

SAFETY PRECAUTIONS

SERVICE WARNING

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

SERVICING THE HIGH VOLTAGE AND CRT

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

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

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

GENERAL GUIDELINES

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

HIGH VOLTAGE SHUTDOWN TEST

Check for 11.4V ±.7V at pin 3 of P651. Apply an external 13.8V to pin 3 of P651. The receiver should go into shutdown. If the receiver fails to go into shutdown, the high voltage shutdown circuit requires repair. To return the receiver to normal operation, remove the power and short pins 1 and 2 of P651. Remove short. Restore power and check for normal operation.

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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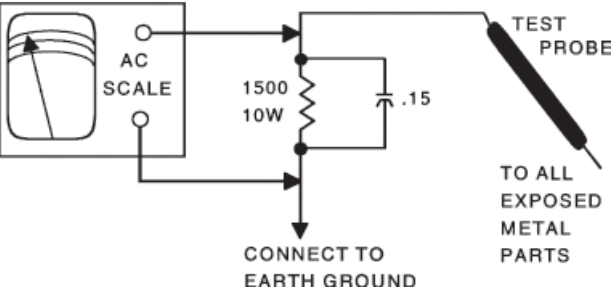
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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.



07PF03369

PHOTOFACT® Technical Service Data

5244

5244

SHARP

Model 25H-M100 (Chassis SN-61)



Representative Model

Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list



APRIL 2007 SET 5244

SET 5244

MODEL 25H-M100 (CHASSIS SN-61)

SHARP

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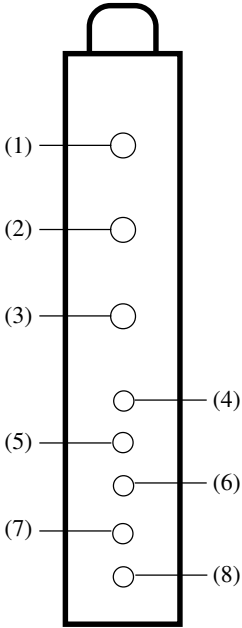
TUNER INFORMATION

TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	2.8V	3.0V	3.0V
(2) 9V	9.0V	9.0V	9.0V
(3) IF	0V	0V	0V
(4) BT	32.4V	32.4V	32.4V
(5) BP	5.0V	5.0V	5.0V
(6) SCL	4.3V	4.3V	4.3V
(7) SDA	4.2V	4.2V	4.2V
(8) NC (ENB)	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

SCHEMATIC COMPONENT LOCATION GUIDE

C51	C6	C702	A23	D502	E25	L702	B22	R419	A18	R712	B24	R2032	C3
C52	B5	C703	B23	D503	D26	L851	E27	R420	C17	R713	B26	R2033	B3
C53	C5	C704	B23	D631	D23	L2001	E2	R423	B7	R714	D13	R2034	B3
C54	C5	C705	B24	D651	E6	P703	A21	R441	A13	R715	A25	R2035	A2
C55	B5	C706	B22	D652	D6	PR701	A22	R442	A13	R716	C24	R2036	E1
C103	C23	C707	A25	D653	D6	Q201	B6	R443	A14	R717	C25	R2037	C2
C201	B5	C708	A26	D654	D6	Q301	A29	R447	A14	R718	E24	R2039	B2
C204	B6	C709	B26	D701	A23	Q354	D34	R451	E15	R719	C25	R2040	E1
C205	B6	C713	B28	D702	B23	Q401	B9	R452	E16	R751	C22	R2041	C3
C206	C7	C714	C25	D703	A23	Q402	B10	R453	E16	R752	D25	R2042	B2
C207	B8	C715	C24	D704	B23	Q403	B11	R454	E16	R754	D27	R2043	C2
C209	D28	C717	C26	D705	B25	Q433	A14	R455	D16	R755	C27	R2044	D2
C210	D27	C721	C28	D706	B26	Q451	E16	R456	D16	R757	D26	R2045	B3
C211	C15	C751	C22	D707	A26	Q453	C1	R457	E16	R801	B16	R2046	A3
C212	C15	C753	C22	D709	C25	Q454	D1	R458	E5	R802	A17	R2047	A3
C213	B7	C754	D28	D710	E26	Q601	E8	R459	D5	R803	A16	R2048	A3
C302	C9	C756	C22	D711	C25	Q602	E9	R460	D1	R804	A16	R2049	C14
C303	C9	C801	B16	D751	C22	Q606	E7	R461	D1	R805	A17	R2053	C13
C304	A29	C802	C16	D752	C22	Q751	C22	R462	D2	R806	B15	R2501	B1
C308	D34	C803	B17	D754	C22	Q752	D26	R463	C1	R851	A18	R2502	B1
C310	D33	C805	B16	D755	C21	Q753	D27	R464	C1	R852	A18	R2503	B1
C311	D32	C806	B16	D756	C21	Q851	A19	R465	C1	R853	A19	R2504	B1
C313	D28	C807	B16	D757	E26	Q852	A19	R466	A20	R855	A19	R2505	B1
C357	D35	C808	B14	D758	D27	Q853	C19	R467	A20	R856	A19	R2506	B1
C358	D36	C851	B19	D881	D17	Q854	C19	R468	A20	R857	A19	R2507	B2
C359	D36	C852	C19	D882	D18	Q855	B19	R501	D9	R858	A20	R2601	A1
C360	D35	C853	B19	D884	D18	Q856	B19	R502	D9	R859	C18	R2701	C3
C361	D22	C854	D20	D2001	E3	Q881	D18	R503	D9	R860	C18	R2702	C3
C364	D35	C883	D18	D2002	D1	Q2001	C14	R504	D8	R861	C19	R3101	B31
C402	B11	C904	D30	D2003	B4	Q3202	A32	R505	D8	R863	C19	R3102	A30
C403	B11	C906	B12	D2004	C4	Q3203	A34	R510	D10	R864	C19	R3103	D30
C404	B12	C2002	E3	D2101	B3	Q3204	B34	R511	E24	R865	C19	R3104	D31
C405	D27	C2003	B2	D2201	E4	R51	C7	R512	D11	R866	C20	R3105	D30
C406	D27	C2004	D2	D2202	D4	R52	B5	R513	E10	R867	B18	R3106	D30
C407	D28	C2007	E2	D3203	B33	R53	C6	R516	E10	R868	B18	R3109	B31
C408	B15	C2018	C13	D3204	A33	R54	B3	R517	E10	R869	B19	R3112	D27
C409	B7	C2601	A1	DY601	D11	R55	B3	R518	D10	R871	B19	R3205	B32
C410	B17	C2602	A2	F701	A21	R56	C6	R521	E10	R872	B19	R3206	B33
C411	C17	C2701	C24	FB601	E9	R57	C6	R522	D7	R873	B19	R3207	B32
C412	C16	C2702	B2	FB701	A26	R201	B5	R523	D7	R874	B20	R3208	B33
C444	A13	C3017	D28	IC101	C23	R202	B5	R551	D7	R881	D18	R3211	A33
C451	E15	C3101	A30	IC201	B12	R203	B5	R552	D7	R882	D17	R3212	B34
C452	E15	C3104	D31	IC201	B15	R204	B6	R601	E7	R883	D18	R3213	B34
C453	E28	C3203	A32	IC201	B7	R206	B6	R602	E8	R884	D18	R3214	A34
C454	D16	C3204	A33	IC201	D33	R207	B6	R603	E8	R895	D19	R3215	B34
C502	D10	C3206	B33	IC201	D6	R208	D27	R604	E9	R905	D30	R3216	B34
C504	C9	C3207	A34	IC352	D35	R209	C15	R605	D11	R907	C12	R3217	B34
C505	D8	C3208	A34	IC501	D8	R301	C9	R606	E7	R908	B12	R3218	A34
C507	D8	C3209	B36	IC701	B24	R302	B8	R608	E7	R924	D30	R3219	A35
C508	D8	C3210	B36	IC702	B25	R303	A29	R609	E8	R951	A17	R3220	B35
C510	E25	C3211	A36	IC751	D26	R305	A30	R610	E9	R952	A17	R3221	A35
C511	D11	C3213	B35	IC2001	B2	R306	D32	R611	E7	R2002	E3	R3225	A32
C512	D10	CF301	C8	IC2701	C3	R353	D34	R631	D6	R2003	D3	RMC2601	A1
C513	E10	CF302	C8	IC2702	B1	R354	D36	R632	D5	R2008	E3	RY701	A22
C514	D10	CF401	B9	IC3101	A31	R356	D34	R633	D5	R2009	E3	RY701	E26
C515	D7	CF631	D6	IC3201	A35	R359	D35	R634	D23	R2010	B1	S501	E10
C551	B15	CF2002	E1	J1001	C11	R362	D22	R651	E6	R2011	B2	S2501	A1
C603	E8	D51	C6	J1003	D29	R401	B9	R652	E6	R2012	D1	S2502	A1
C604	D28	D52	C5	L203	B6	R403	B9	R653	E6	R2013	D1	S2503	A1
C607	E9	D103	C23	L206	A8	R404	B10	R654	E6	R2017	E3	S2504	A1
C608	E10	D401	D16	L301	C9	R405	B10	R655	D6	R2019	D3	S2505	B1
C612	D11	D402	D16	L302	D33	R406	B10	R701	B23	R2021	D3	SP2	D36
C614	D11	D451	D15	L401	B9	R407	B11	R702	A22	R2022	E3	T601	E9
C631	D6	D452	D15	L402	B11	R408	B11	R704	A25	R2024	D3	T602	A25
C632	D5	D453	D15	L403	B11	R409	B11	R705	A25	R2025	D3	T602	C24
C633	D23	D454	E16	L404	B11	R410	B17	R706	B25	R2026	B3	T602	D14
C652	E6	D455	D16	L452	A13	R413	D16	R707	A25	R2028	E3	T701	C21
C653	D6	D457	D5	L601	D11	R415	B18	R708	B26	R2029	E3	V101	B20
C701	A22	D501	D8	L701	A21	R417	C18	R711	C25	R2031	C2	X801	B17

