

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.

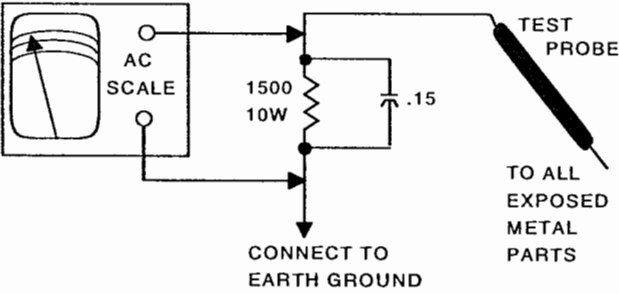
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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 to the receiver. Press the power button. Momentarily place a 20K ±110 ohms 1/4W (Model AV-27FA54ASA) or 16.9K ±85 ohms 1/4W (Model AV-27FA54AZA) resistor across pins 2 and 3 of connector S1. The receiver should lose raster and sound and remain in that state. If the receiver does not lose raster and sound, the high voltage shutdown circuit requires repair. To resume normal operation, remove resistor across pins 2 and 3 of connector S1. Remove AC power and wait 15 seconds and test the receiver 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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PHOTOFACT[®] Technical Service Data
SILVER

SET 4993

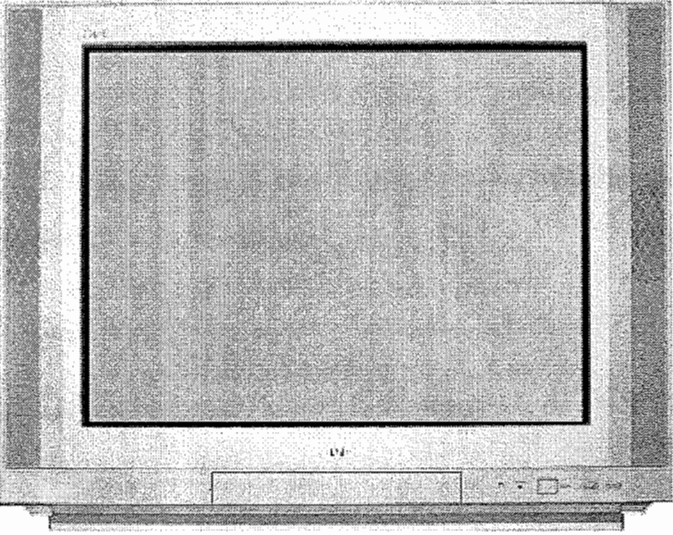
MODELS AV-27FA54/ASA, AV-27FA54/AZA

JVC

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JVC
Models AV-27FA54/ASA, AV-27FA54/AZA



Representative Model

Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list



For a Complete List of Manuals,
Visit www.samswebsite.com

MARCH 2005 SET 4993

MISCELLANEOUS ADJUSTMENTS

NOTE: This receiver employs digital customer controls. Unless otherwise indicated all adjustments were performed with the customer controls at center.

SELF-CHECK (Displayed by on timer LED)

The self-check starts about 5 seconds after power is applied to set. If a malfunction is detected the power is automatically turned off and the on time LED flashes.

Item	Power LED On / Off Rate
B1 over current protection / Neck.	.5 Second Intervals.

B+ CHECK

Tune in a picture. Connect a digital DC voltmeter to TP-91, pin 5 of connector S1 and ground. With AC line set to 120VAC, voltage should read 134.5V ±2.0V.

HIGH VOLTAGE CHECK

Tune in a picture. Connect a High Voltage Probe to the CRT Anode. High voltage should read 28.7kV to 31.3kV.

RF AFC MODE (Do not adjust)

Select RF AFC Mode from the Service Menu.

RF AFC Mode Menu Chart		
Too High	Good	Too Low
TUNER		MAIN
AFC		ON
FINE		+01

I²C BUS MODE (Do not adjust)

Select I²C BUS Mode from the Service Menu.

I ² C BUS Mode Menu Chart	
I ² C Bus	ON

VCO MODE

Tune in a color bar signal. Select VCO Mode from the Service Menu.

Main VCO

Select MAIN.

VCO Mode (Main) Menu Chart	
TUNER	MAIN
HIGH LEVEL	
REFERENCE LEVEL <————— Green in color	
LOW LEVEL	
SYNC:	YES

Adjust VCO T111 until REFERENCE LEVEL mark turns green in color, confirm that SYNC : YES is being shown on the screen. Exit Service Menu and check the picture quality.

SUB VCO

Select SUB.

