044	N14	RV044	O10
CH005	O12	CS113	E11	CV010	L11	RF102	L7	RL068	O3	RR052	I12	RV049	O9
CH006	O12	CS115	F11	CV012	L11	RH002	O13	RP125	F4	RR060	J11	RV051	P10
CH011	P13	CS116	O11	CV014	J11	RH003	O13	RP132	E4	RS101	O12	RV052	O11
CI055	M11	CS118	O11	CV015	J11	RH005	O13	RP150	J8	RS102	O11	RV070	M10
CI058	K13	CS119	F11	CV019	K11	RH010	N13	RP151	I1	RS109	C11	RV071	M11
CI070	L9	CS123	C11	CV020	K10	RI033	L13	RP153	I1	RS110	D10	RV074	M10
CI073	M8	CS124	C10	CV021	K10	RI051	M11	RP155	G1	RS111	D10	RZ01	P2
CI074	L10	CS125	C10	CV022	K10	RI060	M11	RP158	H1	RS112	D10	RZ03	P1
CI076	M9	CS126	C10	CV023	K10	RI070	L10	RP161	G8	RS113	D10	RZ09	O1
CL030	M6	CS127	D11	CV024	L10	RI071	M9	RP162	G8	RS116	F12	RZ11	N1
CL033	L4	CS129	E11	CV025	K10	RI072	M8	RP166	F9	RS130	G11	TI050	M8
CL036	L4	CS130	D11	CV026	L10	RI073	L9	RP175	C8	RS131	G11	TI060	M9
CL061	P4	CS131	E11	CV027	L10	RI074	L9	RP176	C8	RS201	F13	TI070	L8
CP123	F4	CS132	E11	CV029	L11	RI075	L9	RP190	E9	RS202	F13	TI090	N8
CP131	G8	CS133	E11	CV033	N10	RI076	O9	RP192	D9	RS203	G13	TL031	M6
CP166	G8	CS134	G12	CV035	K9	RI078	L8	RP196	D9	RS204	G13	TL060	M6
CP198	D9	CS137	G12	CV040	O9	RI079	L8	RP197	D9	RS205	G14	TL061	O4
CR001	I13	CS139	F12	CV041	O10	RI084	O8	RP199	E9	RS206	G14	TL062	O3
CR002	J13	CS146	E12	CV042	O10	RI085	O8	RR001	J13	RS207	F13	TP171	C9
CR003	I13	CS147	E12	CV043	O10	RI086	O8	RR002	I13	RS210	E12	TP175	C9
CR004	J11	CS151	F11	CV044	O10	RK001	A4	RR003	I13	RS211	E12	TP176	C8
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CR007	J11	CS205	F14	CV051	P11	RL003	N2	RR005	J11	RS215	G13	TP192	D9
CR008	J11	CS208	D14	CV052	P11	RL006	N5	RR006	J11	RS217	E13	TP193	D9
CR010	J10	CS210	D14	CV070	M11	RL008	N5	RR007	J10	RS218	E13	TR002	J9
CR011	J11	CS212	E13	CV071	M10	RL009	N5	RR008	J10	RS220	E13	TS101	D11
CR021	P8	CS215	D12	CZ03	O1	RL013	N2	RR009	J10	RS221	G14	TS201	E12
CR024	P8	CS217	E14	DF101	J6	RL018	N5	RR012	J12	RV001	K12	TS202	F13
CR033	J11	CS218	F14	DS204	G14	RL019	O5	RR013	J12	RV004	L11	TS203	F13
CR057	N8	CV001	K11	DV070	N8	RL030	M6	RR019	I12	RV013	K10	TS204	G14
CS102	O11	CV003	K11	DZ01	P2	RL032	L5	RR020	P8	RV016	K10		
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MAV BOARD - TOP VIEW