MISCELLANEOUS ADJUSTMENTS

HIGH VOLTAGE CHECK

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

SERVICE MODE

Service mode adjustments are required if IC201, IC2701, or CRT is replaced. CRT replacement requires CRT adjustments only. Service mode adjustments should not be required if only IC2001 is replaced.

Perform the following after replacement of IC201. Check the voltage at pin 3 of P651. It should measure 11.4V. Perform the High Voltage Shutdown Test.

Perform the following after replacement of IC2701. Press and hold the channel up and down buttons on the front of the receiver for more than 2 seconds. This will write the initial values into IC2701. Refer to the Service Mode Adjustment Chart.

Entering Service Mode

Turn receiver on and use reset function in the video adjustment menu to ensure that customer controls are in their proper reset position. Momentarily short test points TP2001 and TP2002 to enter the service mode. The next time TP2001 and TP2002 are shorted, the service mode is exited.

When in the service mode a letter S with a number is displayed in the lower left part of the screen and a letter D with a number is displayed in the lower right part of the screen. The S number is the service adjustment and it is changed by pressing the channel up / down buttons on the receiver or remote transmitter. The D number is the present data value of the service adjustment and it can be changed by pressing the volume up / down buttons on the receiver or remote transmitter. For a complete listing of the service adjustments, refer to the Service Mode Adjustment Chart.

RF AGC

Tune in a picture. Enter the service mode and select S08. Set the data value to a point where no snow (noise) appears in picture. Exit the service mode to select another channel. Check all channels for proper operation.

VCO

Connect a digital voltmeter to pin 44 of IC201 and ground. Tune in a local channel. Enter the service mode and select S10. Set the data value to obtain 2.2V on the digital voltmeter.

White Balance

Operate the receiver for 15 minutes. Enter the service mode and select S03. Set the data value to 00. Set brightness for a visible raster. Alternately adjust data value of S14 and S15 until a good gray scale with normal white is obtained. Select S03. Set the data value to achieve normal color level.

Gray Scale

Connect a digital voltmeter across R852 on the CRT board. Tune in an active channel. Set color, brightness, and picture to minimum. Enter the service mode and select S03. Set the data value to 00. Select S08, record the data value, and set the data value to 00. Select S04, adjust the data value to obtain .26V on the digital voltmeter. Adjust screen control, if necessary, to obtain a barely visible raster. Adjust S11, S12, and S13 for a good gray scale with normal white at high and low brightness. Select S08 and set the data value to that which was recorded above. Select S03 and adjust the data value to achieve normal color level. Adjust screen control for normal brightness.

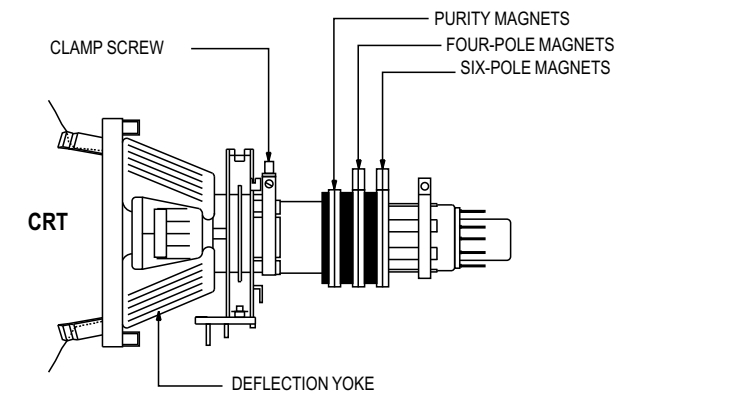
CONVERGENCE

Operate the receiver for 15 minutes. Connect a color bar generator to the antenna terminals and tune in a dot pattern. Adjust the four-pole magnet tabs to converge the red and blue dots at the center of the screen. Adjust the six-pole magnet tabs to converge the red/blue dots over the green dots at the center of the screen.