VCO Mode (Sub) Menu Chart	
TUNER	SUB
HIGH LEVEL	
REFERENCE LEVEL <————— Green in color	
LOW LEVEL	
SYNC:	YES

Adjust VCO T4111 until REFERENCE LEVEL mark turns green in color, confirm that SYNC : YES is being shown on the screen. Exit Service Menu and check the picture quality.

V/C (S) MODE

Select V/C (S) Mode from the Service Menu.

Sub Bright / Sub Picture / Sub Color / Sub Tint

Tune in a picture. Adjust BRIGHT (S01) for best brightness. Adjust PICTURE (S02) for best contrast. Adjust COLOR (S03) for best color. Adjust TINT (S04) for best flesh tone.

RF AGC

Tune in a black and white signal. Decrease the value of AGC ADJ (S45) until snow appears in the picture. Increase the value of AGC ADJ (S45) until snow disappears from the picture. Check all channels for proper picture and readjust if necessary.

DEF (D) MODE

Select DEF (D) Mode from the Service Menu.

Vertical Size / Vertical Center / Vertical Position (4:3)

Tune in a crosshatch pattern. Ensure that V PHASE (D05) is 0. Adjust V SIZE (D07) for a slightly underscanned picture. Set vertical centering switch to center the picture. Adjust V SIZE (D07) for a 92% of vertical screen size. Bottom should be located at 85% to 95%. Adjust V LIN (D13) and V S CORR (D11) to correct vertical linearity.

Vertical Size / Vertical Position (16:9)

Perform Vertical Size / Vertical Center / Vertical Position (4:3) Adjustment. Tune in a black and white signal and select 16:9 mode with the aspect button. Confirm that the picture is centered. Adjust V SIZE +/- (D08) and V LIN +/- (D14) for equal distance of 50mm at top and bottom.

Horizontal Position / Horizontal Size / Side Pin Correction (4:3)

Perform Vertical Size / Vertical Center / Vertical Position (4:3) and Vertical Size / Vertical Position (16:9) Adjustments. Tune in a crosshatch pattern. Adjust the H POSI (D03) to center the picture. Adjust H SIZE (D15) for a 90% of horizontal screen size. Adjust EW PARA (D23) to obtain straight vertical lines on both sides of pattern. Adjust EWCR TOP (D19) to obtain straight vertical lines at the two top corners. Adjust EWCR BTM (D21) to obtain straight vertical lines at the two bottom corners. If EW PARA (D23), EWCR TOP (D19), and EWCR BTM (D21) are adjusted, check the 16:9 mode also.

Horizontal Position / Horizontal Size / Side Pin Correction (16:9)

Perform Horizontal Position / Horizontal Size / Side Pin Correction (4:3) Adjustments. Tune in a crosshatch pattern and select 16:9 mode with the aspect button. Comfirm 90% of horizontal screen size, adjust H SIZE +/- (D16) and H POSI +/- (D04) to correct. Comfirm straightness of vertical lines, adjust EW PARA +/- (D24), EWCR T +/- (D20), and EWCR B +/- (D22) to correct.

LOW LIGHT MODE

Select V/C (S) Mode from the Service Menu. Confirm that BRIGHT (S01) is 64, R CUT OFF (S11), G CUT OFF (S12), and B CUT OFF (S13) are 30. Select LOW LIGHT Mode from the Service Menu.

NOTE: While in the LOW LIGHT Mode Menu adjustments are performed using the following buttons on the remote:

- | | |
|----------------------------|----------------------------|
| 1 - Horizontal line. | 6 - Increase blue cutoff. |
| 2 - Restores full picture. | 7 - Decrease red cutoff. |
| 3 - Exit. | 8 - Decrease green cutoff. |
| 4 - Increase red cutoff. | 9 - Decrease blue cutoff. |
| 5 - Increase green cutoff. | |

White Balance (Low Light Adjustment)

Tune in a black and white signal. Press 1 to display a horizontal line. Adjust the screen control for a dim line of one dominant color. Adjust the other two cutoffs for a dim white line. Press 2 for a full picture. Press 3 to exit.

MAIN HIGH LIGHT MODE

Select V/C (S) Mode from the Service Menu. Confirm that R DRIVE (S14) and B DRIVE (S15) are 64. Select HIGH LIGHT Mode from the Service Menu.

NOTE: While in the High Light Mode Menu adjustments are performed using the following buttons on the remote:

- | | |
|-------------------------|--------------------------|
| 3 - Exit. | 6 - Increase blue drive. |
| 4 - Increase red drive. | 7 - Decrease red drive. |
| | 9 - Decrease blue drive. |

White Balance (High Light Adjustment)

Tune in a black and white signal. Adjust the R and B DRIVES for best white balance. Press 3 to exit and check white balance at high and low brightness.