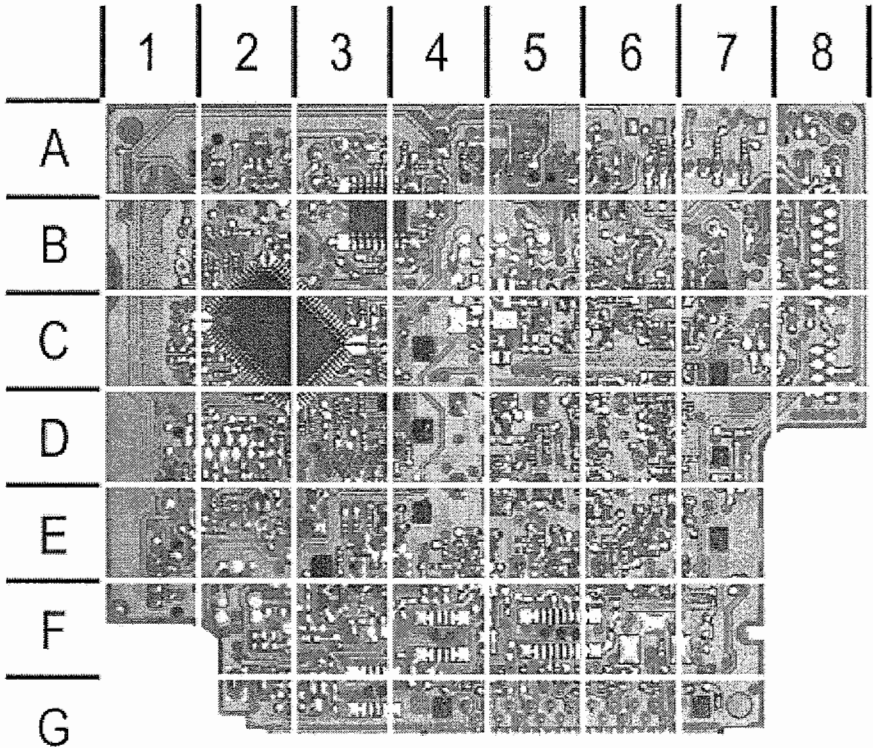


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MAV BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

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BK003	C5	BX007	A4	CX049	B3	LX004	A6
BK004	E6	BX100	G2	CX050	B3	TX508	E8
BK006	D5	CX001	B7	CX053	B2		
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MAV BOARD - BOTTOM VIEW

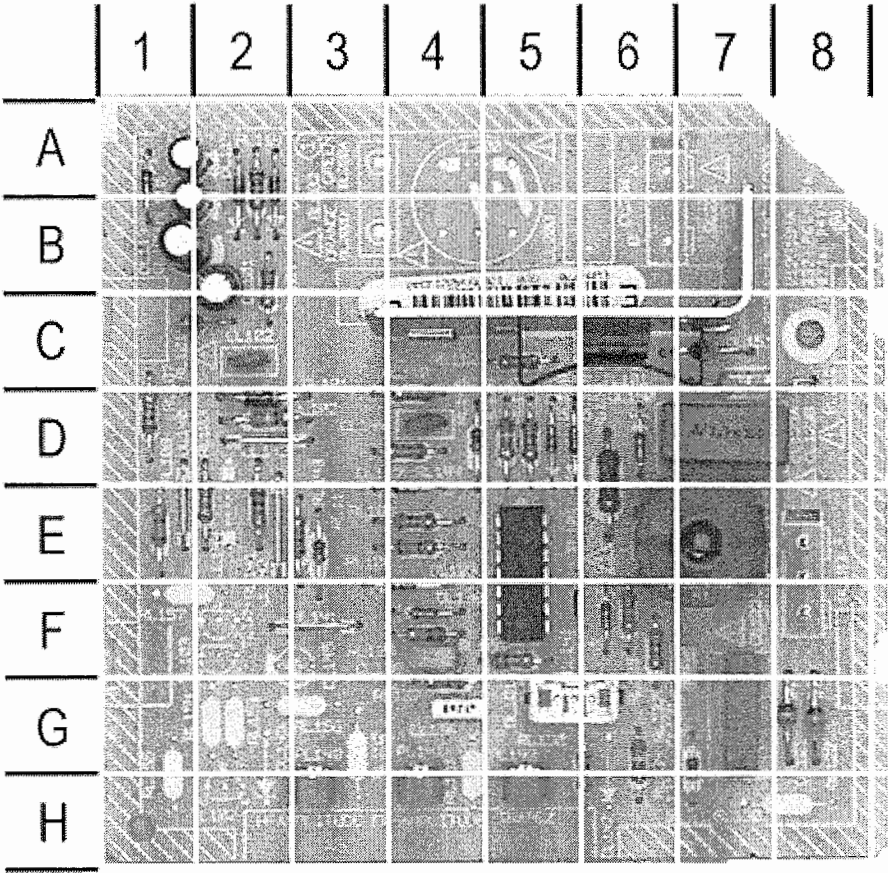


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MAV BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE

CX503	D6	CX531	B4	CX581	C6	DX535	D1	RX510	E2	RX553	E2	RX590	D6
CX505	C5	CX532	E2	DX501	E3	DX536	D1	RX511	A2	RX554	E2	RX594	E3
CX506	B4	CX533	A4	DX502	B6	DX537	D6	RX512	A2	RX555	D1	RX595	E3
CX507	B3	CX534	B4	DX503	B2	DX538	D6	RX513	E3	RX556	D2	RX596	E4
CX508	D3	CX536	A3	DX504	D1	DX539	D5	RX514	F3	RX557	G6	RX597	D5
CX509	D2	CX537	B3	DX513	D5	DX540	D6	RX518	C3	RX558	G6	RX598	D6
CX510	G5	CX541	G7	DX514	D5	DX541	B6	RX524	D7	RX560	B2	RX599	D6
CX511	D2	CX542	F6	DX519	E5	DX542	B5	RX525	D5	RX561	C6	RX600	E2
CX512	A6	CX543	B2	DX520	E5	DX543	B6	RX526	E5	RX562	C6	RX601	C4
CX513	E4	CX544	C3	DX521	E6	DX544	E6	RX530	C1	RX563	C6	RX602	C5
CX515	E3	CX545	C2	DX522	E6	DX545	E6	RX532	D4	RX564	C6	RX603	C5
CX516	E3	CX546	B2	DX523	E6	DX546	E5	RX533	D3	RX567	D5	RX604	E2
CX518	D3	CX547	B2	DX524	E7	DX547	E5	RX535	D1	RX568	E6	RX605	E2
CX519	D3	CX548	B2	DX525	E5	IX401	C2	RX536	C3	RX569	E5	TX501	A2
CX520	D3	CX552	E6	DX526	E4	IX402	B3	RX537	C3	RX570	E6	TX502	E2
CX521	D3	CX558	D5	DX527	F3	LX501	E3	RX539	A4	RX575	E4	TX503	C5
CX522	D2	CX559	E5	DX528	F3	LX502	A4	RX543	D7	RX577	B6	TX504	B7
CX524	A6	CX560	E6	DX529	E3	RX501	B6	RX544	C6	RX579	C7	TX506	B6
CX525	C2	CX564	A7	DX530	E4	RX502	B6	RX546	D6	RX581	C7	TX509	C4
CX527	D3	CX565	A7	DX531	C7	RX505	D5	RX547	C5	RX583	E5		
CX528	D3	CX568	B1	DX532	C7	RX506	B6	RX549	B6	RX584	C3		
CX529	D4	CX569	A6	DX533	C5	RX507	B7	RX550	C6	RX586	E6		
CX530	D4	CX580	D7	DX534	C6	RX508	C2	RX551	A4	RX587	C6		

PIN CUSHION BOARD



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PIN CUSHION BOARD, GRIDTRACE LOCATION GUIDE									
BL101	G5	DL101	D2	DL150	D6	RL107	D1	RL136	F5
BL103	E8	DL103	F4	DL151	C7	RL108	E1	RL137	G4
CL101	B2	DL104	A2	IL101	E5	RL110	D4	RL138	F4
CL102	C2	DL113	A1	LL122	E7	RL111	C7	RL141	E2
CL103	B1	DL114	A2	PL140	H3	RL112	C5	RL143	E3
CL110	A1	DL117	E4	PL141	H4	RL113	D5	RL144	D4
CL114	A1	DL118	D5	PL143	H5	RL114	A2	RL145	D4
CL122	G7	DL119	D5	RL101	C1	RL117	E3	RL150	G6
CL123B	D7	DL121	G8	RL102	D2	RL118	D5	RL159	D6
CL131	F7	DL122	G8	RL103	E2	RL131	G7	TL101	C6
CL136	G4	DL138	F4	RL104	B2	RL132	F6		
CL138	F4	DL140	F6	RL105	E4	RL133	F6		
CL144	D4	DL141	F6	RL106	E4	RL134	G6		

Important Parts Information

- Parts not listed in the parts list are commonly available at your local electronics parts retailer.
- 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

Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors.