NOTE: Rotate 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. The four-pole and six-pole magnets interact, repeat adjustment until center convergence is correct.

Tune in a crosshatch pattern and remove the rubber wedges between the deflection yoke and the CRT. Tilt the deflection yoke up or down to converge the vertical lines at top and bottom of screen and the horizontal lines at the right and left sides of the screen. Tilt the deflection yoke right or left to converge horizontal lines at top and bottom of screen and the vertical lines at the right and left sides of the screen. Repeat convergence procedure if necessary to obtain best overall convergence. Apply adhesive to wedges and carefully replace on the CRT.

CRT NECK ASSEMBLY



SERVICE MODE ADJUSTMENT CHART

Service No.	Adjustment	Initial Value	Notes
S00	Default	-	-
S01	Sub Picture	55	Set brightness to minimum, picture to maximum. Adjust for normal contrast range.
S02	Sub Tint	46	Adjust for normal flesh tones.
S03	Sub Color	32	Adjust for normal color level.
S04	Sub Brightness	40	Adjust for normal brightness level.
S05	Sharpness	24	Adjust for proper sharpness of screen. Must be set to 28.
S06	Vertical Phase	00	Must be set to 00.
S07	Horizontal Position	12	Adjust for best horizontal centering on screen.
S08	RF AGC	23	0 produces a black raster.
S09	Vertical Size	20	Adjust for proper vertical size with best linearity.
S10	VCO	3C	-
S11	Red Cutoff	00	-
S12	Green Cutoff	00	-
S13	Blue Cutoff	00	-
S14	Green Gain	7F	-
S15	Blue Gain	7F	-
S16	3.58MHz Trap	00	00= On, 01= Off. Must be set to 00.
S17	Balance	20	Adjust for proper audio balance. Must be set to 20.
S18	Closed Caption Position	17	Adjust to center the black box on the screen.
S19	Option	00	Must be set to B5.

CRT BOARD



H SYSTEM CONTROL SCHEMATIC



MODEL 25H-M100 (CHASSIS SN-61)

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2E

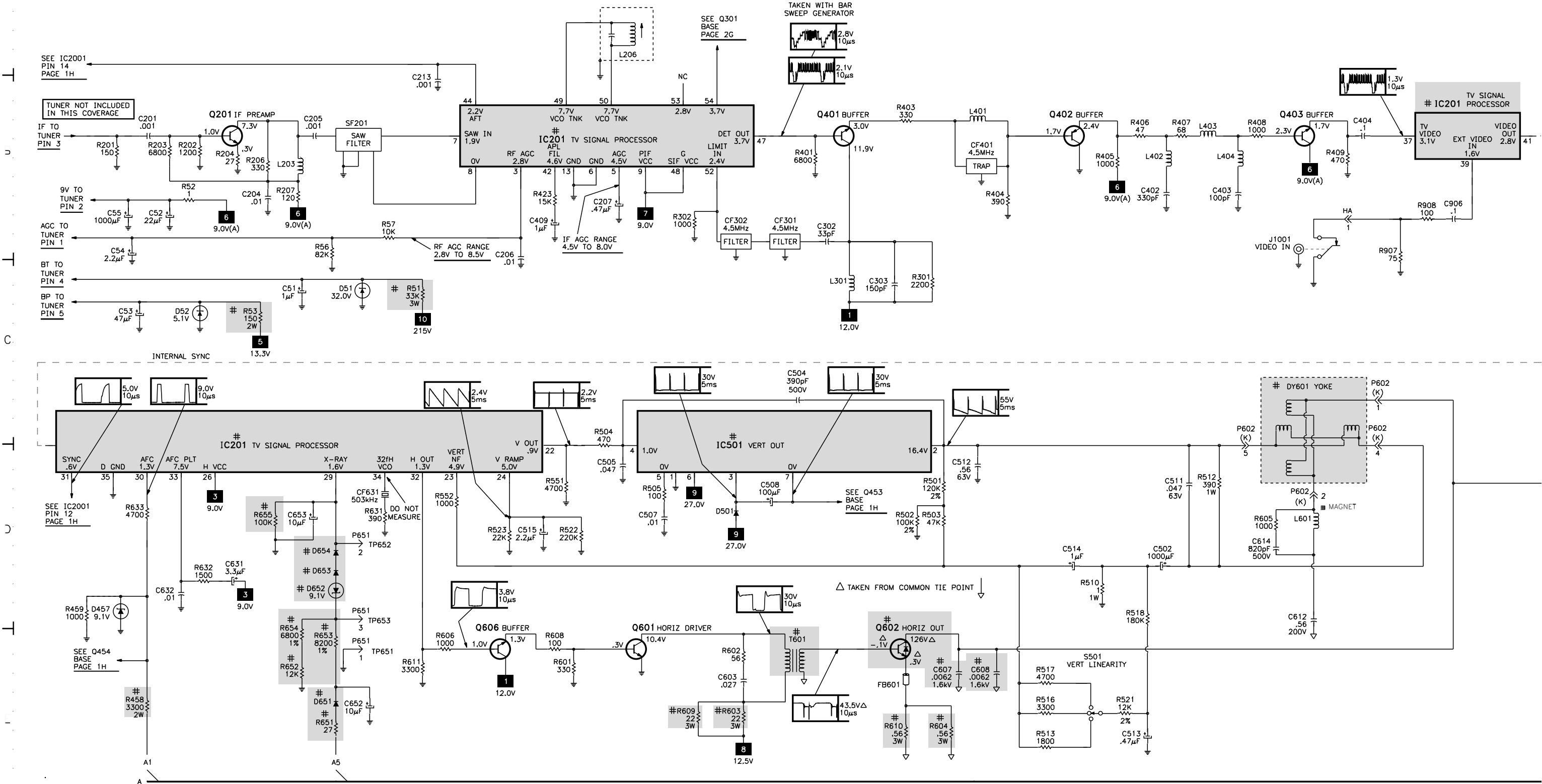
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TELEVISION SCHEMATIC