PIP HIGH LIGHT MODE

Select PIP Mode from the Service Menu. Confirm that R DRIVE (PIP08) is 63 and B DRIVE (PIP10) is 65. Select HIGH LIGHT Mode from the Service Menu.

NOTE: While in the High Light Mode Menu adjustments are performed using the following buttons on the remote:

- | | |
|-------------------------|--------------------------|
| 3 - Exit. | 6 - Increase blue drive. |
| 4 - Increase red drive. | 7 - Decrease red drive. |
| | 9 - Decrease blue drive. |

White Balance (High Light Adjustment)

Tune in a black and white signal. Adjust the R and B DRIVES for best white balance. Press 3 to exit and check white balance at high and low brightness.

SOUND (A) MODE

Select SOUND (A) Mode from the Service Menu. Receive an RF signal.

MTS Input Level

Select IN LEVEL (A01) and set to 10.

MTS Separation

Connect an MTS TV stereo generator to the antenna input. Select pilot, 300Hz audio frequency, and left modulating signal on the generator. Connect an oscilloscope to pin 7 of IC621 and adjust to display one cycle of the 300Hz signal. Adjust LOW SEP (A02) for minimum amplitude of the waveform. Select 8kHz audio frequency on the generator. Connect oscilloscope to pin 12 of IC621. Adjust HI SEP (A03) for minimum amplitude of the waveform.

SERVICE MENU

NOTE: The following charts show the initial setting values. Optimum condition of onset values may differ from initial setting. Do not change initial setting values that are not listed in adjustments. Initial value marked - - - indicates the value cannot be adjusted.

Select TV and VCR on remote. To enter the Service Menu, press the sleep timer button, set for 0 minutes, while the message “Sleep Timer 0 Min” is displayed on the screen, press the display and video status buttons together. The Service Menu is displayed as shown below. While in the Service Menu, use the channel + and - buttons to select and use the volume - and + buttons to adjust. To exit the Service Menu, press the exit button.

Service Menu Chart	
1. V/C (S)	2. DEF (D)
3. SOUND (A)	4. OTHERS (F) (Do not adjust)
5. PIP	6. 3L Y/C (LYC) (Do not adjust)
7. LOW LIGHT	8. HIGH LIGHT
9. RF AFC (Do not adjust)	10. VCO
11. I ² C BUS (Do not adjust)	12. SYSTEM (SYS) (Do not adjust)

V/C (S) MODE

Select V/C (S) Mode from the Service Menu.

V/C (S) Mode Menu Chart						
No.	Item	RF	RF	RF	Ext	Ext
		Standard	Standard	Theater	S, CV	Comp
		4:3	16:9	4:3	4:3	4:3
		Initial	Initial	Initial	Initial	Initial
		Value	Value	Value	Value	Value
All Models						
S01	BRIGHT	64	---	---	---	---
S02	PICTURE	60	---	---	---	---
S03	COLOR	50	---	---	---	52
S04	TINT	68	---	---	---	70

MISCELLANEOUS ADJUSTMENTS continued

No.	Item	RF Standard 4:3 Initial Value	RF Standard 16:9 Initial Value	RF Theater 4:3 Initial Value	Ext S, CV 4:3 Initial Value	Ext Comp 4:3 Initial Value
Model AV-27FA54/ASA						
S05	DETAIL	33	---	---	35	40
Model AV-27FA54/AZA						
S05	DETAIL	37	---	---	39	44
All Models						
S06	BRIGHT +/-	---	0	+1	-2	±0
S07	PICT +/-	---	-8	-10	±0	-5
S08	COLOR +/-	---	0	-3	-1	---
S09	TINT +/-	---	0	-3	+2	---
S10	DETAIL +/-	---	---	0	---	---

No.	Item	RF/Ext S, CV Standard Low Initial Value	RF/Ext S, CV Standard High Initial Value	RF/Ext S, CV Theater Low Initial Value	RF/Ext S, CV Theater High Initial Value
S11	R CUT OFF	30	---	---	---
S12	G CUT OFF	30	---	---	---
S13	B CUT OFF	30	---	---	---
S14	R DRIVE	64	---	---	---
S15	B DRIVE	64	---	---	---
S16	R CUT +/-	---	±0	±0	±0
S17	G CUT +/-	---	±0	±0	±0
S18	B CUT +/-	---	±0	±0	±0
S19	R DRV +/-	---	+5	+13	+7
S20	B DRV +/-	---	+6	-25	-9
S21	NTSC MAT	3	3	1	1
S22	BLACK ST	2	---	2	---
S23	DCREST	1	---	1	---
S24	DCRSW	1	---	1	---

