

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.

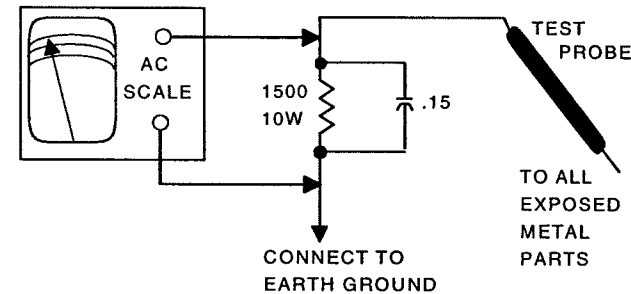
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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

Apply 120VAC, turn the receiver on, and set all customer controls for normal operation. Measure the voltage at TP7. Voltage should measure between 16.5V and 21.0V. If voltage exceeds this range the circuit must be repaired. Momentarily connect a jumper between TP7 and the cathode of D421. 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 AC power for 30 seconds and then restore AC power.

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

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SET 4500

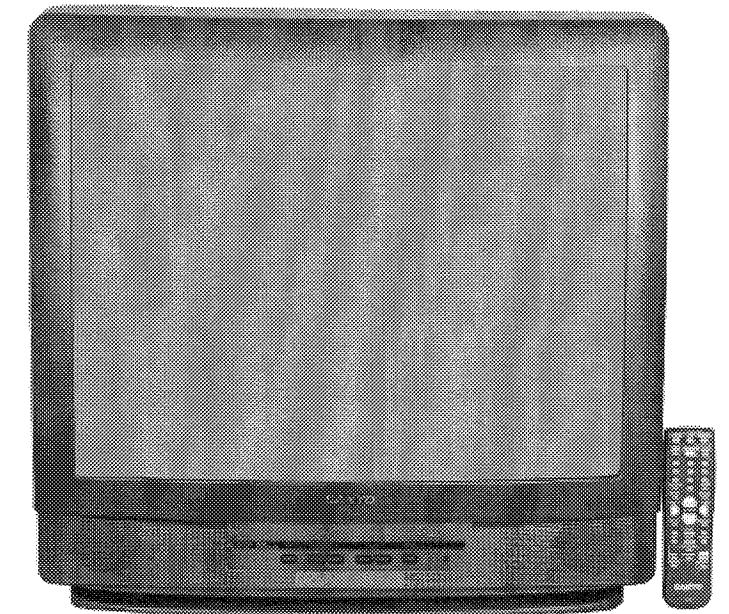
MODEL DS27800 (CHASSIS 27800-00)

SANYO

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SANYO Model DS27800 (Chassis 27800-00)

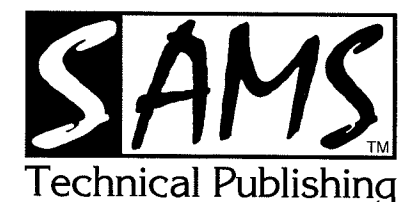


Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

Coverage includes this additional model and chassis:

Model	Chassis
AVM-3650G	G5D-3650G0



OCTOBER 2001 SET 4500

For Supplier Address,
See PHOTOFACT Annual Index

MISCELLANEOUS ADJUSTMENTS

B+ CHECK

Connect a digital DC voltmeter to the cathode of D625. Set brightness and picture to minimum. With AC line set to 120VAC, B+ should read 135V ±2.0V.

HIGH VOLTAGE CHECK

Tune in a picture. Set customer controls to minimum. Connect a high voltage probe to CRT anode. High voltage should measure 28kV to 30kV.

ENTERING SERVICE MODE

Disconnect the AC power cord. While pressing the menu button on the front of the set, connect the AC power cord. Use the channel up and down buttons to select the service number. Use volume up and down buttons to change the value. Press the menu button to exit the service mode.

HORIZONTAL POSITION

Tune in a crosshatch pattern. Enter the service mode and select service item number 01 HP. Adjust for the best horizontal centering.

RF AGC DELAY

Tune in a picture. Enter the service mode and select service number 03 RAD. Adjust where no snow (noise) appears in picture.

VERTICAL SIZE

Tune in a crosshatch pattern. Enter the service mode and select service item number 07 VS. Adjust for proper vertical size and best vertical linearity.

VERTICAL CENTERING

Tune in a crosshatch pattern. Check that the pattern is centered. If too low, install resistor R513 (470 ohms 1W). If too high, install resistor R512 (470 ohms 1W).

GRAY SCALE

Tune in an active channel. Enter the service mode. Set the value of service numbers 08 RB, 09 GB, and 10 BB to 0. Set the value of service numbers 11 RD and 12 BD to 55. Set screen control, color, brightness, and picture to minimum. Adjust screen control, if necessary, to obtain a barely visible horizontal line. Select service number 48. Adjust the bias levels for a white line. Select service number 47 DRV and adjust the drive values for normal black and white picture at all brightness levels.

SUB BRIGHTNESS

Tune in a color bar pattern. Set picture and brightness to normal. Connect positive lead of a digital voltmeter to TP51 and the negative lead to TP50. Enter the service mode and select service number 25 SB. Adjust for 790mV ±10mV.

SUB COLOR, SUB TINT, SUB SHARPNESS

Tune in a picture. Enter the service mode. Select service number 26 SCO. Adjust for normal color level. Select service number 27 STI. Adjust for normal flesh tones. Select service number 28 SSH. Adjust for contrast range.

OSD HORIZONTAL POSITION

Tune in a local channel. Enter the service mode and select service item number 31 HR. Adjust for centered on screen menu.

VIDEO LEVEL

Tune in a color bar pattern. Set picture and brightness to normal. Connect an oscilloscope to TP16A and the negative lead to ground. Enter the service mode and select service number 16 VL. Adjust for 2.0Vp-p ±0.2Vp-p waveform on the oscilloscope.

SOUND

Tune in a local channel. Connect positive lead of a digital voltmeter to TP20 and the negative lead to ground. Adjust T131 for 3.85V ±0.2V.

INPUT LEVEL

Set generator to 1kHz audio frequency and L-R modulating signal. Connect an oscilloscope to pin 7 of IC3401. Enter service mode and select the service item number 32 ATT. Adjust for 0.7Vp-p waveform.

SEPARATION

Set generator to pilot, 300Hz audio frequency, and left modulating signal. Connect an oscilloscope to pin 25 of IC3401 and ground. Enter the service mode and select service number 35 WDB. Adjust for minimum amplitude of the waveform. Set generator to 8kHz audio frequency. Select service number 36 SPC and adjust for minimum amplitude of the waveform.

CONVERGENCE / PURITY

The deflection yoke is bonded to the CRT. Convergence and purity adjustments are not required.

IC802 REPLACEMENT FOR (DS27800)

Perform the following adjustments after replacing IC802. Enter the service mode, select service number 01 HP and set value to 19. Select service number 14 AF and set value to 1. Select service number 24 AG and set value to 0. Select service number 26 SCO and set value to 7. Select service number 27 STI and set value to 19. Select service number 29 OPT and set value to 80. Select service number 30 OP2 and set value to 55. Select service number 31 HR and set value to 47. Select service number 38 SBO and set value to 3. Select service number 39 PCO and set value to 39. Select service number 40 PTI and set value to 41. Select service number 45 PCN and set value to 44. Press the menu button to exit service mode.

IC802 REPLACEMENT FOR (AVM-3650G)

Perform the following adjustments after replacing IC802. Enter the service mode, select service number 01 HP and set value to 19. Select service number 14 AF and set value to 1. Select service number 21 GD and set value to 8. Select service number 22 VC and set value to 4. Select service number 24 AG and set value to 0. Select service number 26 SCO and set value to 7. Select service number 27 STI and set value to 19. Select service number 28 SSH and set value to 8. Select service number 29 OPT and set value to 16. Select service number 30 OP2 and set value to 39. Select service number 31 HR and set value to 41. Select service number 38 SBO and set value to 3. Press the menu button to exit service mode.

SERVICE MODE ADJUSTMENT CHART

No.	Service Adjustment	Value Range	Initial Value	On-Set Value	Notes
01	HP	0 - 31	19	19	H-Position (H-Centering)
02	IAS	0, 1	0	0	IF AGC Switch, 0 = TV (Normal), 1 = AV (IF Gain Minimum)
03	RAD	0 - 63	25	40	RF AGC Delay
04	PT	0 - 127	64	66	PLL Tuning
05	ADA	0 - 63	31	32	APC Detect
06	CD	0, 1	0	0	C-Diff
07	VS	0 - 63	32	29	Vertical Size
08	RB	0 - 255	0	20	Red Bias
09	GB	0 - 255	0	15	Green Bias
10	BB	0 - 255	0	0	Blue Bias
11	RD	0 - 127	60	70	Red Drive
12	BD	0 - 127	60	60	Blue Drive
13	TDS	0, 1	0	0	Trap & D (B.P.F.) Switch, 0 = Off, 1 = On
14	AF	0, 1	1	1	Auto Flesh, 0 = Off, 1 = On
15	BS	0, 1	0	0	Black Stretch, 0 = On, 1 = Off
16	VL	0 - 7	4	4	Video Level
17	FL	0 - 31	15	15	FM Level
18	NIS	0, 1	1	1	Black Noise Inverter, 0 = On, 1 = Off
19	ABL	0, 1	1	1	ABL Defeat, 0 = On, 1 = Off
20	WP	0, 1	1	1	White Peak, 0 = On, 1 = Off
21	GD	0 - 15	7 (8)*	9	Green Drive Reduction
22	VC	0 - 7	0 (4)*	0	Vert. Comp
23	VD	0 - 63	32	32	Vert. DC
24	AG	0 - 3	0	0	AFC Gain
25	SB	0 - 63	32	32	Sub Brightness
26	SCO	0 - 31	7	7	Sub Color
27	STI	0 - 31	19	19	Sub Tint
28	SSH	0 - 15	8 (6)*	8	Sub Sharpness
29	OPT	0 - 255	80	80	Option, data 1 should be set to "80", in binary 8 bit 01010000 (Model DS27800)
	OPT	0 - 255	(16)*	16	Option, data 1 should be set to "16", in binary 8 bit 00010000 (Model AVM-3650G)
30	OP2	0 - 255	55	55	Option, data 2 should be set to "55", in binary 8 bit 00110111 (Model DS27800)
	OP2	0 - 255	(39)*	39	Option, data 2 should be set to "39", in binary 8 bit 00100111 (Model AVM-3650G)
31	HR	0 - 63	47 (41)*	45	OSD Horizontal Position
32	ATT	0 - 15	15	6	Attenuation
33	STE	-	-	-	Not used
34	FIL	-	-	-	Not used
35	WDB	0 - 63	32	43	Wide Band
36	SPC	0 - 63	32	21	Spectral
37	SPV	-	-	-	Not used
38	SBO	0 - 255	3	0	Sub Bright Offset
39	PCO	0 - 127	39 (42)*	39	PIP Color
40	PTI	0 - 63	41 (36)*	41	PIP Tint
41	PUV	0 - 255	24	24	PIP Upper Vertical Position
42	PDV	0 - 255	147	147	PIP Lower Vertical Position
43	PLH	0 - 255	9	9	PIP Left Side Horizontal Position
44	PRH	0 - 255	99	99	PIP Right Side Horizontal Position
45	PCN	0 - 127	44 (47)*	44	PIP Contrast
46	PBS	0 - 63	14	14	PIP Burst Gate Position
47	DRV	0 - 127	60	R 70	Red Drive, press 1 to decrease value and 3 to increase value.
	DRV	0 - 127	60	B 60	Blue Drive, press 7 to decrease value and 9 to increase value.
48	-	0 - 255	0	0	Red Bias, press 1 to decrease value and 3 to increase value.
	-	0 - 255	0	0	Green Bias, press 4 to decrease value and 6 to increase value.
	-	0 - 255	0	0	Blue Bias, press 7 to decrease value and 9 to increase value.
60	R00				
	Thru				
132	R72	0 - 255	-	0	-

* Initial Value in () is for model AVM-3650G.