ADDITIONAL SCHEMATIC
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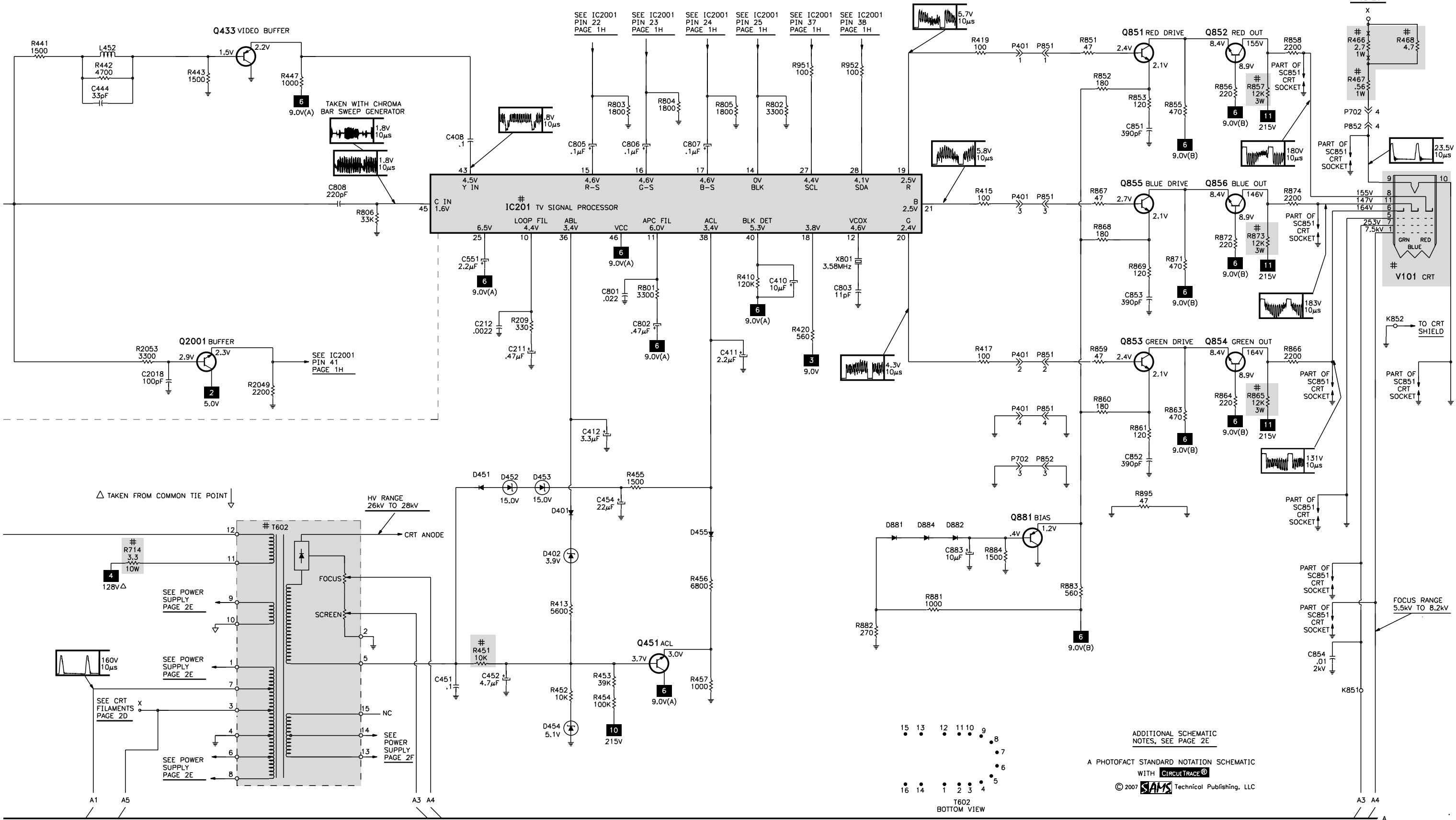
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C

D

TELEVISION SCHEMATIC continued



ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2E

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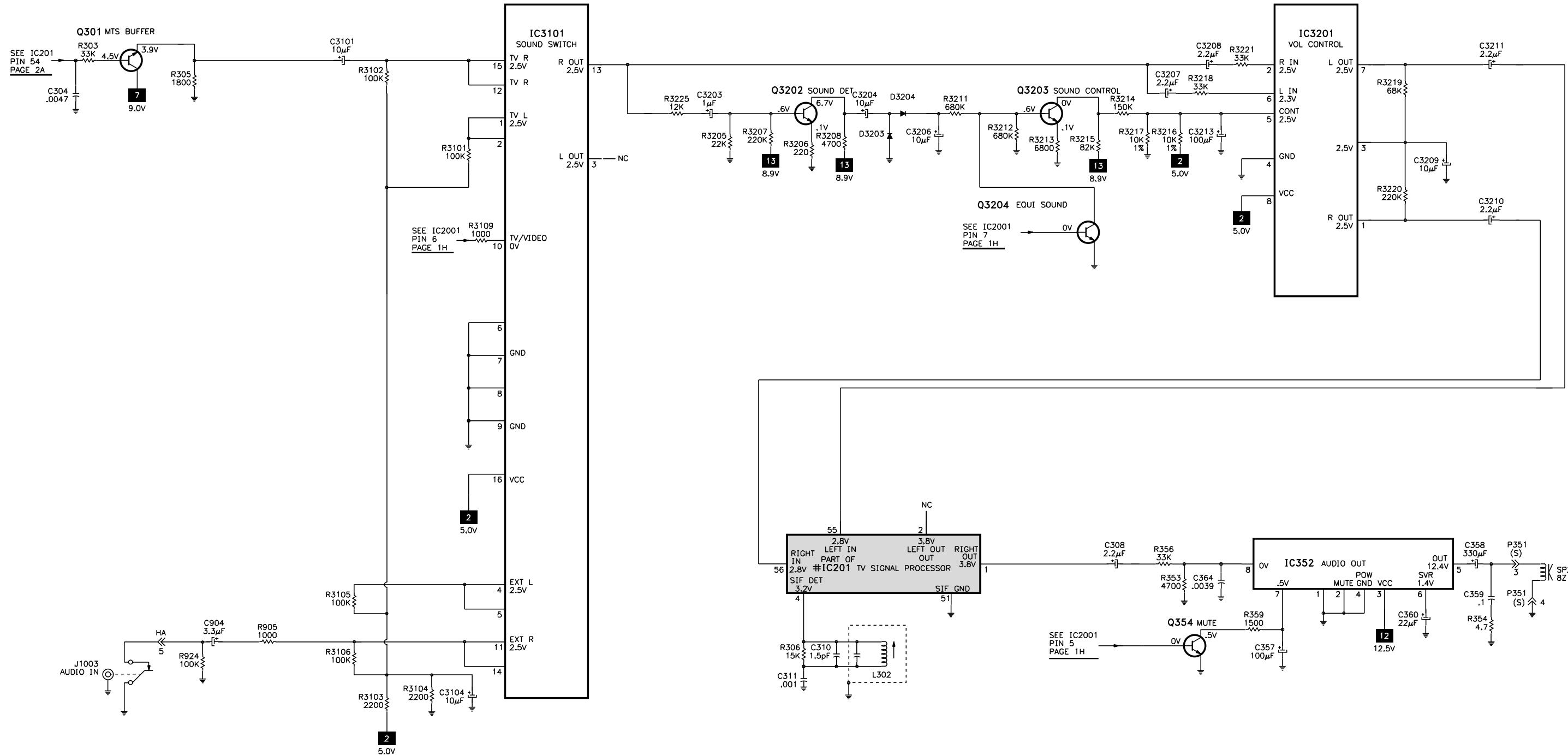
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G