No.	Item	Ext Comp Standard Low Initial Value	Ext Comp Standard High Initial Value	Ext Comp Theater Low Initial Value	Ext Comp Theater High Initial Value
S11	R CUT OFF	---	---	---	---
S12	G CUT OFF	---	---	---	---
S13	B CUT OFF	---	---	---	---

No.	Item	Ext Comp Standard Low Initial Value	Ext Comp Standard High Initial Value	Ext Comp Theater Low Initial Value	Ext Comp Theater High Initial Value
S14	R DRIVE	---	---	---	---
S15	B DRIVE	---	---	---	---
S16	R CUT +/-	-5	---	---	---
S17	G CUT +/-	±0	---	---	---
S18	B CUT +/-	-6	---	---	---
S19	R DRV +/-	±0	---	---	---
S20	B DRV +/-	±0	---	---	---
S21	NTSC MAT	2	2	1	1
S22	BLACK ST	---	---	---	---
S23	DCREST	---	---	---	---
S24	DCRSW	---	---	---	---

No.	Item	RF Initial Value	Ext Initial Value	Comp Initial Value
S25	ASY SHRP	4	4	4
S26	BPF F0	0	0	---
S27	KILR OFF	0	0	---
S28	KILR SEN	1	1	---

No.	Item	Initial Value
S29	RGB MUTE	0
S30	BLUE B	0
S31	VIDEO SW	3
S32	CMP ABCL	0
S33	OSD ABL	0
S34	OSD CONT	7
S35	SUB CONT	5
S36	ABL GAIN	0
S37	ABL PNT	3
S38	Y GAMMA	1
S39	Y MUTE	0
S40	SVM GAIN	3
S41	SVM PH	1
S42	WPL	0
S43	COL GMM	0
S44	V1 GAIN	4
S45	AGC ADJ	63
S46	VMOFF DE	+3
S47	APC CLK	1
S48	PIP ADJ	4

DEF (D) MODE

Select DEF (D) Mode from the Service Menu.

DEF (D) Mode Menu Chart				
No.	Item	RF 4:3 Initial Value	RF 16:9 Initial Value	Ext 4:3 Initial Value
All Models				
D01	V FREQ	0	0	3
D02	AFC GAIN	0	0	2
D03	H POSI	20	---	20
D04	H POSI +/-	---	0	---
D05	V PHASE	0	---	0
D06	V PH +/-	---	0	---
Model AV-27FA54/ASA				
D07	V SIZE	90	---	90
D08	V SIZE +/-	---	-30	---
Model AV-27FA54/AZA				
D07	V SIZE	80	---	80
D08	V SIZE +/-	---	-25	---
No.	Item	RF 4:3 Initial Value	RF 16:9 Initial Value	Ext 4:3 Initial Value
All Models				
D09	V CENTER	32	---	32
D10	V CENT +/-	---	0	---
D11	V S CORR	9	---	9
D12	V S CO +/-	---	0	---
D13	V LIN	10	---	10
D14	V LIN +/-	---	0	---
D15	H SIZE	33	---	33
D16	H SIZE +/-	---	0	---
D17	WVMT TOP	0	1	0
D18	WVMT BTM	0	1	0
D19	EWCR TOP	12	---	12
D20	EWCR T +/-	---	0	---
D21	EWCR BTM	14	---	14
D22	EWCR B +/-	---	0	---
D23	EW PARA	36	---	36
D24	EW PARA +/-	---	-15	---
D25	V EHT	0	---	0

No.	Item	RF 4:3 Initial Value	RF 16:9 Initial Value	Ext 4:3 Initial Value
D26	V EHT +/-	---	0	---
D27	H EHT	0	---	0
D28	H EHT +/-	---	0	---
D29	TRAPEZ	31	---	31
D30	TRAPEZ +/-	---	0	---
D31	V AGC	0	0	0
D32	BLANK SW	0	0	0
D33	VRMP BI	0	0	0

SOUND (A) MODE

Select SOUND (A) Mode from the Service Menu. Receive an RF signal.

Sound (A) Mode Menu Chart		
No.	Item	Initial Value
A01	IN LEVEL	10
A02	LOW SEP	32
A03	HI SEP	32
A04	SAPC	0
A05	BBE BASS	+6
A06	BBE TRE	+6
A07	AHS MVE	0
A08	AHS MCS	0

OTHERS (F) MODE (Do not adjust)

Select OTHERS (F) Mode from the Service Menu.