- 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.
CV020, 21, 22	-	263625	-	DP057	-	232622	-
DB004	-	257783	-	DP061	-	244834	-
DB030, 31	-	230757	-	DP063	-	243844	-
DB050, 51	-	230757	-	DP071	1N4148	198589	NTE519
DB070, 71	-	230757	-	DP080	-	263632	-
DF001	-	261158	-	DP093	-	244834	-
DF002, 03	1N4148	198589	NTE519	DP095	-	215488	NTE136A
DF010	-	259231	-	DP097	-	230757	-
DF101, 02	-	248798	-	DR001	-	215488	NTE136A
DH001	-	215489	-	DS101	1N4148	198589	NTE519
DJ09	-	243276	-	DS201	-	244834	-
DJ10	-	243276	-	DS204	-	248798	-
DK03 Thru				DV070	-	248798	-
DK06	-	215488	NTE136A	DV071	1N4148	198589	NTE519
DL004	-	231093	-	DX501	-	263630	-
DL010	-	244870	-	DX502	-	248798	-
DL011	-	259231	-	DX503	-	243276	-
DL012	-	259601	-	DX504	-	243897	-
DL013	-	259231	-	DX513, 14	-	243276	-
DL021	-	242907	-	DX519 Thru			
DL025	-	244870	-	DX542	-	243276	-
DL030	1N4148	198589	NTE519	DX543	-	248798	-
DL035	-	259231	-	DX544 Thru			
DL040, 60	-	244870	-	DX547	-	243276	-
DL062	1N4148	198589	NTE519	DY11 Thru			
DL072	-	248798	-	DY17	-	220638	-
DL101	-	244870	-	# DZ01	-	248798	-
DL103	1N4148	198589	NTE519	# DZ03	-	260589	-
DL104	-	231093	-	# DZ05	1N4148	198589	NTE519
DL113, 14	1N4148	198589	NTE519	GK02, 03	-	263282	-
DL117, 18	1N4148	198589	NTE519	IB001	-	257787	-
DL119	-	260726	-	IF001	-	232109	NTE1788
DL121, 22	-	244834	-	IL101	-	263569	-
DL138	-	259549	-	# IP001	-	257786	-
DL140, 41	-	232622	-	IP030	-	263567	-
DL150	-	260726	-	IP031	-	215528	-
DL151	-	263576	-	IP050	-	231525	-
DP002	-	263582	-	IR001	-	244898	-
DP003	-	263582	-	IS100	-	263572	-
DP004, 05	-	263582	-	IS200	-	215526	-
DP023	-	232545	-	IV001	TDA9378	264079	-
DP025, 26	-	244870	-	IX401	LA79500E	262444	-
DP027	-	244835	-	IX402	-	263571	-
DP030	-	232545	-	TI050	-	256808	-
DP033	-	223694	-	TI060, 70, 90	-	259545	-
DP036	1N4001	198597	NTE116	TL031	-	259545	-
DP037	-	230757	-	TL033	-	259531	-
DP040	-	244835	-	TL035	-	230760	-

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.
TL060	-	259548	-
TL061	-	263641	-
TL062	-	259545	-
TL101	-	256868	-
TP020	-	256828	-
TP022	-	198743	NTE123AP
TP023	-	257827	-
TP025	-	230764	NTE159
TP052	-	198743	NTE123AP
TP171, 75, 76, 77	-	219349	NTE2408
TP192	-	219348	NTE2409
TP193	-	219349	NTE2408
TR002	-	259547	-
TR005	-	219354	NTE188
TS101	-	219349	NTE2408
TS201	-	219349	NTE2408
TS202, 03	-	206088	NTE2414
TS204	-	219349	NTE2408
TX501	-	263641	-
TX502	-	219349	NTE2408
TX503, 04	-	259545	-
TX506	-	225588	-
TX508	-	257827	-
TX509	-	259454	-
# TZ01	-	147665	NTE159

Item No.	Function/Rating	Mfr. Part No.	Notes
# BB005	Socket	233120	CRT
BJ110	Jack	263695	Assembly
BK002	Jack	263656	Assembly
BK003	Jack	263658	Assembly
BK004	Jack	263663	Assembly
BK006	Jack	263658	Assembly
BQ112	Jack	248799	Headphone
# CB001	.01 3kV	257795	-
# CB006	10μF 20% 250V	223809	-
CH005, 06	33pF 50V NPO	256816	-
CJ102, 03	330pF 50V NPO	256821	-
CL010, 12	330pF 20% 1kV	259366	-
# CL021	.0137 3.5% 1.6kV	263593	-
	.0144 3.5% 1.6kV	263588	-
# CL024	.39 5% 250V	263592	-
CL026, 40	330pF 20% 1kV	259366	-
CL102	330pF 20% 1kV	259366	-
# CL122	.03 5% 400V	263586	-
	.027 5% 400V	263590	-
# CL123B	2.7μF 10% 100V	263596	-