AUDIO SCHEMATIC

H



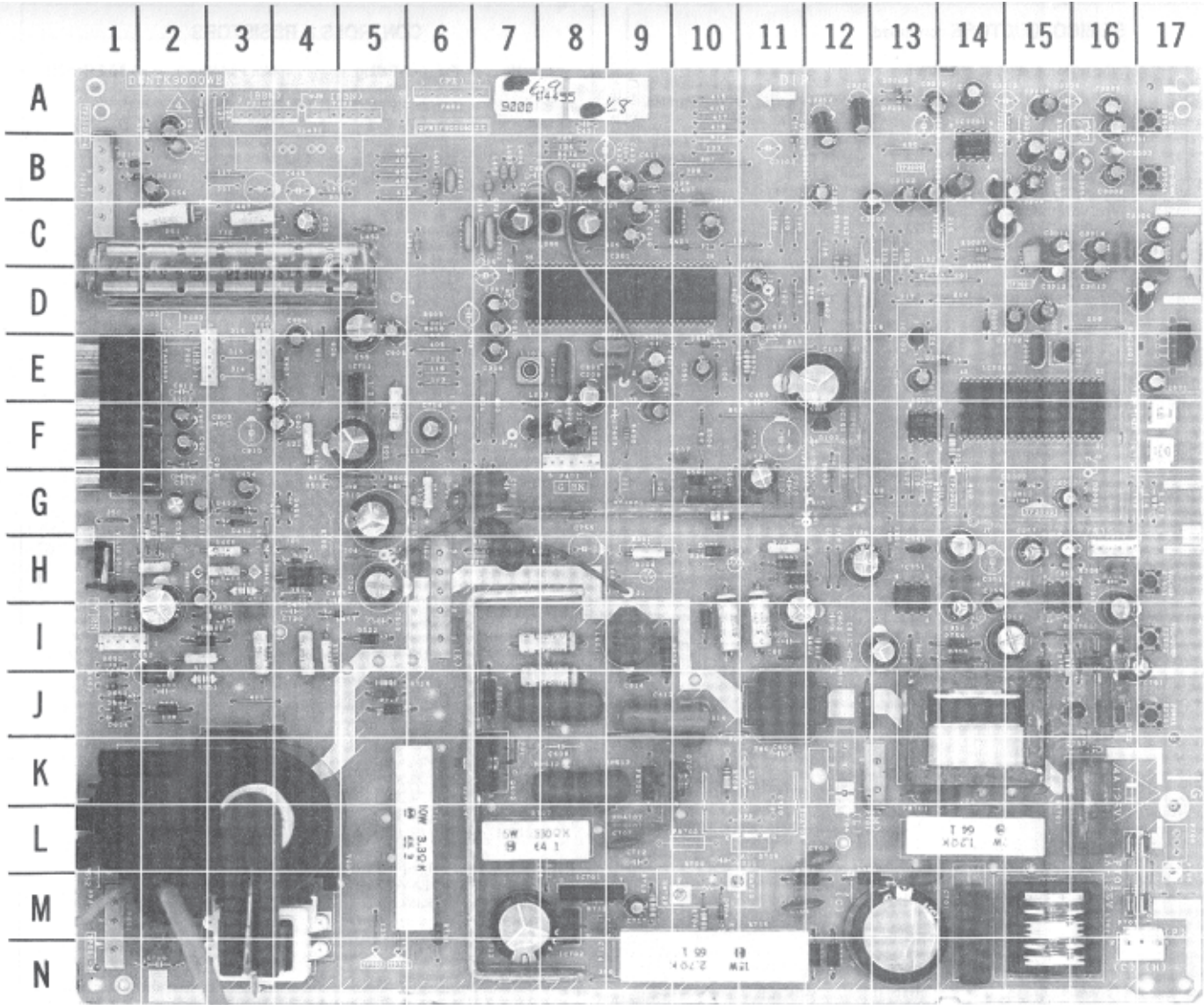
ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2E

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SHARP

MODEL 25H-M100 (CHASSIS SN-61)