AUDIO SCHEMATIC

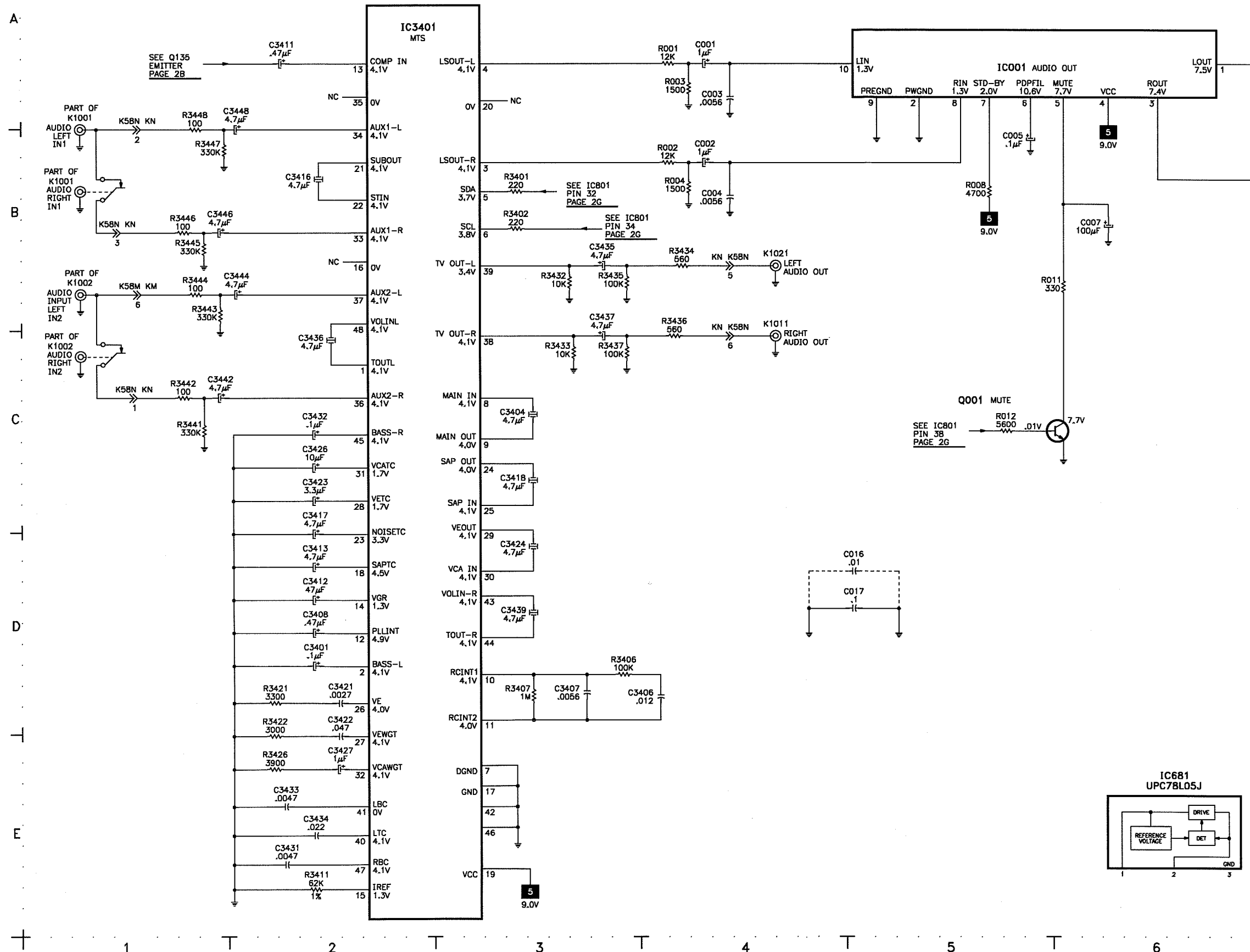
A

B

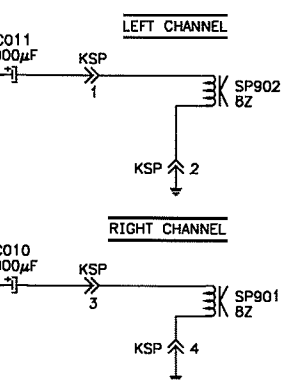
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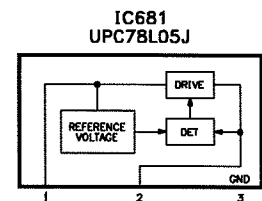
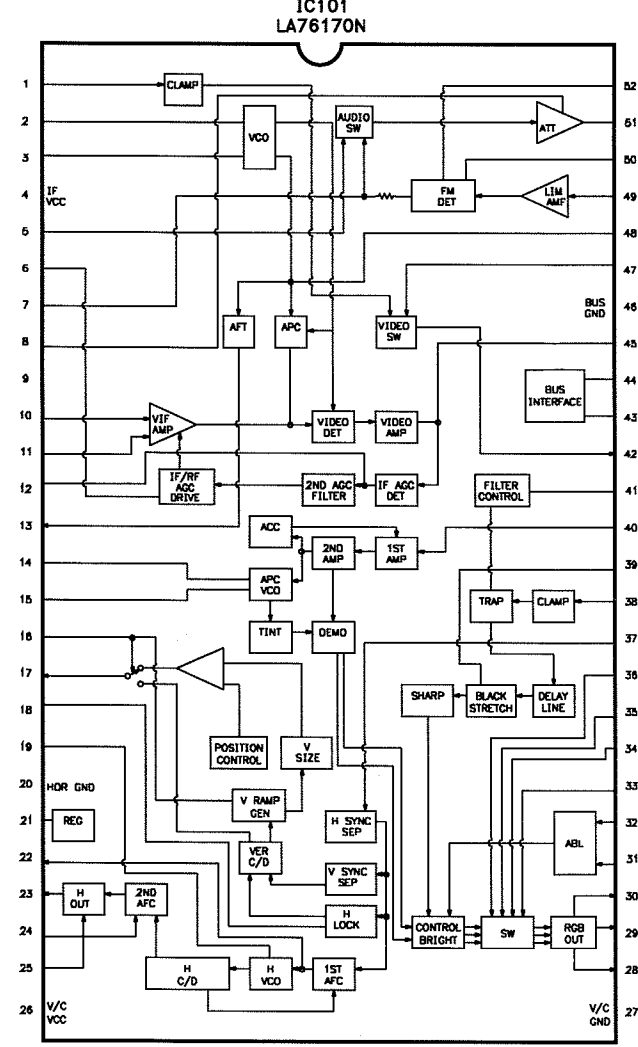
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IC FUNCTIONS



ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2D
 A PHOTOFAC STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE
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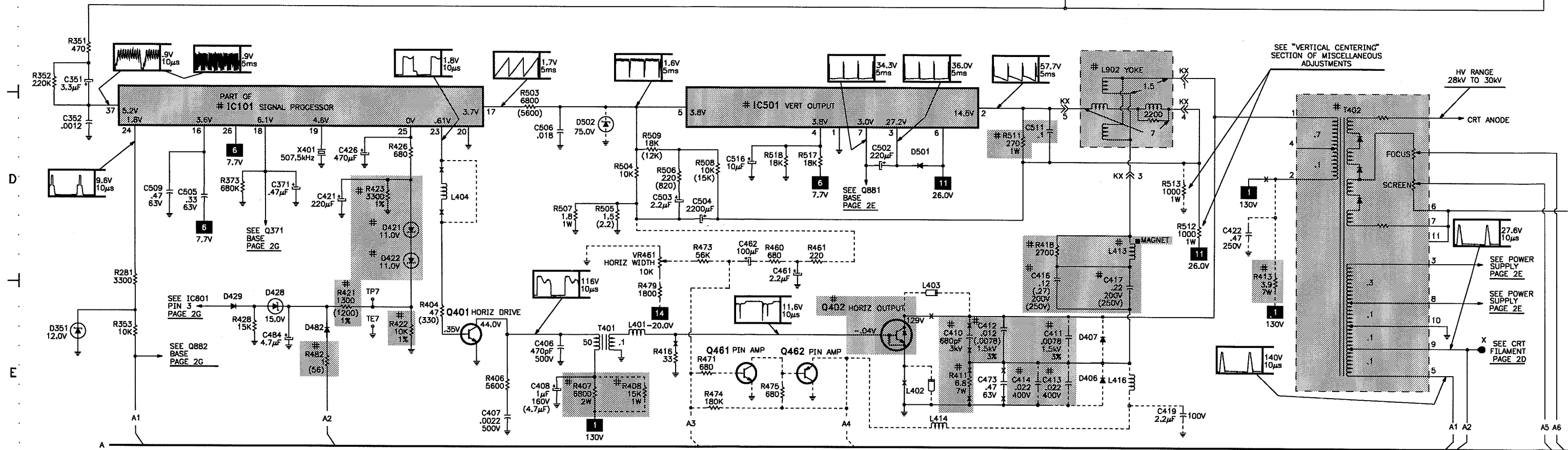
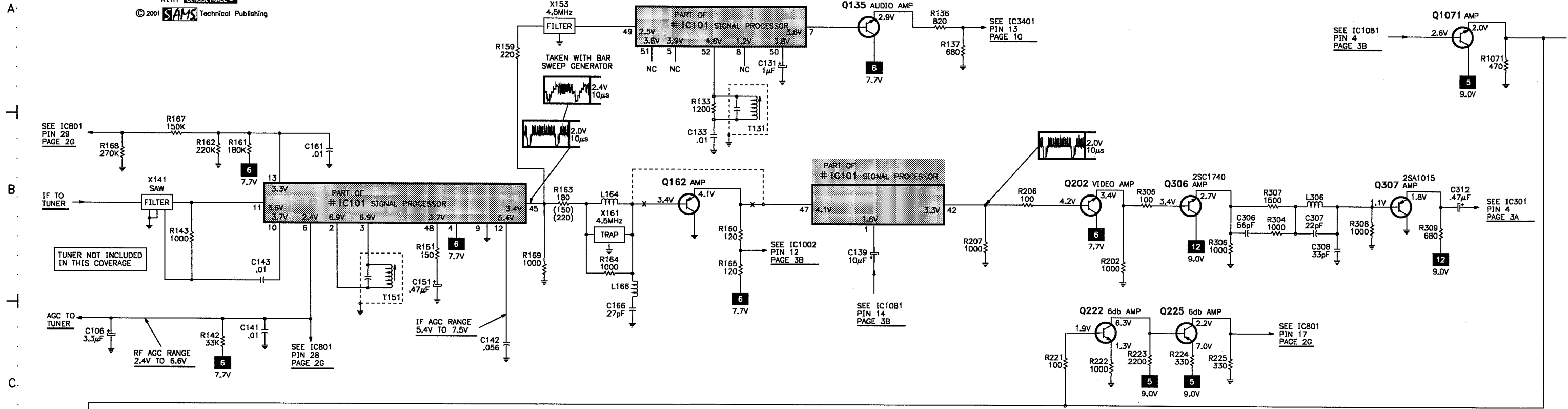
SANYO MODEL DS27800 (CHASSIS 27800-00)

TELEVISION SCHEMATIC

ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2D

A PHOTOFACIT STANDARD NOTATION SCHEMATIC WITH CIRCUITTRACE

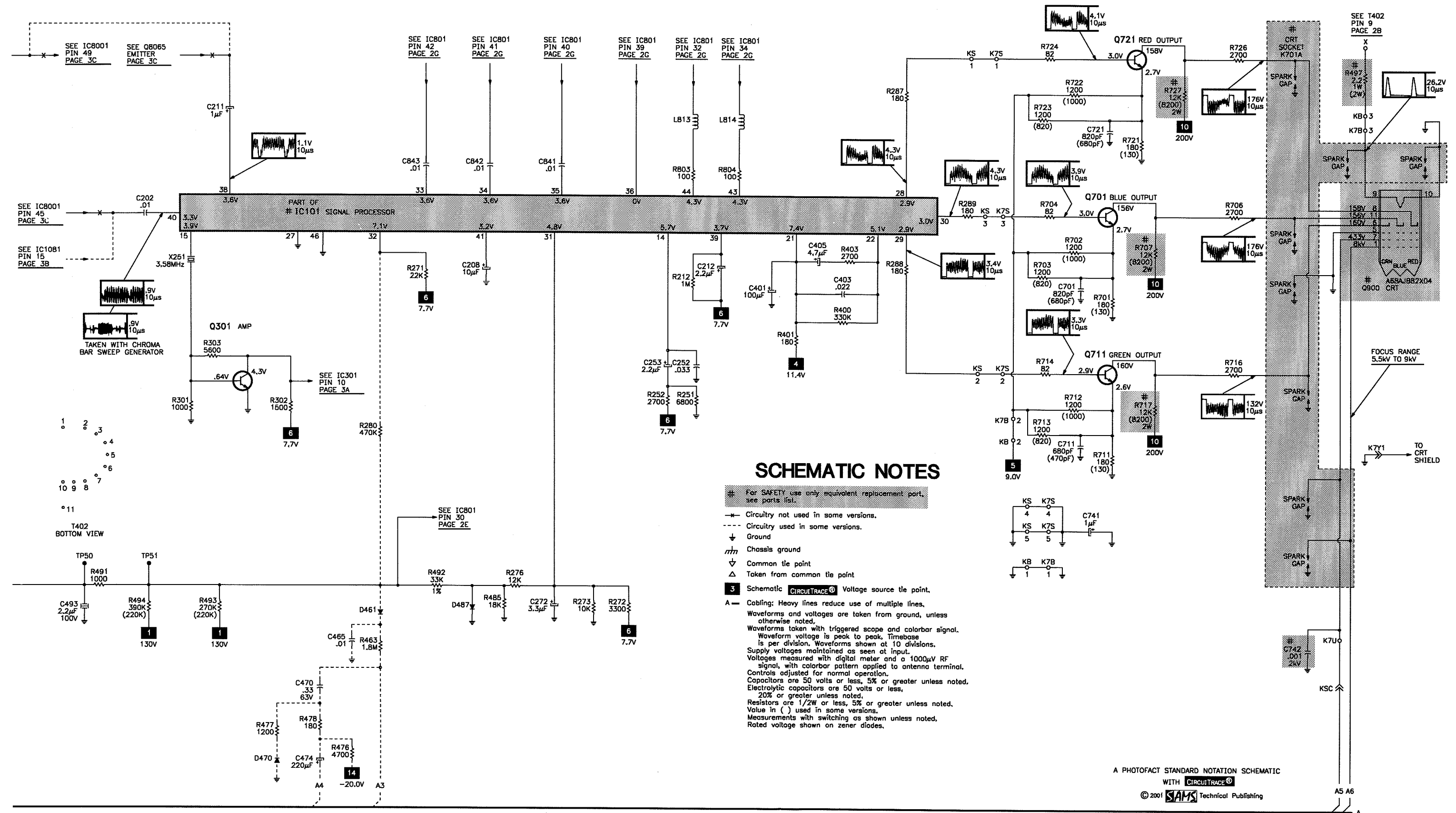
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TELEVISION SCHEMATIC continued