OTHERS (F) Mode Menu Chart		
No.	Item (Not Displayed)	Initial Value
F01	(OSD POSI)	37
F02	(OSD FREQ)	90
F03	(CCD POSI)	39
F04	(CCD FREQ)	91
F05	(CCD CONT)	3
F06	(PUR WBCK)	0
F07	(PUR CONT)	2
F08	(SN TYPE)	0
F09	(YCSN TM)	5
F10	(YCSN E)	5
F11	(YCSN F)	16
F12	(YCSN G)	32
F13	(VNR CHK)	3

MISCELLANEOUS ADJUSTMENTS continued

No.	Item (Not Displayed)	Initial Value
F14	(VCSN TM)	5
F15	(VCSN 1)	0
F16	(VCSN 2)	10
F17	(VCSN 3)	20
F18	(VCSN STP)	2
F19	(VM DAT A)	+8
F20	(VM DAT B)	-8
F21	(VM DAT C)	-20
F22	(VM DAT D)	-32
F23	(VM DAT E)	1
F24	(VMOFF TY)	1
F25	(YC VMOFF)	255
F26	(EZSF TM)	40
F27	(XDSID TM)	15
F28	(FM TRAP)	1

3L Y/C (LYC) MODE (Do not adjust)

Select 3L Y/C (LYC) Mode from the Service Menu.

3L Y/C (LYC) Mode Menu Chart

No.	Item (Not Displayed)	Initial Value
LYC01	(MODE)	4
LYC02	(VENH)	1
LYC03	(PD SOFF)	0
LYC04	(CB)	0
LYC05	(VNLR)	2
LYC06	(GSEL0)	0
LYC07	(GSEL1)	1
LYC08	(COR)	0
LYC09	(TRAP)	1
LYC10	(CHTRAP)	0
LYC11	(CBPF)	0
LYC12	(ENHOFF)	0

PIP MODE

Select PIP Mode from the Service Menu.

PIP Mode Menu Chart

No.	Item	Initial Value
Model AV-27FA54/ASA		
PIP01	BRIGHT	0
Model AV-27FA54/AZA		
PIP01	BRIGHT	3

No.	Item	Initial Value
All Models		
PIP02	PICTURE	30
PIP03	TINT	42
PIP04	COLOR	6
PIP05	R CUTOFF	0
PIP06	G CUTOFF	0
PIP07	B CUTOFF	0
PIP08	R DRIVE	63
PIP09	G DRIVE	65
PIP10	B DRIVE	65
PIP11	L POSI	22
PIP12	R POSI	15
PIP13	UPR POSI	12
PIP14	LWR POSI	11
PIP15	PICT LCK	1
PIP16	SELDEL	0
PIP17	AGCFIX	1
PIP18	AGCADST	0
PIP19	AGC	7
PIP20	BLKINVB	0
PIP21	BLKINVR	0
PIP22	VSPDEL	0
PIP23	VSPISQ	1
PIP24	RGBIN	0
PIP25	FRSEL	1
PIP26	OUTFOR	0
PIP27	UVPOLAR	0
PIP28	MAT	1
PIP29	YCOR	1
PIP30	XFREQF	1
PIP31	WTCHDG	1
PIP32	COLON	0
PIP33	ACQNEW	0
PIP34	DSTDET	1
PIP35	CRIBEOK	0
PIP36	FCBEOK	0
PIP37	NOCRID	0
PIP38	NONSED	0
PIP39	BRI EXT	0
PIP40	PCT EXT	0
PIP41	TNT EXT	0
PIP42	COR EXT	0
PIP43	R-D EXT	0
PIP44	G-D EXT	0
PIP45	B-D EXT	0
PIP46	BRT COMP	0
PIP47	PCT COMP	0
PIP48	TNT COMP	40
PIP49	COR COMP	5

No.	Item	Initial Value
PIP50	R-D COMP	0
PIP51	G-D COMP	0
PIP52	B-D COMP	0

SYSTEM (SYS) MODE (Do not adjust)

Select SYSTEM (SYS) Mode from the Service Menu.