MAIN BOARD - TOP VIEW

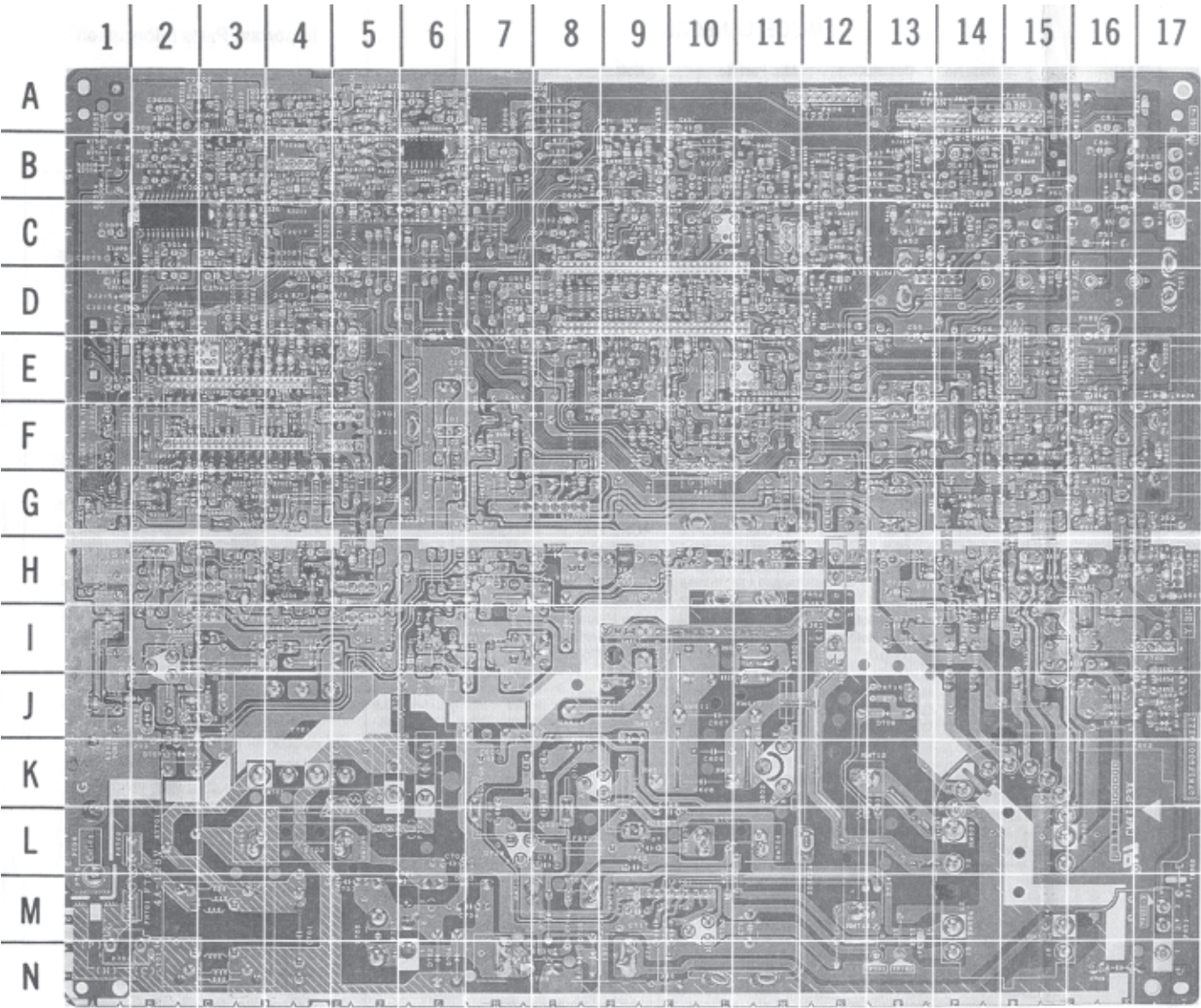



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MAIN BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

C51	A2	C653	D11	D451	H3	IC2001	F14	R604	I8
C52	B2	C701	M14	D452	G3	IC2701	F13	R605	I9
C53	C4	C702	L12	D453	G3	IC2702	E13	R609	I11
C54	B2	C703	M13	D454	H4	IC3201	B14	R610	J8
C55	D5	C704	M11	D455	G4	L203	F7	R634	E11
C103	E12	C705	M13	D457	I4	L206	C8	R651	J2
C207	D7	C706	N2	D501	G10	L301	C6	R652	I1
C209	E8	C707	L9	D502	I5	L302	E7	R653	J1
C211	F8	C708	L8	D503	I10	L401	B6	R654	J1
C313	C7	C709	K10	D631	E10	L402	B7	R701	J12
C357	H14	C713	M7	D651	J2	L403	B7	R702	L14
C358	I16	C714	M8	D652	J1	L404	B7	R704	M10
C359	H16	C715	M9	D653	J1	L452	C5	R705	N11
C360	H15	C717	M9	D654	J1	L601	I9	R706	N11
C361	H12	C721	H5	D701	M12	L701	M15	R707	L8
C364	H15	C751	I1	D702	N12	L2001	E15	R708	K10
C404	B7	C753	I15	D703	M12	PR701	K14	R711	M6
C406	C8	C754	F6	D704	N12	Q601	I12	R712	M8
C407	B9	C756	I13	D705	N10	Q602	K7	R713	M9
C408	C9	C801	E9	D706	M10	Q751	I16	R714	L6
C409	B8	C802	F8	D707	K10	Q752	J16	R715	N10
C410	C9	C805	F9	D709	J5	Q753	J16	R716	J5
C411	B9	C806	E9	D710	I2	R51	C2	R717	J5
C412	C9	C807	E9	D711	H4	R53	C3	R718	I2
C451	I3	C904	E4	D751	I15	R57	A2	R719	I3
C452	H2	C2002	G15	D752	I16	R207	F8	R751	I15
C453	I2	C2601	E17	D754	I14	R208	F8	R755	F5
C454	G3	C2701	E13	D755	I14	R354	H16	R905	D6
C502	F5	C2702	D15	D756	J15	R356	H15	R907	E4
C504	G10	C3017	C15	D757	K16	R362	H11	R951	C12
C505	F11	C3101	B13	D758	H11	R420	F9	R952	C12
C507	F10	C3203	B13	D2001	G16	R451	H3	R2012	G15
C508	G11	C3204	B12	D2002	G15	R453	I3	R2025	G14
C510	G5	C3206	A15	D2003	D14	R454	I3	R2028	F14
C511	H6	C3207	A14	D2004	E14	R455	G4	R2053	D13
C512	G7	C3208	B14	D2101	B1	R458	I4	R2601	G17
C513	G2	C3209	B15	D2201	F17	R466	H3	R3112	A2
C514	G2	C3210	B15	D2202	F17	R467	H2	RMC2601	E17
C515	D11	C3211	A13	D3203	A13	R468	H3	RY701	K16
C551	E10	C3213	B15	D3204	B11	R501	G6	S501	H1
C603	I11	CF301	C6	F701	L17	R502	G5	S2501	J17
C604	I11	CF302	C7	FB601	J7	R503	G5	S2502	I17
C607	J8	CF401	B6	FB701	K9	R504	F10	S2503	H17
C608	K8	CF631	C10	IC101	F12	R510	F4	S2504	B17
C612	J9	CF2002	E15	IC201	D7	R511	I4	S2505	A17
C614	J9	D51	C2	IC352	I15	R512	G6	SF201	E8
C631	C10	D52	C4	IC501	G11	R521	G2	T601	J11
C632	B10	D103	G12	IC701	M8	R552	E9	T701	J14
C633	D11	D401	C10	IC702	M8	R602	I12	TU51	C1
C652	J2	D402	D12	IC751	E5	R603	I10	X801	E9