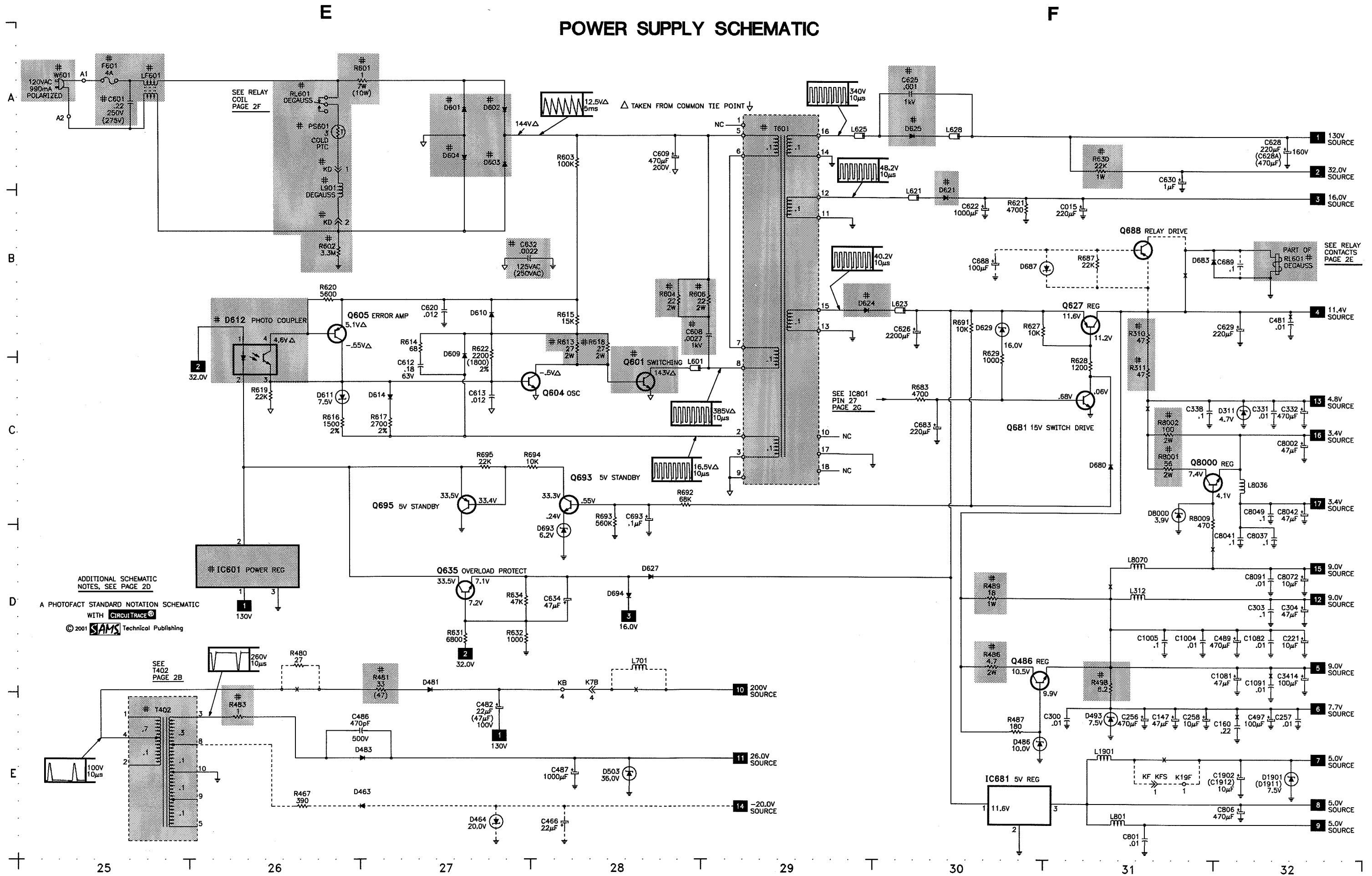
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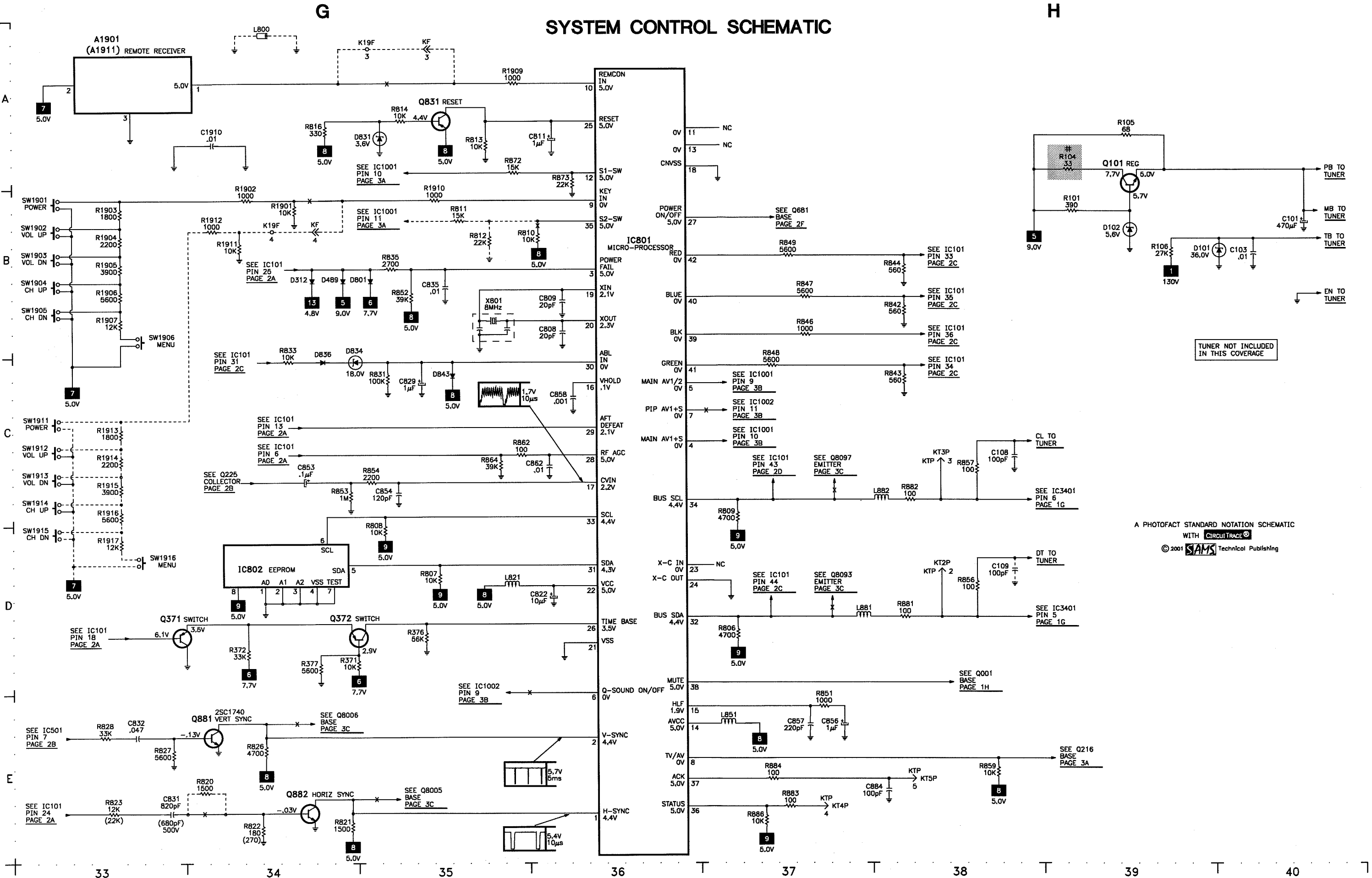
POWER SUPPLY SCHEMATIC



ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2D
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SEE T402 PAGE 2B

SYSTEM CONTROL SCHEMATIC



TUNER NOT INCLUDED
IN THIS COVERAGE

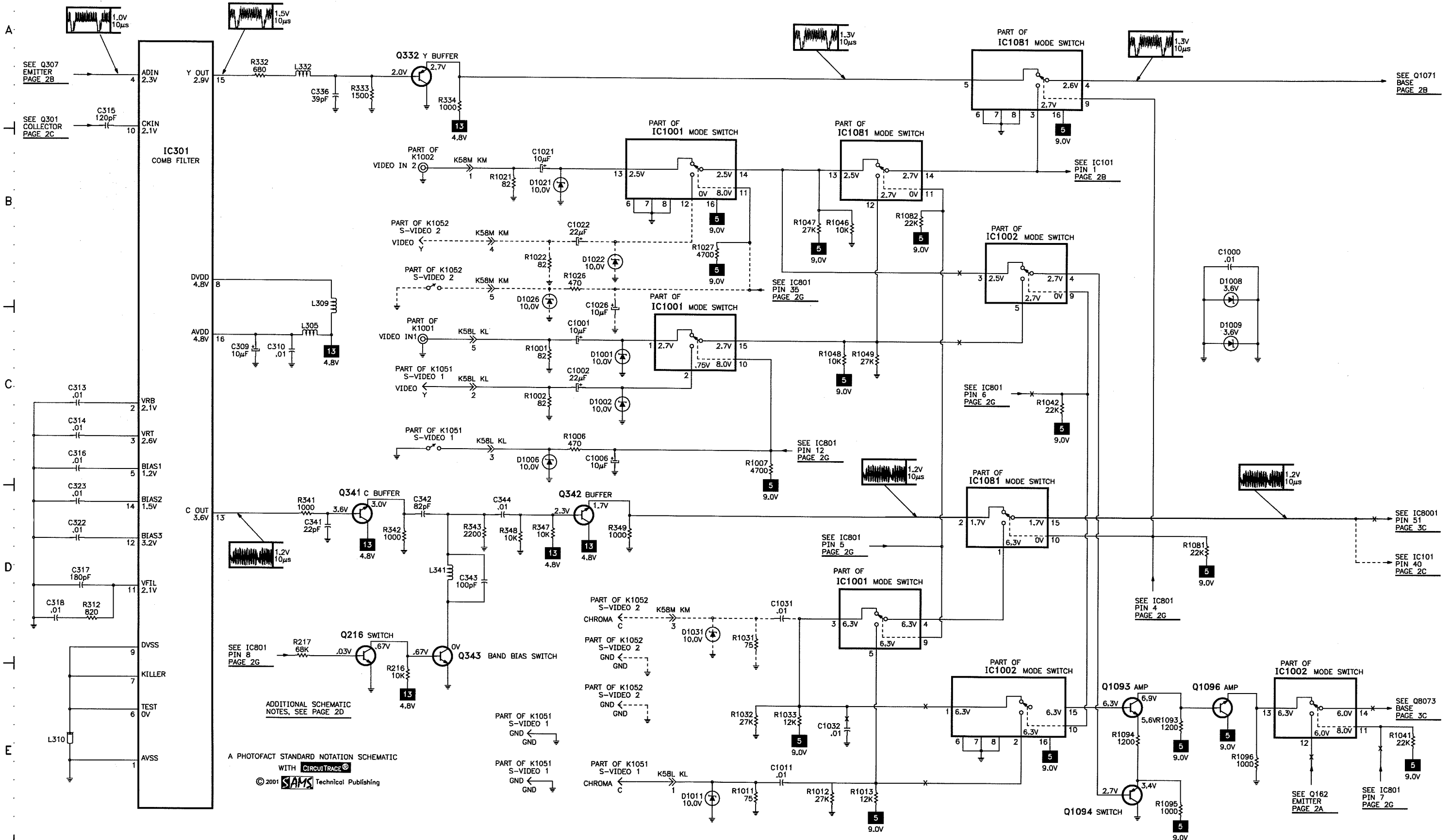
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SANYO
MODEL DS27800 (CHASSIS 27800-00)