SYSTEM (SYS) Mode Menu Chart

No.	Item	Initial Value
SYS01	VIDEO IN	4
SYS02	PIP	1
SYS03	3D Y/C	0
SYS04	Y CV	1
SYS05	CCD PCHK	1
SYS06	PURITY	0
SYS07	VM	1
SYS08	NOISE CR	0
SYS09	CLR TEMP	1
SYS10	THEATER	1
SYS11	THEATER PRO	1
SYS12	BBE	1
SYS13	SOUND	2
SYS14	16:9 MD	1
SYS15	HYP SCAN	1
SYS16	EZ SURF	1
SYS17	ID DISP	1
SYS18	COMPULINK	1
SYS19	CCD	1
SYS20	VCHIP	1
SYS21	VCHIP CA	1
SYS22	JVC LOGO	1
SYS23	CMP IN	1
SYS24	CXA1875	0
SYS25	PIM	1
SYS26	GAME MD	0
SYS27	VOL MUTE	1

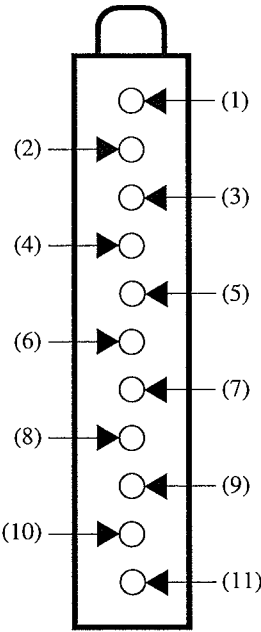
TUNER INFORMATION

MAIN TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	2.3V	2.4V	2.3V
(2) NC	0V	0V	0V
(3) ADRS	4.8V	4.8V	4.8V
(4) SCL	4.2V	4.2V	4.2V
(5) SDA	4.3V	4.3V	4.3V
(6) MB	4.8V	4.8V	4.8V
(7) BP	4.8V	4.8V	4.8V
(8) NC	0V	0V	0V
(9) BT	31.5V	31.5V	31.5V
(10) NC	0V	0V	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.