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C201	E11	R201	F11	R517	H17	R2040	E4
C204	F11	R202	F11	R518	G16	R2041	E3
C205	F10	R203	F11	R522	D8	R2042	D3
C206	D11	R204	E11	R523	D8	R2043	D2
C210	D10	R206	F11	R551	D8	R2044	D2
C212	D10	R209	E10	R601	I6	R2045	E2
C213	D9	R301	C12	R606	I6	R2046	E2
C302	C12	R302	D10	R608	I6	R2047	E2
C303	C12	R303	D12	R611	H7	R2048	E2
C304	D11	R305	C12	R631	B9	R2049	E4
C310	E11	R306	E11	R632	C8	R2501	J1
C311	E11	R353	H3	R633	C8	R2502	I1
C402	C11	R359	H3	R655	D8	R2503	B1
C403	C11	R401	B12	R752	J2	R2504	B1
C405	D10	R403	C12	R754	J2	R2505	B1
C444	C13	R404	B12	R757	J2	R2506	B1
C803	E9	R405	B12	R801	E10	R2507	G1
C808	B12	R406	B11	R802	D10	R2701	E4
C906	D9	R407	B11	R803	F8	R2702	E5
C2003	F3	R408	B11	R804	E8	R3101	B5
C2004	F3	R409	B11	R805	E8	R3102	B4
C2007	E4	R410	C9	R806	D9	R3103	B5
C2018	D4	R413	E6	R908	E14	R3104	B5
C2602	D1	R415	F9	R924	E17	R3105	A5
IC3101	B6	R417	F9	R2002	G2	R3106	B5
Q201	E10	R419	F10	R2003	G2	R3109	B6
Q301	D12	R423	C10	R2008	G3	R3205	B6
Q354	H4	R441	C13	R2009	G3	R3206	B6
Q401	C12	R442	B13	R2010	G3	R3207	C6
Q402	B12	R443	C14	R2011	G3	R3208	C6
Q403	B11	R447	B14	R2013	G3	R3211	A3
Q433	C14	R452	H14	R2017	G3	R3212	A3
Q451	G14	R456	G14	R2019	G3	R3213	A3
Q453	F7	R457	G14	R2021	G4	R3214	B3
Q454	H14	R459	I14	R2024	F4	R3215	C3
Q606	I6	R460	H14	R2029	F5	R3216	A4
Q2001	D4	R461	H14	R2031	E4	R3217	B3
Q3202	A6	R462	H13	R2032	E4	R3218	A4
Q3203	B6	R463	F7	R2033	E4	R3219	B3
Q3204	B3	R464	F7	R2034	E4	R3220	B3
R52	D15	R465	F7	R2035	E3	R3221	C4
R54	C14	R505	G8	R2036	E4	R3225	B5
R55	C13	R513	H17	R2037	E3		
R56	B16	R516	H17	R2039	E3		

PARTS LIST

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D51	-	RH-EX0701GEZZ	-
D52	-	RH-EX0293CEZZ	-
D103	1SS119	VHD1SS119//-1	NTE519
D401	1SS119	VHD1SS119//-1	NTE519
D402	-	RH-EX0092CEZZ	NTE5006A
D451	1SS119	VHD1SS119//-1	NTE519
D452, 53	-	RH-EX0217CEZZ	NTE5024A
D454	-	RH-EX0293CEZZ	-
D455	1SS119	VHD1SS119//-1	NTE519
D457	-	RH-EX0313CEZZ	NTE139A
D501	-	RH-DX0441CEZZ	NTE116
# D502	-	RH-DX0131CEZZ	NTE552
D503	-	RH-DX0441CEZZ	NTE116
D631	-	RH-EX0312CEZZ	NTE5018A
# D651	-	RH-DX0131CEZZ	NTE552
# D652	-	RH-EX0655CEZZ	NTE5018A
# D653, 54	1SS119	VHD1SS119//-1	NTE519
# D701 Thru			
# D704	1S1887A	RH-DX0154CEZZ	NTE552
# D705	1SS119	VHD1SS119//-1	NTE519
# D706	-	RH-EX0238CEZZ	NTE5093A
# D707	S6785G	VHSS6785GLB2E	NTE5424%
# D709, 10	EU-1	RH-DX0131CEZZ	NTE552
# D711	-	RH-DX0444CEZZ	-
# D751	-	RH-DX0441CEZZ	NTE116
D752	-	RH-EX0019TAZZ	NTE5022A
# D754, 55, 56	-	RH-DX0441CEZZ	NTE116
D757	1SS119	VHD1SS119//-1	NTE519
D758	-	RH-DX0441CEZZ	NTE116
D881, 82, 84	1SS119	VHD1SS119//-1	NTE519
D2001, 02	1SS119	VHD1SS119//-1	NTE519
D2003, 04	-	RH-EX0296CEZZ	NTE5011T1
D2101	-	RH-EX0296CEZZ	NTE5011T1
D2201, 02	-	RH-PX0383CEZZ	-
D3203, 04	1SS119	VHD1SS119//-1	NTE519
IC101	KIA78S05P	VHiKA78S05P-1	NTE977
# IC201	TA1201BN	RH- iX2701CEZZ	-
IC352	TDA7233	VHiTDA7233/-1	-
# IC501	-	RH-iX1011CEZZ	-
# IC701	T8150	RH-iX0758CEZZ	-
# IC702	T8889A	VHiT8889A//-1	-
# IC751	KIA7809Pi	VHiKA7809Pi-1	NTE1966
IC2001	TMP87CM34BN	RH-iX2717CEZZ	-
IC2701	ST24C01B6	RH-iX2448CEN1	-
IC2702	PST994C	VHiPST994C/-1	-
IC3101	TC4052BF	VHiTC4052BF-1	NTE4052BT
IC3201	M5222P	VHiM5222P//-1	-
Q201	2SC2735	VS2SC2735//1E	NTE2402
Q301, 54	2SC2462	VS2SC2462-C-1	NTE2408
Q401	2SC2462	VS2SC2462-C-1	NTE2408
Q402	2SA812	VS2SA812-M51E	NTE2409
Q403	2SC2462	VS2SC2462-C-1	NTE2408