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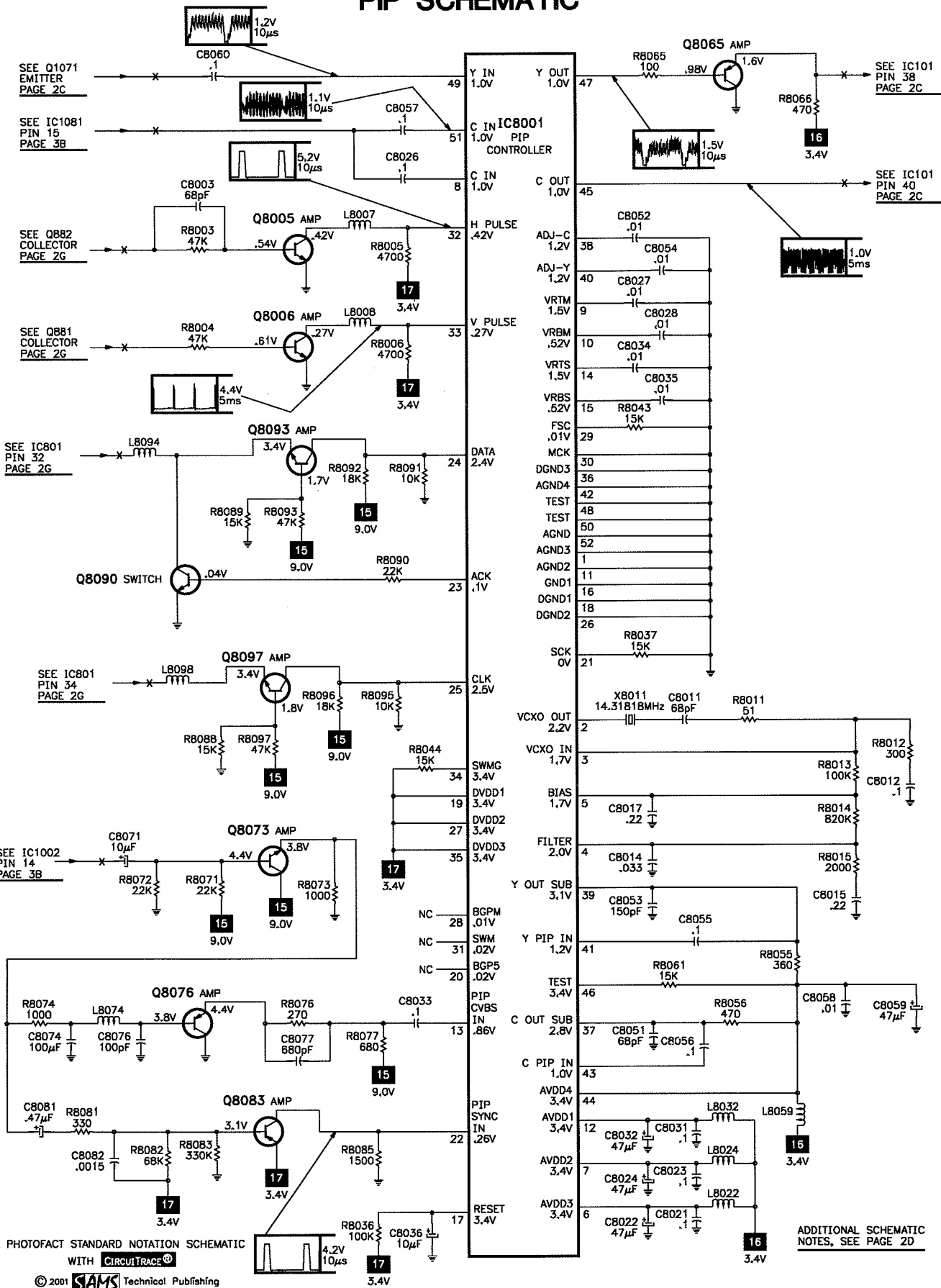
COMB FILTER/VIDEO SWITCHING SCHEMATIC



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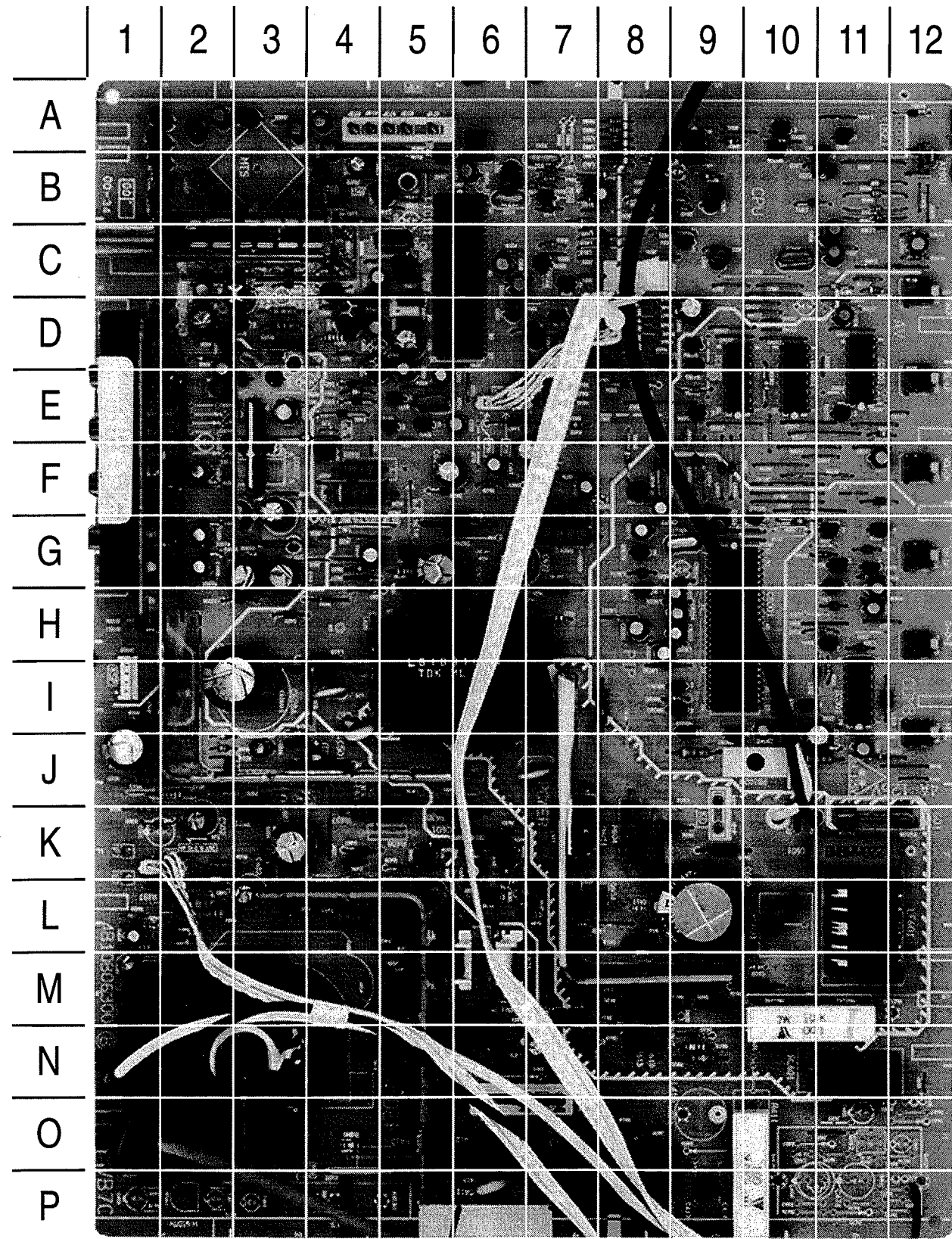
C PIP SCHEMATIC



SCHEMATIC COMPONENT LOCATION GUIDE

A1901	A33	C502	D13	C8011	C51	D1031	D44	Q461	E12	R347	D43	R711	C23	R3401	B3
A1901	A33	C503	D12	C8012	D52	D1901	E32	Q462	E13	R348	D43	R712	C22	R3402	B3
C001	A4	C504	D12	C8014	D51	D8000	D31	Q486	D30	R349	D44	R713	C22	R3406	D3
C002	B4	C505	D9	C8015	D52	F601	A25	Q601	C28	R351	C9	R714	C22	R3407	D3
C003	A4	C506	D11	C8017	D51	IC001	A5	Q604	C27	R352	C9	R716	C23	R3411	E2
C004	B4	C509	D9	C8021	E51	IC101	A12	Q605	B26	R353	E9	R717	C23	R3421	D2
C005	B5	C511	D14	C8022	E51	IC101	B10	Q627	B31	R371	D34	R721	B23	R3422	E2
C007	B6	C516	D12	C8023	E51	IC101	B13	Q635	D27	R372	D34	R722	A22	R3426	B2
C010	B6	C601	A25	C8024	E51	IC101	B18	Q681	C31	R373	D10	R723	B22	R3432	E3
C011	A6	C608	B29	C8026	A50	IC101	D10	Q688	B31	R376	D35	R724	A22	R3433	C3
C015	B31	C609	A28	C8027	B51	IC301	D12	Q693	C28	R377	D34	R726	A23	R3434	B4
C016	D4	C612	C27	C8028	B51	IC501	B41	Q695	C27	R400	C21	R727	A20	R3435	B3
C017	D4	C613	C27	C8031	E51	IC501	D12	Q701	B23	R401	C21	R803	A23	R3436	C4
C101	B40	C620	B27	C8032	E51	IC601	E30	Q711	C23	R403	B21	R804	B21	R3437	C3
C103	B40	C622	B30	C8033	D50	IC801	B36	Q721	A23	R404	E11	R806	D37	R3441	C1
C106	C9	C625	A30	C8034	B51	IC802	D34	Q831	A35	R406	E11	R807	D35	R3442	C1
C108	C38	C626	B30	C8035	B51	IC1001	B44	Q881	E34	R408	E11	R808	D35	R3443	C1
C109	D38	C628	A32	C8036	E50	IC1001	C44	Q882	E34	R408	E12	R809	C37	R3444	B1
C131	A12	C629	B32	C8037	D32	IC1001	D45	Q900	B24	R411	E13	R810	B36	R3445	B1
C133	B12	C630	B31	C8041	D32	IC1002	B46	Q1071	A16	R413	E15	R811	B35	R3446	B1
C139	B13	C632	B27	C8042	C32	IC1002	E46	Q1093	E47	R416	E12	R812	B35	R3447	B1
C141	C10	C634	D28	C8049	C32	IC1002	E48	Q1094	E47	R418	D14	R813	A35	R3448	B1
C142	C11	C683	C30	C8051	D51	IC1081	A46	Q1096	E47	R421	E10	R814	A35	R8001	C31
C143	C10	C688	B30	C8052	B51	IC1081	B45	Q8000	C31	R422	E11	R816	A34	R8002	C31
C147	E31	C689	B32	C8053	D51	IC1081	D46	Q8005	B50	R423	D10	R821	E34	R8003	B49
C151	B11	C693	D28	C8054	B51	IC3401	A2	Q8006	B50	R426	D11	R821	E34	R8004	B49
C160	E32	C701	B22	C8055	D51	IC8001	A50	Q8065	A51	R428	D10	R822	E34	R8005	B50
C161	B10	C711	C22	C8056	E51	K1001	B1	Q8073	D50	R460	D12	R823	E33	R8006	B50
C166	C12	C721	B23	C8057	A50	K1001	C43	Q8076	D49	R461	D13	R826	E34	R8009	D31
C202	B17	C741	D22	C8058	D52	K1002	B1	Q8083	E49	R463	D19	R827	E33	R8011	C51
C208	B19	C742	D24	C8059	D52	K1002	B43	Q8090	C49	R467	E26	R828	E33	R8012	C52
C211	A18	C801	E31	C8060	A49	K1011	B4	Q8093	B50	R471	E12	R831	C35	R8013	D52
C212	B20	C806	E32	C8071	D49	K1021	C4	Q8097	C50	R473	D12	R833	C34	R8014	D52
C221	D32	C808	B36	C8072	D32	K1051	C43	R001	A4	R474	E12	R835	B35	R8015	D52
C252	C20	C809	B36	C8074	D49	K1051	C43	R002	B4	R475	E12	R842	B38	R8036	E50
C253	C20	C811	A36	C8076	D49	L164	B11	R003	A4	R476	E18	R843	C38	R8037	C51
C256	E31	C822	D36	C8077	E50	L166	C12	R004	B4	R477	E18	R844	B38	R8043	B51
C257	E32	C829	C35	C8081	E49	L305	C42	R008	B5	R478	E18	R846	B37	R8044	D50
C258	E31	C831	E33	C8082	E49	L306	B15	R011	B5	R479	E12	R847	B37	R8055	D51
C272	D19	C832	E33	C8091	D32	L309	C42	R012	C5	R480	D26	R848	C37	R8056	D51
C300	E31	C835	B35	D101	B39	L310	E41	R101	B39	R481	E27	R849	B37	R8061	D51
C303	D32	C841	B20	D102	B39	L312	D31	R104	B39	R482	E10	R851	E37	R8065	A51
C304	D32	C842	B19	D111	C32	L332	A42	R105	A39	R483	E26	R852	B35	R8066	A52
C306	B15	C843	B19	D112	B34	L341	D43	R106	B39	R485	D19	R853	C34	R8071	D49
C307	B15	C853	C34	D351	E9	L401	E12	R133	B12	R486	D30	R854	C35	R8072	D49
C308	B15	C854	C35	D406	E14	L402	E13	R136	A13	R487	E30	R856	D38	R8073	D50
C309	C42	C856	E37	D407	E14	L403	E13	R137	A13	R489	D30	R857	C38	R8074	D49
C310	C42	C857	E37	D421	D11	L404	D11	R142	C10	R491	D17	R859	E38	R8076	D50
C312	B16	C858	C36	D422	D11	L413	D14	R143	B9	R492	D19	R862	C35	R8077	E50
C313	C41	C862	C36	D428	E10	L414	E13	R151	B11	R493	D18	R864	C35	R8081	E49
C314	C41	C884	E38	D429	E10	L416	E14	R159	A11	R494	D17	R872	B35	R8082	E49
C315	B41	C1000	B47	D461	D19	L601	C28	R160	B12	R497	A24	R873	B36	R8083	E49
C316	C41	C1001	C44	D463	E26	L621	B30	R161	B10	R498	D31	R881	D38	R8085	E50
C317	D41	C1002	C44	D464	E27	L623	B30	R162	B10	R498	D31	R882	C38	R8088	C49
C318	D41	C1004	D31	D470	E18	L625	A29	R163	B11	R504	D12	R883	E37	R8089	C49
C322	D41	C1005	D31	D481	E17	L628	A30	R164	B11	R505	D12	R884	E37	R8090	C50
C323	D41	C1006	C44	D482	E10	L701	D28	R165	B12	R506	D12	R886	E37	R8091	B50
C331	C32	C1011	E45	D483	E26	L800	A34	R167	B9	R507	D11	R1001	C43	R8092	B50
C332	C32	C1021	B43	D486	E30	L801	E31	R168	B9	R508	D12	R1002	C43	R8093	C50
C336	A42	C1022	B44	D487	D19	L813	B20	R169	B11	R509	D12	R1006	C43	R8095	C50
C338	C31	C1026	C44	D489	B34	L814	B21	R202	B14	R511	D14	R1007	C45	R8096	C50
C341	D42	C1031	D45	D493	E31	L821	D35	R206	B14	R512	D15	R1011	E45	R8097	C50
C342	D43	C1032	E45	D501	D13	L851	E37	R207	B13	R513	D15	R1012	E45	RL601	A26
C343	D43	C1081	D32	D502	D12	L881	D37	R212	B20	R517	D13	R1013	E45	RL601	B32
C344	D43	C1082	D32	D503	E28	L882	C37	R216	E43	R518	D12	R1021	B43	SP901	B7
C351	C9	C1091	D32	D601	A27	L901	B26	R217	E42	R601	A26	R1022	B43	SP902	A7
C352	D9	C1902	E32	D602	A27	L902	D14	R221	C14	R602	B26	R1026	C43	SW1901	B33
C371	D10	R1910	A34	D603	A27	L9101	E31	R222	C14	R603	A26	R1027	B44	SW1902	B33
C401	B21	C3401	D2	D604	A27	L8007	B50	R223	C14	R604	B28	R1031	D45	SW1903	B33
C403	C21	C3404	C3	D609	C27	L8008	B50	R224	C15	R606	B29	R1032	E45	SW1904	B33
C405	B21	C3406	D4	D610	B27	L8022	E51	R225	C15	R613	C28	R1033	E45	SW1905	B33
C406	E11	C3407	D3	D611	C26	L8024	E51	R251	C20	R614	C27	R1041	E48	SW1906	C33
C407	E11	C3408	D2	D612	B26	L8032	E51	R252	C20	R615	B28	R1042	C46	SW1911	C33
C408	E11	C3411	A2	D612	C26	L8036	C32	R271	B19	R616	C26	R1046	B45	SW1912	C33
C410	E13	C3412	D2	D612	C26	L8059	E51	R272	D20	R617	C27	R1047	B45	SW1913	C33
C411	E14	C3413	D2	D614	C27	L8070	D31	R273	D20	R618	C28	R1048	C45	SW1914	C33
C412	E14	C3414	D32	D621	B30	L8074	D49	R276	D19	R619	C26	R1049	C45	SW1915	D33
C413	E14	C3416	B2	D624	B29	L8094	B49	R280	C19	R620	B26	R1071	A16	SW1916	D33
C414	E14	C3417	D2	D625	A30	L8098	C49	R281	E9	R621	B30	R1081	D47	T131	B12
C416	D14	C3418	C3	D627	D28	LF601	A25	R287	A21	R622	C27	R1082	B45	T151	B10
C417	E14	C3421	D2	D629	B30	PS601	A26	R288	B21	R627	B30	R1093	E47	T401	E11
C419	E15	C3422	E2	D680	C31	Q001	C5	R289	B22	R628	C31	R1094	E4		