MAIN TUNER TERMINAL GUIDE



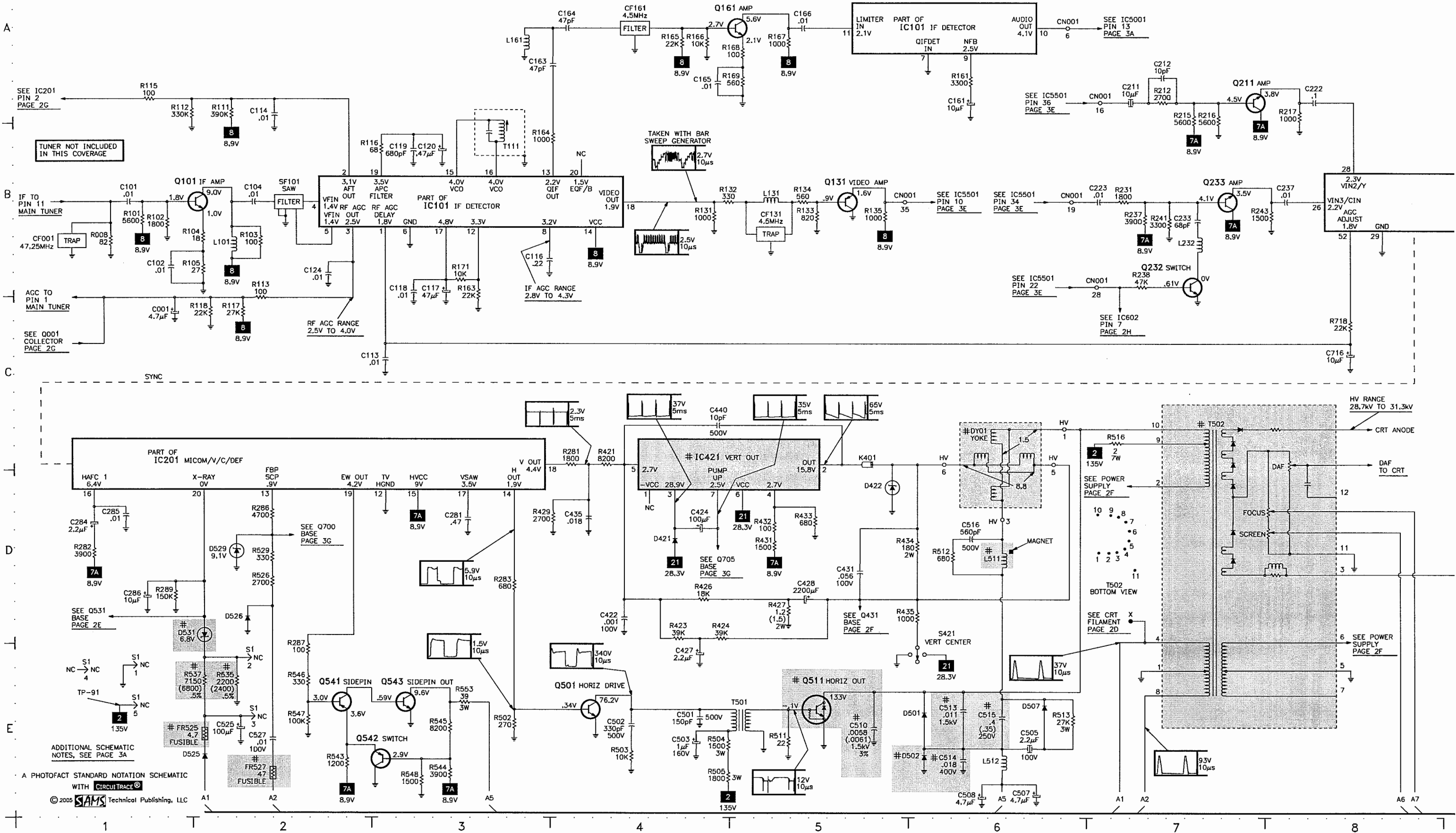
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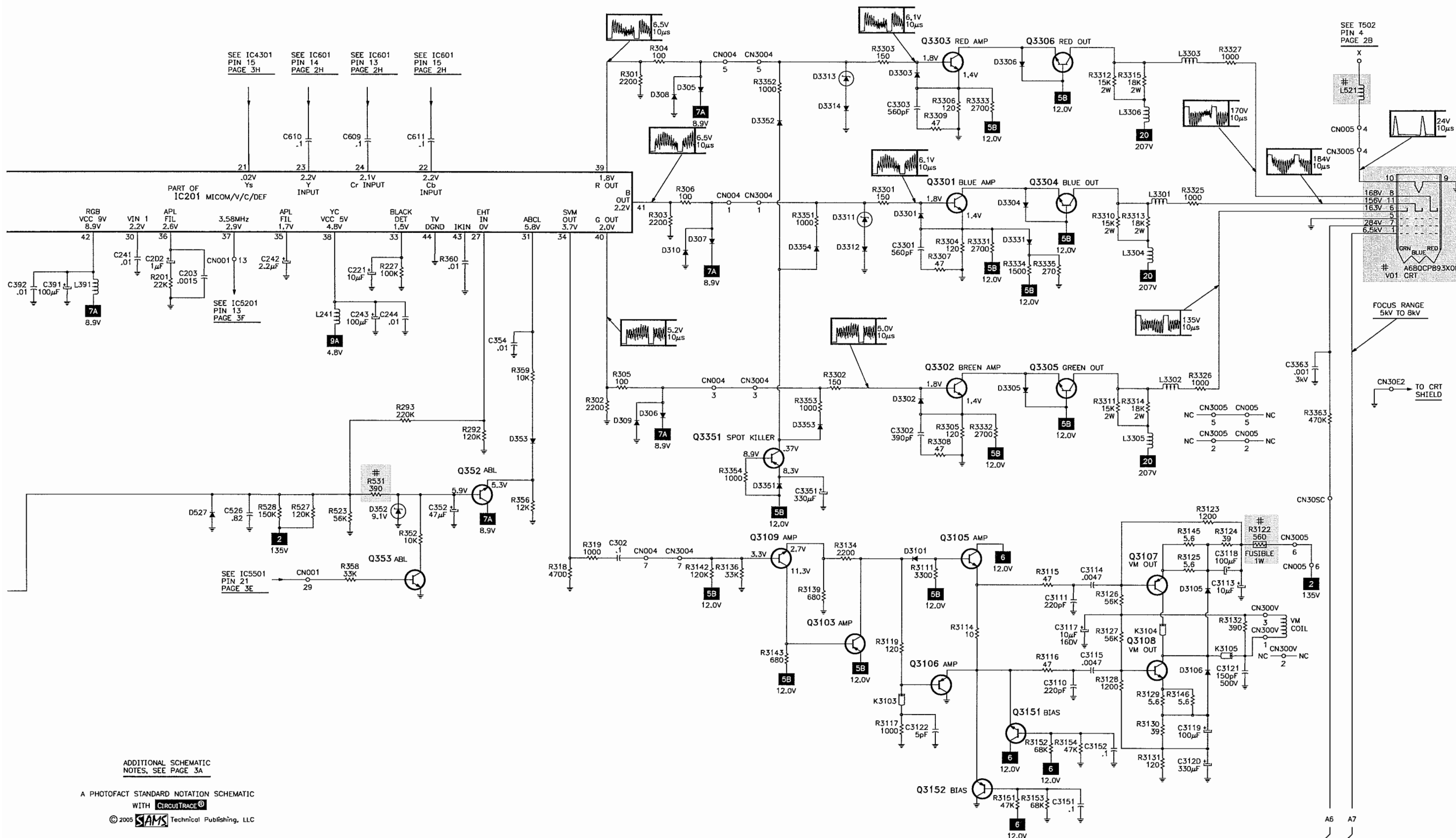
MODELS AV-27FA54/ASA, AV-27FA54/AZA