Item No.	Type No.	Mfr. Part No.	NTE Part No.
Q433	2SA812	VS2SA812-M51E	NTE2409
Q451, 53, 54	2SC2462	VS2SC2462-C-1	NTE2408
Q601	2SC2655(Y)	VS2SC2655Y/-1	NTE293
# Q602	2SD1556	VS2SD1556//1E	NTE2331
Q606	2SC2462	VS2SC2462-C-1	NTE2408
# Q751	2SC1983	VS2SC1983//-2	NTE56
Q752	2SC3198(Y)	VS2SC3198-Y-1	NTE85
Q753	2SA1013	VS2SA1013//1E	NTE32
Q851	2SC3198	VS2SC3198-Y-1	NTE85
Q852	2SC3619	VS2SC3619LB1E	NTE2501
Q853	2SC3198	VS2SC3198-Y-1	NTE85
Q854	2SC3619	VS2SC3619LB1E	NTE2501
Q855	2SC3198	VS2SC3198-Y-1	NTE85
Q856	2SC3619	VS2SC3619LB1E	NTE2501
Q881	2SA1266	VS2SA1266-Y-1	NTE290A
Q2001	2SC2462	VS2SC2462-C-1	NTE2408
Q3202, 03, 04	2SC2462	VS2SC2462-C-1	NTE2408
Item No.	Function/Rating	Mfr. Part No.	Notes
C52	22µF 10% 16V Tantalum	VCSATA1CE226K	-
# C510	1000µF 20% 35V	VCEAGA1VW108M	-
C515	2.2µF 16V 10% Tantalum	VCSATA1CE225K	-
# C607, 08	.0062 1.6kV	VCFPDP3CA622H	-
# C701	.22 250VAC	RC-FZ012SGEZZ	-
C702, 03	.01 +80% -10% 250VAC	RC-KZ0029CEZZ	-
# C705	680µF +80% -10% 200V	RC-EZ0394CEZZ	-
# C706	.0033 +80% -20% 250VAC	RC-KZ0311CEZZ	-
C709	.01 +80% -20% 250VAC	RC-QZ0010CEZZ	-
# C713	220µF 20% 160V	VCEAGW2CW227M	-
# C715	.01 10% 50V	RC-QZA103TAYK	-
C854	.01 +80% -10% 2kV	RC-KZ0024CEZZ	-
CF301	Filter	RFiLC0029TAZZ	4.5MHz
CF302	Filter	RFiLC0267CEZZ	4.5MHz
CF401	Trap	RFiLC0013CEZZ	4.5MHz
CF631	Crystal	RFiLA0034CEZZ	503kHz
CF2002	Filter	RFiLC0121GEZZ	-
# DY601	Yoke	RCiLH0081MEZZ	-
	Yoke	RCiLH0079MEZZ	-
# F701	Fuse	QFS-B4023CEZZ	4Amp
FB601	Ferrite Bead	RBLN-0037CEZZ	-
FB701	Ferrite Bead	RBLN-0037CEZZ	-
FH701	Fuse Holder	QFSDH1013CEZZ	For F701
FH702	Fuse Holder	QFSDH1014CEZZ	For F701
J1001	Jack	QJAKE0053GEZZ	Video Input
J1003	Jack	QJAKE0055GEZZ	Audio Input
L203	1.2µH	VP-XF1R2K0000	-
L206	VCO	RCiLi0588CEZZ	-
L301	8.2µH	VP-XF8R2K0000	-
L302	SIF	RCiLi0605CEZZ	-
L401	6.8µH	VP-XF6R8K0000	-
L402	3.3µH	VP-XF3R3K0000	-
L403, 04	8.2µH	VP-XF8R2K0000	-

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes
L452	68µH	VP-XF680K0000	-
L601	Horizontal Linearity	RCiLZ0621CEZZ	-
# L701	Line Choke	RCiLF0087CEZZ	-
# L702	Degaussing	RCiLG0007MEZZ	-
L851	82µH	VP-MK820K0000	-
L2001	Oscillator	RCiLB0131CEZZ	-
# P703	Line Cord	QACCD3036CESA	AC, Polarized
# PR701	PTC	RMPTP0026CEZZ	-
# R51	33K 5% 3W	VRS-RG3LB333J	-
# R53	150 5% 2W	VRS-RG3DB151J	-
# R362	5.6 5% 1/2W	VRD-RM2HD5R6J	-
# R451	10K 5% 1/2W	VRS-RG2HC103J	-
# R458	3300 5% 2W	VRS-RG3DB332J	-
# R466	2.7 5% 1W	VRN-RL3AB2R7J	-
# R467	.56 5% 1W	VRN-RL3ABR56J	-
# R468	4.7 5% 1W	VRN-RL3AB4R7J	-
R501	120K 2% 1/8W	VRD-RA2BE124G	-
R502	100K 2% 1/8W	VRD-RA2BE104G	-
# R511	.56 5% 1W	VRN-RL3ABR56J	-
# R603	22 5% 3W	VRS-RG3LB220J	-
# R604	.56 5% 3W	VRN-RL3LBR56J	-
# R609	22 5% 3W	VRS-RG3LB220J	-
# R610	.56 5% 3W	VRN-RL3LBR56J	-
# R651	27 5% 1/2W	VRS-RG2HC270J	-
# R652	12K 5% 1/8W	VRD-RA2BE122J	-
# R653	8200 1% 1/8W	VRN-RABK822F	-
# R654	6800 1% 1/8W	VRN-RABK682F	-
# R655	100K 5% 1/8W	VRD-MN2BE104J	-
# R701	2.7M 10% 1/2W	VRC-UA2HG275K	-
# R702	1.2 10% 7W	VRW-KQ3NC1R2K	-
# R706	150 5% 1/2W	VRS-RG2HC151J	-
# R707	330 10% 5W	VRW-KQ3HC331K	-
# R708	33 5% 1/2W	VRD-RM2HD330J	-
# R711	1 5% 1/4W	VRN-GA2EB1R0J	-
# R714	3.3 10% 10W	VRW-KQ4AC3R3K	-
# R715	2.7 10% 15W	VRW-KQ41C2R7K	-
# R717	1 5% 1/4W	VRN-GA2EB1R0J	-
# R718	12 5% 1W	VRS-RG3AB120J	-
# R719	.56 5% 2W	VRN-RL3DBR56J	-
# R752	4700 5% 1/8W	VRD-MN2BE472J	-
# R755	27 5% 2W	VRS-RG3DB270J	-
# R857, 65, 73	12K 5% 3W	VRS-VV3LB123J	-
R3216, 17	10K 1% 1/10W	VRS-TV1JD103F	-
RMC2601	Receiver	RRMCU0224CEZZ	Remote
# RY701	Relay	RRLYU0036CEZZ	Power
S501	Switch	QSW-B0015CEZZ	Vertical Linearity
S2501	Switch	QSW-K0079GEZZ	Power
S2502	Switch	QSW-K0079GEZZ	Volume Down
S2503	Switch	QSW-K0079GEZZ	Volume Up
S2504	Switch	QSW-K0079GEZZ	Channel Down
S2505	Switch	QSW-K0079GEZZ	Channel Up

Item No.	Function/Rating	Mfr. Part No.	Notes
SC851	Socket	QSOCV0929CEZZ	CRT
SF201	Filter	RFi LC0236CEZZ	SAW
SP2	Speaker	VSP0080PBK98A	8 Ohms
# T601	Horizontal Drive	RTRNZ0168CEZZ	-
# T602 (1)	Horizontal Output	RTRNF0016MEZZ	-
# T701	Power	RTRNP0416CEZZ	-
# TU51	Tuner	VTUVTSR6UF78/	-
# V101	CRT (2)	VB63LAV61X/*S	-
	CRT (3)	VB63AFW32X/*S	-
X801	Crystal	RCRSB0001PEZZ	3.58MHz
	Magnet	PMAGF3004MEZZ	Purity/Convergence
	PC Board	DUNTK8639WEK3	A/V
	PC Board	DUNTK8604WEK8	CRT
	PC Board	DUNTK9000WEK6	Main
	Transmitter	RRMCG1236CESA	Remote
	Wedge	PSPAG0012MEZZ	Yoke Positioning (3 Used)

For SAFETY use only equivalent replacement part.

% Use Insulating hardware supplied with replacement.

(1) Screen and focus controls are part of T602.

(2) Use yoke Part Number RCiLH0081MEZZ.

(3) Use yoke Part Number RCiLH0079MEZZ.

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.