MAIN BOARD - TOP VIEW

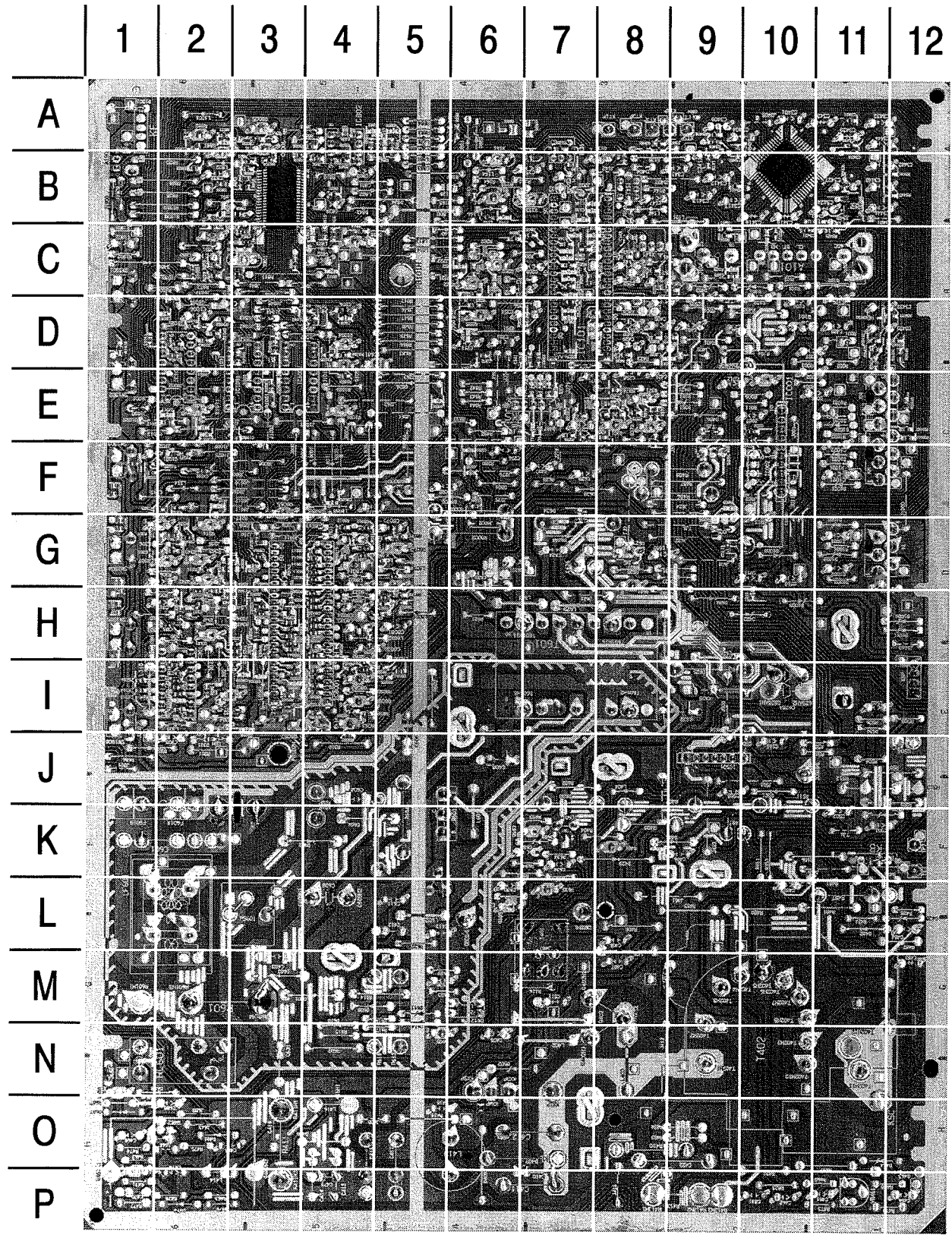


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A101	C2	C632	I4	D610	N9	L1901	C11	R159	B7	R632	L6
A1901	B12	C634	K6	D611	M8	L8007	F9	R160	B7	R634	K6
C001	D2	C683	G4	D612	M7	L8008	F9	R164	B7	R683	D8
C002	D2	C693	K6	D614	N8	L8022	G9	R165	B7	R691	G4
C005	E2	C806	D9	D621	G7	L8024	H9	R167	B8	R692	J6
C007	E3	C811	B8	D624	G6	L8032	H8	R202	C7	R693	K6
C010	G3	C822	C9	D625	I4	L8036	I8	R206	C6	R694	K6
C011	G3	C829	B9	D627	G4	L8059	F9	R217	G10	R695	L7
C015	F3	C831	P3	D629	F5	L8070	F9	R281	E4	R810	B9
C101	C3	C832	B11	D680	G4	L8074	G8	R306	G11	R823	P3
C106	C2	C853	C11	D683	O11	L8094	F9	R309	H11	R828	B11
C131	B6	C856	C11	D693	K6	L8098	F8	R310	J9	R833	E7
C139	B8	C1001	G2	D694	H4	LF601	L11	R311	J11	R835	B11
C141	C7	C1002	G2	D801	F7	PS601	L10	R334	I11	R842	E7
C142	C5	C1006	D11	D831	C9	Q001	E3	R341	I11	R843	E7
C147	B5	C1021	F2	D834	B8	Q101	D3	R342	H11	R844	E7
C151	B6	C1081	F11	D836	E8	Q135	B5	R349	G11	R847	D8
C208	C6	C1902	C12	D843	B8	Q162	B7	R351	D7	R848	D8
C211	D7	C3401	A3	D1001	G2	Q202	C7	R353	K3	R849	D8
C212	C6	C3404	A3	D1002	G2	Q216	G11	R401	D4	R862	B8
C221	D7	C3408	A3	D1006	H1	Q222	C7	R404	K5	R872	C11
C252	C5	C3411	A4	D1008	H3	Q225	D7	R406	L5	R883	A8
C253	C4	C3412	B4	D1009	G3	Q301	E5	R407	K4	R884	A8
C256	F7	C3413	B4	D1011	H1	Q306	G11	R411	O10	R886	A9
C258	E5	C3414	B4	D1021	F2	Q307	G11	R416	M6	R1001	G2
C272	E6	C3416	B3	D1901	A12	Q332	I10	R418	O8	R1002	G2
C304	H11	C3417	B3	D8000	F7	Q341	H11	R421	L2	R1006	C11
C309	J11	C3418	B3	F601	K11	Q342	G11	R422	L1	R1011	G1
C312	H12	C3424	B2	IC001	F3	Q343	G11	R423	D5	R1013	E11
C332	I11	C3427	B2	IC101	B5	Q371	E5	R428	L1	R1021	F2
C351	D6	C3432	A1	IC301	I11	Q372	E5	R481	L2	R1081	E10
C371	E5	C3435	D1	IC501	J4	Q401	K5	R482	L1	R1096	E9
C401	D4	C3436	A2	IC601	K6	Q402	N5	R483	L4	R1901	C12
C403	D5	C3437	D1	IC681	D8	Q486	F4	R486	F4	R1902	C12
C405	D4	C3439	A2	IC802	A9	Q601	K7	R487	F4	R1909	B11
C406	L5	C3442	B1	IC1001	E11	Q604	L7	R489	F4	R1910	B11
C407	M5	C3444	A1	IC1002	E9	Q605	N7	R491	P3	R8001	F7
C408	N7	C3446	B1	IC1081	E10	Q627	G5	R492	E7	R8002	G7
C410	P6	C3448	B1	IC8001	G9	Q635	L6	R493	O4	R8003	A10
C412	O6	C8002	F7	KB	K1	Q681	G5	R494	O4	R8009	G7
C416	P8	C8022	H9	KD	K9	Q693	K6	R497	L2	R8066	F8
C417	P8	C8024	H9	KL	G1	Q695	L6	R498	D3	R8090	I9
C421	D4	C8032	H9	KM	F1	Q831	C9	R503	J2	RL601	N11
C426	D5	C8036	H8	KN	E1	Q881	A11	R504	J2	SW1901	C12
C473	P9	C8042	I10	KS	E6	Q882	A11	R505	K1	SW1902	E12
C482	L3	C8059	G9	KSP	I1	Q1071	E11	R506	I2	SW1903	F12
C484	L1	C8071	G8	KTP	A5	Q1093	D9	R507	J1	SW1904	G12
C486	K4	C8072	F8	KX	O6	Q1094	D9	R508	I1	SW1905	H12
C487	K3	C8081	H8	L164	B7	Q1096	E9	R509	I2	SW1906	I12
C489	D2	D101	C3	L166	B7	Q8000	F8	R511	K3	T131	A6
C493	M1	D102	C2	L305	I11	Q8005	A10	R512	J2	T151	B5
C497	F6	D311	J11	L306	G11	Q8006	A10	R517	J2	T401	M6
C502	K2	D312	J11	L309	H11	Q8065	G10	R518	I3	T402	N2
C503	I1	D351	E4	L310	I11	Q8073	G9	R601	M10	T601	I5
C504	J1	D421	E4	L312	F11	Q8076	H8	R602	I8	TE7	K1
C505	C4	D422	H3	L332	I11	Q8083	I9	R603	N9	TP7	K1
C506	J3	D428	L1	L341	H11	Q8090	I9	R604	K8	X141	C5
C509	C4	D429	K5	L401	N6	Q8093	I9	R606	K8	X153	B6
C511	M6	D481	L2	L404	J5	Q8097	I9	R613	M8	X161	B7
C516	J3	D482	L2	L413	P7	R001	D2	R614	M8	X251	E5
C601	K11	D483	K4	L601	K7	R002	D2	R615	N9	X401	C5
C608	J7	D486	E4	L621	H6	R003	D2	R616	N8	X801	C10
C609	L9	D487	E6	L623	H5	R004	E2	R617	N8	X8011	G9
C612	L8	D489	C12	L625	H4	R008	E4	R618	M8		
C613	L7	D493	D4	L628	H4	R011	E3	R619	M7		
C620	M7	D501	J3	L801	B8	R012	D8	R620	M7		
C622	G6	D503	K1	L813	C8	R101	C3	R621	H7		
C625	I4	D601	M9	L814	C8	R104	D3	R622	M8		
C626	G5	D602	M10	L821	C9	R105	D3	R628	G5		
C628	I2	D603	K9	L851	B11	R106	K2	R629	F6		
C629	F5	D604	K8	L881	B8	R136	B5	R630	K6		
C630	L7	D609	M8	L882	A8	R151	B6	R631	L6		