Item No.	Function/Rating	Mfr. Part No.	Notes
CL144	100pF 20% 1kV	263608	-
# CP002	.22 20%	263691	-
# CP004, 05, 06	.0015 20% 1kV	263607	-
# CP008	680μF 20% 200V	190560	-
CP009	.0022 20% 1.6kV	263583	-
# CP015, 18	.0022 20% 250V	248747	-
CP022	470pF 5% 50V N1500	198572	-
CP026	330pF 20% 1kV	230972	-
CP038, 39	180pF 5% 50V N150	251318	-
CP060	330pF 20% 1kV	230972	-
# CP062	1000μF 20% 25V	201162	-
CP063	330pF 20% 1kV	230972	-
# CP064	1000μF 20% 25V	201162	-
CP068	330pF 20% 1kV	230972	-
CP088	.0022 20% 2kV	227078	-
CP093	330pF 20% 1kV	230972	-
# CP094	1000μF 20% 25V	201162	-
CR002, 03, 04	100pF 50V NPO	256818	-
CR021, 24	100pF 50V NPO	256818	-
# CRT (1)(3)(5)	CRT	A68ELA0111	A68ELA011X001
# CRT (2)(4)(6)	CRT	6QCP893001	HA68QCP893X001
CS116, 18	330pF 50V NPO	256821	-
CS123	100pF 50V NPO	256818	-
CS130	56pF 10% 50V NPO	243363	-
CS132, 33	2.2pF ±.1pF 50V NPO	263648	-
CS146, 47	47pF 10% 50V NPO	256817	-
# CS206	2200μF 20% 25V	260637	-
CV040, 41	100pF 50V NPO	256818	-
CV042, 43, 44	47pF 50V NPO	256817	-
CX529, 30	100pF 50V NPO	256818	-
CX541, 42	100pF 50V NPO	256818	-
CX559, 60	100pF 50V NPO	256818	-
CX580, 81	100pF 50V NPO	256818	-
CY511, 12	330pF 50V NPO	256821	-
# CZ03	.22 +80% -20%	243641	-
# DEGAUSS	Degaussing	263503	-
FI010	Filter	263690	45.75MHz
FI050	Trap	219314	4.5MHz
# FP001	Fuse	175425	5Amp, 125V
# FZP60, 61	IC Protect	259219	3.15Amp, 125V
# FZP66, 93	IC Protect	260617	500mAmp, 125V
# FZX001	IC Protect	260617	500mAmp, 125V
FZX02	Fuse	263678	315mAmp, 125V
GK01	Receiver	251320	Remote
LH010	10μH	214580	-
LI010	1μH	243496	-
LI031	12μH	257828	-
LI032	10μH	214580	-

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes	Item No.	Function/Rating	Mfr. Part No.	Notes
LI033	10μH	263702	-	RV004	39.2K 1%	253848	-
# LL005 (7)	Horizontal Output	262341	-	# RZ01	100 5% 1/16W	243653	-
# LL026	23μH	263587	-	# RZ03	10K	242690	-
# LL032	Horizontal Drive	263597	-	# RZ05	29.4K 1% 1/4W	197519	-
LL040	10μH	214580	-	RZ07	24.4K 1% 1/4W	151883	-
# LL122	650μH	256791	-	# RZ09	1500 5%	256759	-
# LP002	Line Choke	263675	-	SK101	Switch	257860	Channel -
# LP003	SMT	262348	-	SK102	Switch	257860	Channel +
LP020	Ferrite Bead	244840	-	SK103	Switch	257860	Volume -
LP025	Ferrite Bead	235858	-	SK104	Switch	257860	Volume +
LP081	Ferrite Bead	244840	-	SK105	Switch	257860	Menu
LR001	10μH	263702	-	SK106	Switch	257860	Power
LR002	Ferrite Bead	244840	-	# SP001	Relay	256573	Degaussing
LS105	10μH	263702	-	SP1, 2	Speaker	253674	160 X 60mm, 8 Ohms, 12W
LS106, 07	1μH	248755	-	# YOKE (8)	-	-	-
LS108	10μH	263702	-	# ZP001	ERZV14D511	247377	-
LV001	10μH	214580	-		Fuse Holder	244842	-
LV002, 03	10μH	263702	-		PC Board (1)(2)	263364	Component Input 2
LV004	10μH	214580	-		PC Board	265078	CRT
LX003, 04	220μH	259237	-		PC Board (1)(3)(4)(5)	263368	Pin Cushion
LX501, 02	10μH	248869	-		PC Board (2)(6)	263369	Pin Cushion
NH001	Tuner	265080	CTF5820		PC Board	263374	Front A/V Input
	Tuner, Circuit	248782	CTF5800		PC Board (1)(2)	263387	Front Panel
PL140	4700 Horizontal Amplitude	263581	-		PC Board (3)(4)(5)(6)	263384	Front Panel
PL141	470 Pin Cushion Correction	263580	-		PC Board (1)(2)	263397	MAV
PL143	4700 Trapezium	263581	-		PC Board (3)(4)(5)(6)	263393	MAV
QS101	Filter	263646	18.432MHz	#	Power Cord	263429	AC, Polarized
QV001	Filter	259636	12MHz		Transmitter (1)(2)	261650	Remote, RCR160TFM1
# RB001, 04	1500	244871	-		Transmitter (3)(4)	260604	Remote, RCG311TBM2
# RB013	10	241261	-		Transmitter (5)(6)	260605	Remote, RCR311TBM2
RF004, 06	1910 1%	263619	-				
RF007	1 1%	258715	-				
RL002	68.1K 1%	263622	-				
# RL010	.1 10%	220609	-				
# RL012	.22 5%	247263	-				
# RL040	47 5%	244866	-				
RL068	1000 1%	252359	-				
# RL101	18 5% 1/4W	220605	-				
# RP001	1.6 10% 10W	263602	-				
# RP003	PTC	207768	-				
# RP009	470K 5% 1W	263654	-				
# RP016	1.8M 10% 1/2W	220333	-				
RP056	130K 1%	-	-				
RP158	2400 1%	263649	-				
RP161	3920 1%	253727	-				
RP162	1690 1%	262451	-				
# RS103	3.9 5% 1/4W	230997	-				
# RS216, 19	4.7 5% 1/4W	235901	-				