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C003	E10	C8026	H4	R400	D8	R3446	D12
C004	E10	C8027	H4	R403	D8	R3447	B12
C017	G9	C8028	H4	R426	D8	R3448	E12
C103	C9	C8031	H4	R485	E6	R8004	B3
C108	C10	C8033	H5	R627	G8	R8005	I3
C133	B7	C8034	H4	R803	C7	R8006	I3
C143	C8	C8035	H4	R804	C6	R8011	G4
C160	B7	C8037	H4	R806	A4	R8012	G4
C161	C7	C8041	I3	R807	B4	R8013	G4
C166	B6	C8049	H3	R808	A4	R8014	G4
C202	D6	C8051	H3	R809	A3	R8015	G4
C257	E8	C8052	H3	R813	C4	R8036	H4
C300	E8	C8053	H3	R814	C4	R8037	I4
C303	F2	C8054	H3	R816	C4	R8043	I3
C306	G1	C8055	H3	R821	B3	R8044	H3
C307	G2	C8056	H3	R822	B2	R8055	H3
C308	G2	C8057	G3	R826	B3	R8056	H3
C310	I2	C8058	H3	R827	A2	R8061	H3
C313	I1	C8060	G3	R831	B4	R8065	G3
C314	I1	C8074	G5	R846	C3	R8071	G5
C315	H2	C8076	G5	R851	B2	R8072	G1
C316	I1	C8077	H5	R852	B3	R8073	H5
C317	I2	C8082	I4	R853	C2	R8074	G5
C318	I2	C8091	I5	R854	B3	R8076	H5
C322	I2	IC801	B3	R856	C9	R8077	H5
C323	I2	IC3401	A10	R857	C9	R8081	I5
C331	J2	R133	A7	R859	B3	R8082	I4
C336	H3	R137	B9	R864	A5	R8083	I5
C338	H2	R142	B8	R873	C2	R8085	I4
C341	H3	R143	C8	R881	A6	R8088	J3
C342	H2	R161	C8	R882	A5	R8089	I4
C343	H2	R162	C7	R1007	D2	R8091	I4
C344	H2	R163	B6	R1012	E2	R8092	J4
C352	D7	R168	A5	R1027	D2	R8093	I4
C801	A4	R169	C7	R1032	F1	R8095	I4
C808	C3	R207	C7	R1033	F1	R8096	I4
C809	C3	R212	C7	R1041	D4	R8097	I4
C835	B2	R216	G2	R1042	D4		
C841	D6	R221	C6	R1046	D3		
C842	D7	R222	C6	R1047	E3		
C843	D7	R223	D6	R1048	D3		
C854	C3	R224	D6	R1049	D2		
C857	B2	R225	C6	R1071	F2		
C858	B3	R251	C8	R1082	D2		
C862	A4	R252	C8	R1093	E4		
C884	A9	R271	E7	R1094	D4		
C1000	G10	R272	E7	R1095	D4		
C1004	D2	R273	E7	R1903	D1		
C1005	C2	R276	E7	R1904	F1		
C1011	D1	R287	E7	R1905	G1		
C1032	F2	R288	E7	R1906	H1		
C1082	E3	R289	E7	R1907	H1		
C1091	D4	R301	E8	R3401	A8		
C1910	F1	R302	F8	R3402	A8		
C3406	A9	R303	E8	R3406	A9		
C3407	A9	R304	G2	R3407	A10		
C3421	C10	R305	F2	R3411	B9		
C3422	B10	R307	G1	R3421	C11		
C3423	B11	R308	G2	R3422	B11		
C3426	B11	R312	I2	R3426	B11		
C3431	A11	R332	I2	R3432	D11		
C3433	A11	R333	I3	R3433	D11		
C3434	A11	R343	H3	R3434	D11		
C8003	A3	R347	G2	R3435	D11		
C8011	G4	R348	H3	R3436	D11		
C8012	G4	R352	D7	R3437	D12		
C8014	G4	R371	E8	R3441	B12		
C8015	G4	R372	E8	R3442	E12		
C8017	G4	R373	D7	R3443	B12		
C8021	G4	R376	E8	R3444	E12		
C8023	G4	R377	E8	R3445	D12		

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.

- NTE Electronics, Inc. (NTE)
- Sencore, Inc.

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D101	MTZJ36A	407 100 0204	-
	RD36EB1	407 056 2307	NTE5037A
D102	RD5.6EB3	407 057 0104	NTE5011A
	MTZJ5.6C	407 063 8903	-
D311	MTZJ4.7A	407 099 5006	-
	RD5.1EB1	407 056 7906	NTE5010A
D312	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D351	MTZJ12B	407 099 6607	NTE5021T1
	MTZJ12C	407 063 8408	NTE5021T1
	RD12EB2	407 054 3207	NTE5021T1
	RD12EB3	407 054 3306	NTE5021A
D406	ERB44-04	407 006 4108	NTE552
D407	ERD07-15L	407 095 8001	NTE506
# D421, 22	HZ11B2L	407 158 1307	NTE5020A
D428	MTZJ15A	407 099 6904	-
	RD15EB1	407 054 5706	NTE5023A
D429	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D461	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D463	EUI	407 007 7405	NTE552
D464	MTZJ20A	407 099 7802	-
	RD20EB1	407 055 1707	-
D470	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D481	ERA18-04	407 124 6404	NTE552
	ES1	407 007 6606	NTE552
	RMPG06G	407 124 5506	NTE552
D482	TVR1G	407 011 4407	NTE552
D483	ERA18-04	407 124 6404	NTE552
	ES1	407 007 6606	NTE552
	RMPG06G	407 124 5506	NTE552
D486	MTZJ10B	407 099 6102	-
	RD10EB2	407 054 0008	NTE5019A
D487	ERA15-02	407 005 8602	NTE552
	MPG06D	407 088 6502	NTE552
	S5277B	407 011 3004	NTE552
	1N4002ID	408 009 9404	NTE116
D489	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D493	MTZJ7.5C	407 063 9306	-
	RD7.5EB3	407 057 6502	NTE5015A
D501	ERA15-02	407 005 8602	NTE552
	MPG06D	407 088 6502	NTE552
	S5277B	407 011 3004	NTE552
	1N4002ID	408 009 9404	NTE116
D502	1Z75	407 118 2207	NTE5093A
D503	MTZJ36A	407 100 0204	-
	RD36EB1	407 056 2307	NTE5037A
# D601 Thru			
# D604	EM2B	407 005 7605	NTE125
	GP15G	408 008 8606	NTE125
	1S1887A	407 013 3200	NTE552
D609	ERA18-02	407 124 6503	NTE552
	ES1Z	407 007 6903	NTE552
	RMPG06D	407 124 5605	NTE587
	BYD33D	408 009 9008	NTE569
D610	1N4148	408 008 2406	NTE519
	1S2076A	407 013 4306	NTE519
	1S2473	407 013 7109	NTE177
D611	MTZJ5.6C	407 063 8903	-
	RD5.6EB3	407 057 0104	NTE5011A

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Type No.	Mfr. Part No.	NTE Part No.
# D612	TLP621-1-BL	407 175 9904	NTE3098	Q001	2SC1740S-Q	405 011 8401	NTE85	Q341, 42, 43	2SC1740S-Q	405 011 8401	NTE85
	ON3131S	407 147 5705	-		2SC1740S-R	405 011 8500	NTE85		2SC1740S-R	405 011 8500	NTE85
	PC817C	407 104 2402	NTE3098		2SC1740S-S	405 011 8609	NTE85		2SC1740S-S	405 011 8609	NTE85
D614	PC817D	407 106 6101	NTE3098		2SC1815-GR	405 012 2002	NTE85		2SC1815-GR	405 012 2002	NTE85
	1N4148	408 008 2406	NTE519		2SC1815-O	405 012 2101	NTE85		2SC1815-O	405 012 2101	NTE85
	1S2076A	407 013 4306	NTE519		2SC1815-Y	405 012 2309	NTE85		2SC1815-Y	405 012 2309	NTE85
	1S2473	407 013 7109	NTE177		2SC536NF-NPA	405 157 0505	NTE85		2SC536NF-NPA	405 157 0505	NTE85
# D621	RU3YX	407 106 2806	NTE588		2SC536NG-NPA	405 151 8705	NTE85		2SC536NG-NPA	405 151 8705	NTE85
# D624	FE301-1L43	407 211 6102	-		2SC945A-PA	405 020 7501	NTE85		2SC945A-PA	405 020 7501	NTE85
	RU4YXLF-L1	407 129 6706	NTE580		2SC945A-QA	405 020 7709	NTE85		2SC945A-QA	405 020 7709	NTE85
# D625	FE201-6L43	407 211 5808	-		2SC945A-RA	405 020 7907	NTE85	Q371, 72	2SC945A-RA	405 020 7907	NTE85
	RU4AMLF-L1	407 129 7000	NTE580	Q101, 35	2SC1740S-Q	405 011 8401	NTE85		2SA1015-GR(SAN)	406 000 6804	NTE290A
D627	1S2076A	407 013 4306	NTE519		2SC1740S-R	405 011 8500	NTE85		2SA1015-O(SAN)	405 001 7407	NTE290A
	1S2473	407 013 7109	NTE177		2SC1740S-S	405 011 8609	NTE85		2SA1015-Y(SAN)	405 001 7605	NTE290A
	1N4148	408 008 2406	NTE519		2SC1815-GR	405 012 2002	NTE85		2SA564A-Q(CU)	405 004 3109	NTE290A
D629	MTZJ16A	407 099 7208	-		2SC1815-O	405 012 2101	NTE85		2SA564A-R(CU)	405 004 3208	NTE290A
	RD16EB1	407 054 7007	NTE5025A		2SC1815-Y	405 012 2309	NTE85		2SA608NF-NPA	405 151 3304	NTE290A
D680, 83	1S2076A	407 013 4306	NTE519		2SC536NF-NPA	405 157 0505	NTE85		2SA933S-Q	405 006 1707	NTE290A
	1S2473	407 013 7109	NTE177		2SC536NG-NPA	405 151 8705	NTE85	Q401	2SA933S-R	405 006 1806	NTE290A
	1N4148	408 008 2406	NTE519		2SC945A-PA	405 020 7501	NTE85		2SC2271-D-CTV	405 013 6207	NTE399
D687	1S2076A	407 013 4306	NTE519		2SC945A-QA	405 020 7709	NTE85	# Q402 (1)	2SC2271-E-CTV	405 013 6306	NTE399
	1S2473	407 013 7109	NTE177	Q162	2SC945A-RA	405 020 7907	NTE85	# Q402 (2)	2SD2578-YB	405 153 0202	-
	1N4148	408 008 2406	NTE519		2SA1015-GR(SAN)	406 000 6804	NTE290A	Q461	2SD1880-CTV-YB	405 112 7600	NTE2353
D693	MTZJ6.2B	407 099 5402	NTE5013T1		2SA1015-O(SAN)	405 001 7407	NTE290A		2SC1740S-Q	405 011 8401	NTE85
	RD6.2EB2	407 057 2702	NTE5013A		2SA1015-Y(SAN)	405 001 7605	NTE290A		2SC1740S-R	405 011 8500	NTE85
D694	1S2076A	407 013 4306	NTE519		2SA564A-Q(CU)	405 004 3109	NTE290A		2SC1740S-S	405 011 8609	NTE85
	1S2473	407 013 7109	NTE177		2SA564A-R(CU)	405 004 3208	NTE290A		2SC1815-GR	405 012 2002	NTE85
	1N4148	408 008 2406	NTE519		2SA608NF-NPA	405 151 3304	NTE290A		2SC1815-Y	405 012 2309	NTE85
D801	1S2076A	407 013 4306	NTE519		2SA933S-Q	405 006 1707	NTE290A		2SC536NF-NPA	405 157 0505	NTE85
	1S2473	407 013 7109	NTE177	Q202, 16, 22	2SA933S-R	405 006 1806	NTE290A		2SC536NG-NPA	405 151 8705	NTE85
	1N4148	408 008 2406	NTE519		2SC1740S-Q	405 011 8401	NTE85		2SC945A-PA	405 020 7501	NTE85
D831	MTZJ3.6B	407 065 1308	-		2SC1740S-R	405 011 8500	NTE85	Q462	2SC945A-QA	405 020 7709	NTE85
	RD4.3EB2	407 056 4707	NTE5008A		2SC1740S-S	405 011 8609	NTE85		2SC945A-RA	405 020 7907	NTE85
D834 (1)	MTZJ18C	407 099 7703	NTE5027A		2SC1815-GR	405 012 2002	NTE85		2SB1274-Q-RA	405 064 7307	NTE153
	RD18EB3	407 054 8509	NTE5027A		2SC1815-O	405 012 2101	NTE85	Q486	2SB1274-R-RA	405 064 7406	NTE153
D834 (2)	MTZJ24B	407 099 8700	-		2SC1815-Y	405 012 2309	NTE85		2SD400-E-MP	405 023 5009	NTE382
	RD24EB2	407 055 3800	NTE5038		2SC1815-O	405 012 2101	NTE85	# Q601	2SD400-F-MP	405 023 5306	NTE382
D836, 43	1S2076A	407 013 4306	NTE519		2SC1815-Y	405 012 2309	NTE85	Q604	2SC4423-CTV	405 095 9004	NTE2308
	1S2473	407 013 7109	NTE177		2SC945A-PA	405 020 7501	NTE85	Q605	2SC3807-R-CTV-YA	405 058 0208	NTE2504
	1N4148	408 008 2406	NTE519		2SC536NF-NPA	405 157 0505	NTE85		2SA1015-GR(SAN)	406 000 6804	NTE290A
D1001, 02	MTZJ10B	407 099 6102	-		2SC536NG-NPA	405 151 8705	NTE85		2SA1015-O(SAN)	405 001 7407	NTE290A
	RD10EB2	407 054 0008	NTE5019A	Q225	2SC945A-QA	405 020 7709	NTE85		2SA1015-Y(SAN)	405 001 7605	NTE290A
D1006	MTZJ10B	407 099 6102	NTE5019A		2SC945A-RA	405 020 7907	NTE85		2SA564A-Q(CU)	405 004 3109	NTE290A
	RD10EB2	407 054 0008	-		2SA1015-GR(SAN)	406 000 6804	NTE290A		2SA564A-R(CU)	405 004 3208	NTE290A
D1008, 09	MTZJ3.6B	407 065 1308	NTE5008A		2SA1015-O(SAN)	405 001 7407	NTE290A		2SA608NF-NPA	405 151 3304	NTE290A
	RD4.3EB2	407 056 4707	-		2SA564A-Q(CU)	405 004 3109	NTE290A		2SA933S-Q	405 006 1707	NTE290A
D1011, 21	MTZJ10B	407 099 6102	NTE5019A		2SA564A-R(CU)	405 004 3208	NTE290A	Q627	2SA933S-R	405 006 1806	NTE290A
	RD10EB2	407 054 0008	-		2SA608NF-NPA	405 151 3304	NTE290A		2SA1707-S	405 089 0000	-
D1022, 26, 31	MTZJ10B	407 099 6102	NTE5019A		2SA933S-Q	405 006 1707	NTE290A		2SA1707-T	405 089 0109	-
	RD10EB2	407 054 0008	-	Q301, 06	2SA933S-R	405 006 1806	NTE290A		2SB985-S	405 009 6907	-
D1901 (1)	MTZJ7.5C	407 063 9306	NTE5019A		2SC1740S-Q	405 011 8401	NTE85	Q635, 81	2SB985-T	405 009 7003	-
	RD7.5EB3	407 057 6502	-		2SC1740S-R	405 011 8500	NTE85		2SC1740S-Q	405 011 8401	NTE85
D1911 (2)	MTZJ7.5C	407 063 9306	NTE5015A		2SC1740S-S	405 011 8609	NTE85		2SC1740S-R	405 011 8500	NTE85
	RD7.5EB3	407 057 6502	-		2SC1815-GR	405 012 2002	NTE85		2SC1740S-S	405 011 8609	NTE85
D8000 (2)	MTZJ3.9A	407 099 4504	NTE5015A		2SC1815-O	405 012 2101	NTE85		2SC1815-GR	405 012 2002	NTE85
IC001	LA4600	409 389 4607	-		2SC1815-Y	405 012 2309	NTE85		2SC1815-O	405 012 2101	NTE85
# IC101	LA76170N	409 431 2100	-		2SC1815-Y	405 012 2309	NTE85		2SC1815-Y	405 012 2309	NTE85
IC301	TC90A44P	409 406 1107	-		2SC536NF-NPA	405 157 0505	NTE85		2SC536NF-NPA	405 157 0505	NTE85
# IC501	LA7841	409 340 1904	-		2SC536NG-NPA	405 151 8705	NTE85		2SC536NG-NPA	405 151 8705	NTE85
# IC601	SE130NH	409 172 8102	-		2SC945A-PA	405 020 7501	NTE85		2SC945A-PA	405 020 7501	NTE85
IC681	TA78L05S	409 241 8309	NTE977	Q307, 32	2SC945A-QA	405 020 7709	NTE85		2SC945A-QA	405 020 7709	NTE85
	UPC78L05J	409 066 7303	NTE977		2SC945A-RA	405 020 7907	NTE85	Q688	2SC945A-RA	405 020 7907	NTE85
IC801	M37272M8-FPT	410 354 9503	-		2SA1015-GR(SAN)	406 000 6804	NTE290A		2SA1015-GR(SAN)	406 000 6804	NTE290A
IC802	24LC02B/P	409 333 3700	-		2SA1015-O(SAN)	405 001 7407	NTE290A		2SA1015-Y(SAN)	405 001 7605	NTE290A
	ST24C02B6	409 376 1503	-		2SA1015-Y(SAN)	405 001 7605	NTE290A		2SA564A-Q(CU)	405 004 3109	NTE290A
	KS24C021C	409 470 3304	-		2SA564A-R(CU)	405 004 3208	NTE290A		2SA564A-R(CU)	405 004 3208	NTE290A
IC1001, 02, 81	TC4053BP	409 051 3006	NTE4053B		2SA608NF-NPA	405 151 3304	NTE290A		2SA608NF-NPA	405 151 3304	NTE290A
IC3401	CXA2134Q-T6	409 467 1108	-		2SA933S-Q	405 006 1707	NTE290A		2SA933S-R	405 006 1806	NTE290A
IC8001	M65667SP	409 466 6302	-		2SA933S-R	405 006 1806	NTE290A				

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Function/Rating	Mfr. Part No.	Notes
Q693	2SC1740S-Q	405 011 8401	NTE85	Q1096	2SC1740S-Q	405 011 8401	NTE85	# A101 (1)	Tuner	645 040 5143	UHF/VHF
	2SC1740S-R	405 011 8500	NTE85		2SC1740S-R	405 011 8500	NTE85		Tuner	645 042 2003	UHF/VHF
	2SC1740S-S	405 011 8609	NTE85		2SC1740S-S	405 011 8609	NTE85		Tuner	645 042 1983	UHF/VHF
	2SC1815-GR	405 012 2002	NTE85		2SC1815-GR	405 012 2002	NTE85	# A101 (2)	Tuner	645 040 5150	UHF/VHF
	2SC1815-O	405 012 2101	NTE85		2SC1815-O	405 012 2101	NTE85	A1901 (1)	Receiver	645 027 4213	Remote
	2SC1815-Y	405 012 2309	NTE85		2SC1815-Y	405 012 2309	NTE85	A1911 (2)	Receiver	645 027 4213	Remote
	2SC536NF-NPA	405 157 0505	NTE85		2SC536NF-NPA	405 157 0505	NTE85	# C410	680pF 10% 3kV	403 324 3007	-
	2SC536NG-NPA	405 151 8705	NTE85		2SC536NG-NPA	405 151 8705	NTE85		680pF 10% 3kV	403 232 3403	-
	2SC945A-PA	405 020 7501	NTE85		2SC945A-PA	405 020 7501	NTE85	# C411	.0078 3% 1.5kV	404 077 4600	-
	2SC945A-QA	405 020 7709	NTE85		2SC945A-QA	405 020 7709	NTE85		.0078 3% 1.5kV	403 343 8205	-
	2SC945A-RA	405 020 7907	NTE85		2SC945A-RA	405 020 7907	NTE85	# C412	.012 3% 1.5kV	404 079 1607	-
Q695	2SA1015-Y(SAN)	405 001 7605	NTE290A	Q8000	2SD400-E-MP	405 023 5009	NTE382		.012 3% 1.5kV	403 343 7703	-
	2SA564A-R(CU)	405 004 3208	NTE290A		2SD400-F-MP	405 023 5306	NTE382		.0078 3% 1.5kV	404 077 4600	-
	2SA608-F-CTV-NP	405 004 4809	NTE290A	Q8005, 06	2SC1740S-Q	405 011 8401	NTE85		.0078 3% 1.5kV	403 343 8205	-
Q701, 11, 21 (1)	2SC3620(LB-SAN-1)	406 000 3605	NTE157		2SC1740S-R	405 011 8500	NTE85	# C413	.022 5% 400V	403 083 4307	-
	2SC2621-C-RA	405 066 4304	NTE157		2SC1740S-S	405 011 8609	NTE85	# C414	.022 5% 400V	403 083 4307	-
	2SC2621-D-RA	405 041 6507	NTE157		2SC1815-GR	405 012 2002	NTE85	# C416	.12 20% 200V	404 081 7109	-
	2SC2621-E-RA	405 041 6705	NTE157		2SC1815-O	405 012 2101	NTE85		.12 5% 250V	403 346 3105	-
	2SC2688(1)-K	405 066 9903	NTE157		2SC1815-Y	405 012 2309	NTE85		.27 20% 200V	404 081 2609	-
	2SC2688(1)-L	405 067 0008	NTE157		2SC536NF-NPA	405 157 0505	NTE85		.27 5% 250V	403 346 7126	-
	2SC2688(1)-M	405 067 0107	NTE157		2SC536NG-NPA	405 151 8705	NTE85	# C417	.22 20% 200V	404 081 2401	-
Q701, 11, 21 (2)	2SC4544LB183	406 009 9509	NTE376%		2SC945A-PA	405 020 7501	NTE85		.22 5% 250V	403 349 6921	-
Q831	2SA1015-GR(SAN)	406 000 6804	NTE290A		2SC945A-QA	405 020 7709	NTE85	C493	2.2µF 20% 100V NP	404 056 5307	-
	2SA1015-O(SAN)	405 001 7407	NTE290A	Q8065	2SC945A-RA	405 020 7907	NTE85	# C511	.1 5% 50V	403 057 2100	-
	2SA1015-Y(SAN)	405 001 7605	NTE290A		2SA1015-GR(SAN)	406 000 6804	NTE290A		.1 5% 50V	403 311 8800	-
	2SA564A-Q(CU)	405 004 3109	NTE290A		2SA1015-O(SAN)	405 001 7407	NTE290A		.1 5% 50V	403 057 3107	-
	2SA564A-R(CU)	405 004 3208	NTE290A		2SA1015-Y(SAN)	405 001 7605	NTE290A		.1 5% 50V	403 311 8909	-
	2SA608NF-NPA	405 151 3304	NTE290A		2SA564A-Q(CU)	405 004 3109	NTE290A	# C601	.22 10% 250V	404 071 2404	-
	2SA933S-Q	405 006 1707	NTE290A		2SA564A-R(CU)	405 004 3208	NTE290A		.22 20% 275V	404 066 2204	-
	2SA933S-R	405 006 1806	NTE290A		2SA608NF-NPA	405 151 3304	NTE290A	# C608	.0027 10% 1kV	403 266 5008	-
Q881, 82	2SC1740S-Q	405 011 8401	NTE85		2SA933S-Q	405 006 1707	NTE290A		.0027 10% 1kV	403 232 0402	-
	2SC1740S-R	405 011 8500	NTE85		2SA933S-R	405 006 1806	NTE290A	# C625	.0022 10% 1kV	403 263 6305	-
	2SC1740S-S	405 011 8609	NTE85	Q8073	2SC1740S-Q	405 011 8401	NTE85		.0022 10% 1kV	403 232 0204	-
	2SC1815-GR	405 012 2002	NTE85		2SC1740S-R	405 011 8500	NTE85	# C632	.0022 20% 125VAC	404 008 6802	-
	2SC1815-O	405 012 2101	NTE85		2SC1740S-S	405 011 8609	NTE85		.0022 20% 125VAC	404 046 5003	-
	2SC1815-Y	405 012 2309	NTE85		2SC1815-GR	405 012 2002	NTE85		.0022 20% 250VAC	404 073 4604	-
	2SC536NF-NPA	405 157 0505	NTE85		2SC1815-O	405 012 2101	NTE85	# C742	.001 +80% -20% 2kV	403 077 2807	-
	2SC536NG-NPA	405 151 8705	NTE85		2SC1815-Y	405 012 2309	NTE85		4.7µF 20% 25V NP	403 086 0108	-
	2SC945A-PA	405 020 7501	NTE85		2SC536NF-NPA	405 157 0505	NTE85	C3423	3.3µF 10% 10V Tantalum	403 342 9203	-
	2SC945A-QA	405 020 7709	NTE85		2SC536NG-NPA	405 151 8705	NTE85	C3424	4.7µF 20% 25V NP	403 086 0108	-
	2SC945A-RA	405 020 7907	NTE85		2SC945A-PA	405 020 7501	NTE85	C3426	10µF 10% 10V Tantalum	403 299 1820	-
Q1071	2SC1740S-Q	405 011 8401	NTE85		2SC945A-QA	405 020 7709	NTE85	C3436, 39	4.7µF 20% 25V NP	403 086 0108	-
	2SC1740S-R	405 011 8500	NTE85		2SC945A-RA	405 020 7907	NTE85	# F601	Fuse	423 018 8101	4 Amp, 125V, Fast Acting
	2SC1740S-S	405 011 8609	NTE85	Q8076, 83	2SA1015-GR(SAN)	406 000 6804	NTE290A		Fuse	423 007 1601	4 Amp, 125V, Fast Acting
	2SC1815-GR	405 012 2002	NTE85		2SA1015-O(SAN)	405 001 7407	NTE290A		Fuse	423 007 1809	4 Amp, 125V, Fast Acting
	2SC1815-O	405 012 2101	NTE85		2SA1015-Y(SAN)	405 001 7605	NTE290A	# K701A (1)	Socket	645 025 6103	CRT
	2SC1815-Y	405 012 2309	NTE85		2SA564A-Q(CU)	405 004 3109	NTE290A	# K701A (2)	Socket	645 026 2005	CRT
	2SC536NG-NPA	405 151 8705	NTE85		2SA564A-R(CU)	405 004 3208	NTE290A	K1001, 02	Jack	645 032 1979	Assembly
	2SC536NF-NPA	405 157 0505	NTE85		2SA608NF-NPA	405 151 3304	NTE290A	K1011	Jack	610 010 3665	Right Audio Output
	2SC945A-PA	405 020 7501	NTE85		2SA933S-Q	405 006 1707	NTE290A	K1021	Jack	610 010 3672	Left Audio Output
	2SC945A-QA	405 020 7709	NTE85		2SA933S-R	405 006 1806	NTE290A	K1051	Jack	610 010 8285	S-Video 1 Input
	2SC945A-RA	405 020 7907	NTE85	Q8090	2SC1740S-Q	405 011 8401	NTE85	K1052	Jack	-	S-Video 2 Input
Q1093	2SC1740S-Q	405 011 8401	NTE85		2SC1740S-R	405 011 8500	NTE85	L164 (1)	12µH	645 008 2733	-
	2SC1740S-R	405 011 8500	NTE85		2SC1740S-S	405 011 8609	NTE85		12µH	645 016 2596	-
	2SC1740S-S	405 011 8609	NTE85		2SC1815-GR	405 012 2002	NTE85	L164 (2)	15µH	645 003 9713	-
	2SC1815-GR	405 012 2002	NTE85		2SC1815-O	405 012 2101	NTE85		15µH	645 016 2657	-
	2SC1815-O	405 012 2101	NTE85		2SC1815-Y	405 012 2309	NTE85	L166	33µH	645 003 9812	-
	2SC1815-Y	405 012 2309	NTE85		2SC536NF-NPA	405 157 0505	NTE85		33µH	645 016 2985	-
	2SC536NG-NPA	405 151 8705	NTE85		2SC536NG-NPA	405 151 8705	NTE85	L305	5.6µH	645 008 2894	-
	2SC536NF-NPA	405 157 0505	NTE85		2SC945A-PA	405 020 7501	NTE85		5.6µH	645 016 3104	-
	2SC945A-PA	405 020 7501	NTE85		2SC945A-QA	405 020 7709	NTE85	L306	22µH	645 003 9782	-
	2SC945A-QA	405 020 7709	NTE85		2SC945A-RA	405 020 7907	NTE85		22µH	645 016 2831	-
	2SC945A-RA	405 020 7907	NTE85	Q8093, 97	2SC3114-R	405 039 3303	NTE289A	L309	5.6µH	645 008 2894	-
Q1094	2SA1015-GR(SAN)	406 000 6804	NTE290A		2SC3114-S	405 039 3402	NTE289A		5.6µH	645 016 3104	-
	2SA1015-O(SAN)	405 001 7407	NTE290A		2SC3114-T	405 017 1901	NTE289A	L310	Ferrite Bead	610 078 5946	-
	2SA1015-Y(SAN)	405 001 7605	NTE290A						Ferrite Bead	652 000 1725	-
	2SA564A-Q(CU)	405 004 3109	NTE290A					L312	5.6µH	645 008 2894	-
	2SA564A-R(CU)	405 004 3208	NTE290A						5.6µH	645 016 3104	-
	2SA608NF-NPA	405 151 3304	NTE290A					L332	15µH	645 003 9713	-
	2SA933S-Q	405 006 1707	NTE290A						15µH	645 016 2657	-
	2SA933S-R	405 006 1806	NTE290A								