# For SAFETY use only equivalent replacement part.

% Lead configuration may vary from original.

(1) Used in model 27F650TYX1.

(2) Used in model 27F650TYX3.

(3) Used in model 27F230TYX1.

(4) Used in model 27F550TYX1.

(5) Used in model 27F530TYX1.

(6) Used in model 27F530TYX3.

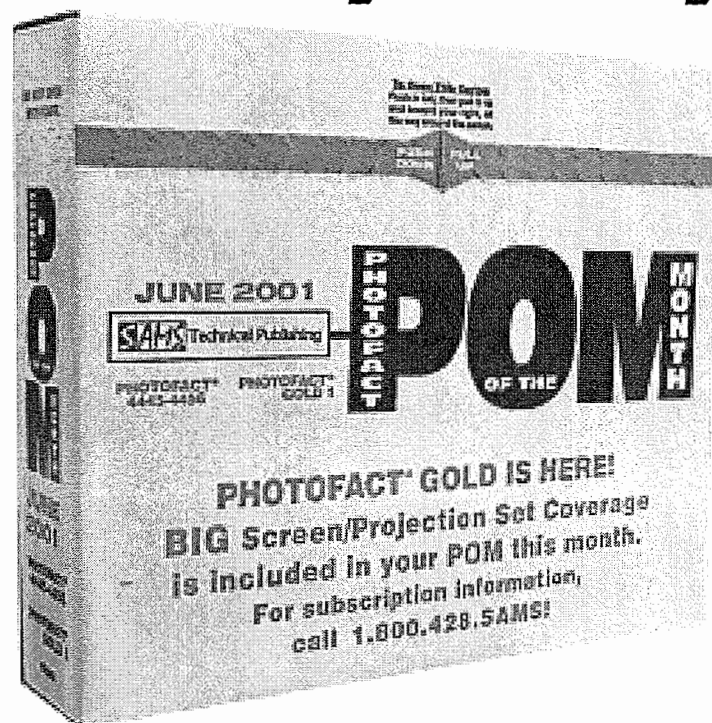
(7) Screen and focus controls are part of LL005.

(8) Bonded part of CRT.



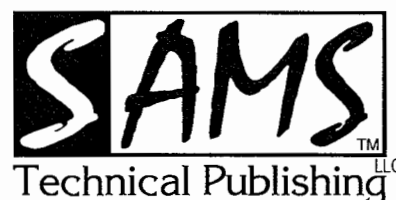
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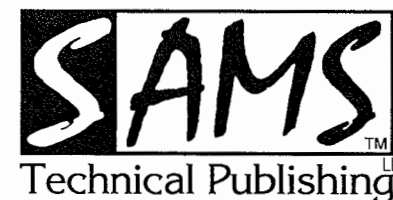
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