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes	Item No.	Function/Rating	Mfr. Part No.	Notes	Item No.	Function/Rating	Mfr. Part No.	Notes
L341	8.2μH	645 008 2924	-	# R481	33 5% 1/2W Nonflammable	401 009 4905	-	X251	Crystal	610 012 0655	3.58MHz
	8.2μH	645 016 3227	-		27 5% 1/2W Nonflammable	401 009 0006	-		Crystal	610 204 4195	3.58MHz
L401 (1)	1μH	645 036 4198	-	# R482	1 5% 1/4W Nonflammable	401 011 9004	-		Crystal	610 245 9746	3.58MHz
L401 (2)	3.3μH	645 017 7675	-		56 5% 1/4W Nonflammable	401 021 0701	-	X401	Crystal	645 020 9147	507.5kHz
L402	Ferrite Bead	610 031 9998	-	# R483	1 5% 1/2W Nonflammable	401 006 7701	-		Crystal	645 033 1596	503kHz
L403	Ferrite Bead	610 078 6820	-	# R486	4.7 5% 2W	401 068 1600	-	X801	Crystal	645 026 8434	8MHz
L404	33μH	645 003 9812	-	# R489	18 5% 1W	401 059 5907	-	X8011	Crystal	645 041 1564	14.31818MHz
	33μH	645 016 2985	-	R492	33K 1% 1/6W	401 156 8504	-		Button (1)	610 275 4049	Unit
# L413 (1)	Horizontal Linearity	645 025 4413	-	# R497	2.2 5% 1W	401 059 9608	-		Button (2)	610 253 7567	Unit
	Horizontal Linearity	645 029 8042	-		2.2 5% 2W	401 066 3002	-		Fuse Holder	645 000 5077	For F601 (2 Used)
# L413 (2)	Horizontal Linearity	645 027 5296	-	# R498	8.2 5% 1/2W	401 011 4306	-		Fuse Holder	645 016 0479	For F601 (2 Used)
	Horizontal Linearity	645 030 2862	-	# R511	270 5% 1W	401 060 7402	-		PC Board (1)	610 281 9434	AV
L414	-	610 031 1367	-	# R601	1 10% 7W Wirewound	402 064 2905	-		PC Board (2)	610 281 9465	AV
	-	610 211 3488	-		1 10% 7W Wirewound	402 072 3000	-		PC Board (1)	610 282 5749	CRT
L416	350μH	645 013 8676	-	# R602	3.3M 10% 1/2W	402 000 0705	-		PC Board (2)	610 281 9489	CRT
L601	Ferrite Bead	610 078 6820	-	# R604, 06	22 5% 2W	401 066 5204	-		PC Board (1)	610 281 9496	Front
L621, 23	Ferrite Bead	610 078 5946	-	# R613	27 5% 2W	401 066 9103	-		PC Board (2)	610 281 9403	Main
	Ferrite Bead	652 000 1725	-	R616	1500 2% 1/6W	401 025 1506	-		PC Board (1)	610 281 9427	Main
L625, 28	Ferrite Bead	610 078 5946	-	R617	2700 2% 1/6W	401 026 0904	-		Transmitter (1)	645 040 2814	Remote
	Ferrite Bead	652 000 1725	-	# R618	27 5% 2W	401 066 9103	-		Transmitter (2)	645 032 6165	Remote
L701	68μH	610 029 8682	-	R622	2200 2% 1/6W	-	-				
	68μH	645 008 0340	-	# R630	1800 2% 1/6W	401 025 4101	-				
L800	-	-	-	# R707, 17, 27	22K 5% 1W	401 060 5002	-				
L801	5.6μH	645 008 2894	-		12K 5% 2W	401 065 4604	-				
	5.6μH	645 016 3104	-		8200 5% 2W	401 069 8202	-				
L813, 14	1μH	645 006 2490	-	R3411	62K 5% 1/10W	401 152 9604	-				
	1μH	645 016 2411	-	# R8001	56 5% 2W	401 068 6902	-				
L821, 51	5.6μH	645 008 2894	-	# R8002	100 5% 2W	401 064 7507	-				
	5.6μH	645 016 3104	-	# RL601	Relay	645 000 4155	-				
L881, 82	1μH	645 006 2490	-		Relay	645 011 2713	-				
	1μH	645 016 2411	-		Relay	645 024 7828	-				
# L901 (1)	Degaussing	645 041 3902	-		Relay	645 015 8629	-				
# L901 (2)	Degaussing	645 025 0460	-		Relay	645 024 7767	-				
# L902 (1)(3)	Yoke	-	Horiz 1.29mH, Vert 16.7mH		Speaker	610 005 6536	-				
# L902 (2)(3)	Yoke	-	Horiz .95mH, Vert 24.5mH	SP901, 02 (1)	Speaker	645 010 0567	-				
L1901	5.6μH	645 008 2894	-	SP901, 02 (2)	Speaker	645 027 7382	-				
	5.6μH	645 016 3104	-	SW1901 (1)	Switch	645 027 7382	-				
L8007, 08	5.6μH	645 008 2894	-	SW1902 (1)	Switch	645 027 7382	-				
	5.6μH	645 016 3104	-	SW1903 (1)	Switch	645 027 7382	-				
L8022, 24	10μH	610 031 3873	-	SW1904 (1)	Switch	645 027 7382	-				
	10μH	645 016 2534	-	SW1905 (1)	Switch	645 027 7382	-				
L8032, 36, 59	10μH	610 031 3873	-	SW1906 (1)	Switch	645 027 7382	-				
	10μH	645 016 2534	-	SW1911 (2)	Switch	645 027 7382	-				
L8070	5.6μH	645 008 2894	-	SW1912 (2)	Switch	645 027 7382	-				
	5.6μH	645 016 3104	-	SW1913 (2)	Switch	645 027 7382	-				
L8074	33μH	645 003 9812	-	SW1914 (2)	Switch	645 027 7382	-				
	33μH	645 016 2985	-	SW1915 (2)	Switch	645 027 7382	-				
L8094, 98	1μH	645 006 2490	-	SW1916 (2)	Switch	645 027 7382	-				
	1μH	645 016 2411	-	T131	SIF	645 027 6095	-				
# LF601	Line Filter	645 012 0589	-	T151	VCO	645 027 6088	-				
	Line Filter	645 026 8274	-	T401	Horizontal Drive	610 000 1138	-				
# PS601 (1)	3 Cold PTC	408 006 7304	PTH631D01BF5R0M125		Horizontal Drive	610 223 1663	-				
	3 Cold PTC	408 010 7307	PHT631D10BF5R0M140	# T402 (1)(4)	Horizontal Output	645 032 8978	-				
# PS601 (2)	PTC	408 038 5606	PTH451A300BG3		Horizontal Output	645 018 9579	-				
	PTC	408 041 8205	PTH451A3R0Q11	# T402 (2)(4)	Horizontal Output	645 024 1413	-				
# Q900 (1)	CRT	414 010 3409	A68AJB82X04	# T601	Power	645 040 1510	-				
# Q900 (2)	CRT	414 009 8002	A90AEJ15X01	VR461	10K Horizontal Width	645 003 5531	-				
# R104	33 5% 1/2W	401 009 4806	-		10K Horizontal Width	645 011 6988	-				
# R310, 11	47 5% 1/2W	401 010 2501	-		10K Horizontal Width	645 019 6003	-				
# R407	6800 5% 2W	401 069 3702	-	# W601 (1)	Line Cord	645 030 5306	-				AC, Polarized
# R408	15K 5% 1W	401 059 4900	-	# W601 (2)	Line Cord	645 034 8518	-				AC, Polarized
# R411	6.8 10% 7W Wirewound	402 068 5001	-	X141 (1)	Filter	421 006 8904	-				SAW
	6.8 10% 7W Wirewound	402 076 0401	-	X141 (2)	Filter	421 006 3206	-				SAW
# R413	3.9 10% 7W Wirewound	402 067 7709	-		Filter	421 008 9008	-				SAW
	3.9 10% 7W Wirewound	402 072 4403	-	X153	Filter	610 015 2946	-				4.5MHz
# R418	2700 5% 1/2W	401 009 1607	-		Filter	645 030 1049	-				4.5MHz
# R421	1300 1% 1/6W	401 052 8608	-		Filter	645 041 1656	-				4.5MHz
	1200 1% 1/6W	401 083 8301	-	X161	Trap	610 015 3059	-				4.5MHz
# R422	10K 1% 1/6W	401 052 6802	-		Trap	645 041 1618	-				4.5MHz
# R423	3300 1% 1/6W	401 053 2605	-				-				

For SAFETY use only equivalent replacement part.
 % Use insulating hardware supplied with replacement.
 (1) Used in model DS27800.
 (2) Used in model AVM-3650G.
 (3) Bonded part of CRT.
 (4) Screen and focus controls are part of T402.

SANYO

MODEL DS27800 (CHASSIS 27800-00)