A

B

TELEVISION SCHEMATIC





ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 3A

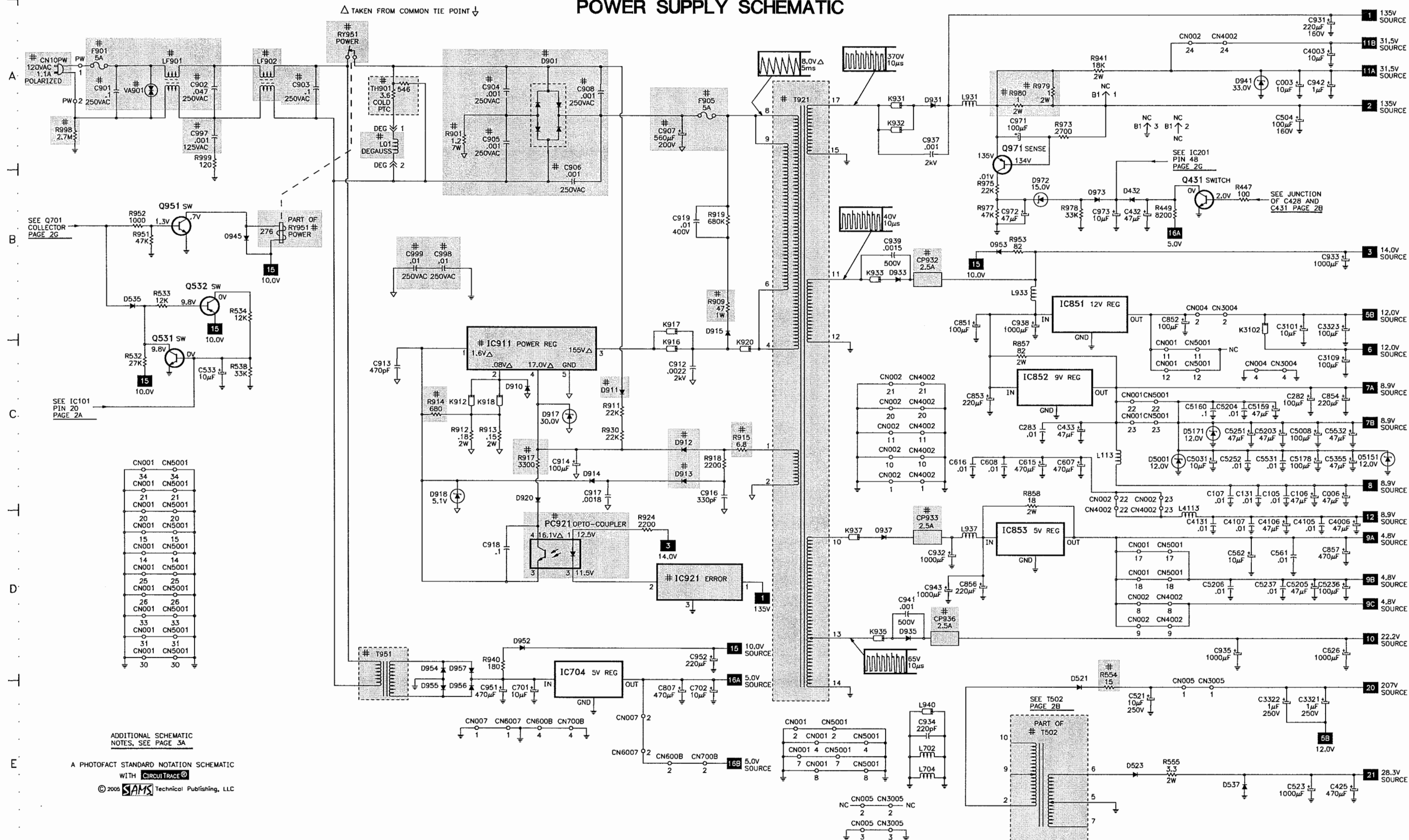
A PHOTOFACIT STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE®**

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E

POWER SUPPLY SCHEMATIC

F



G

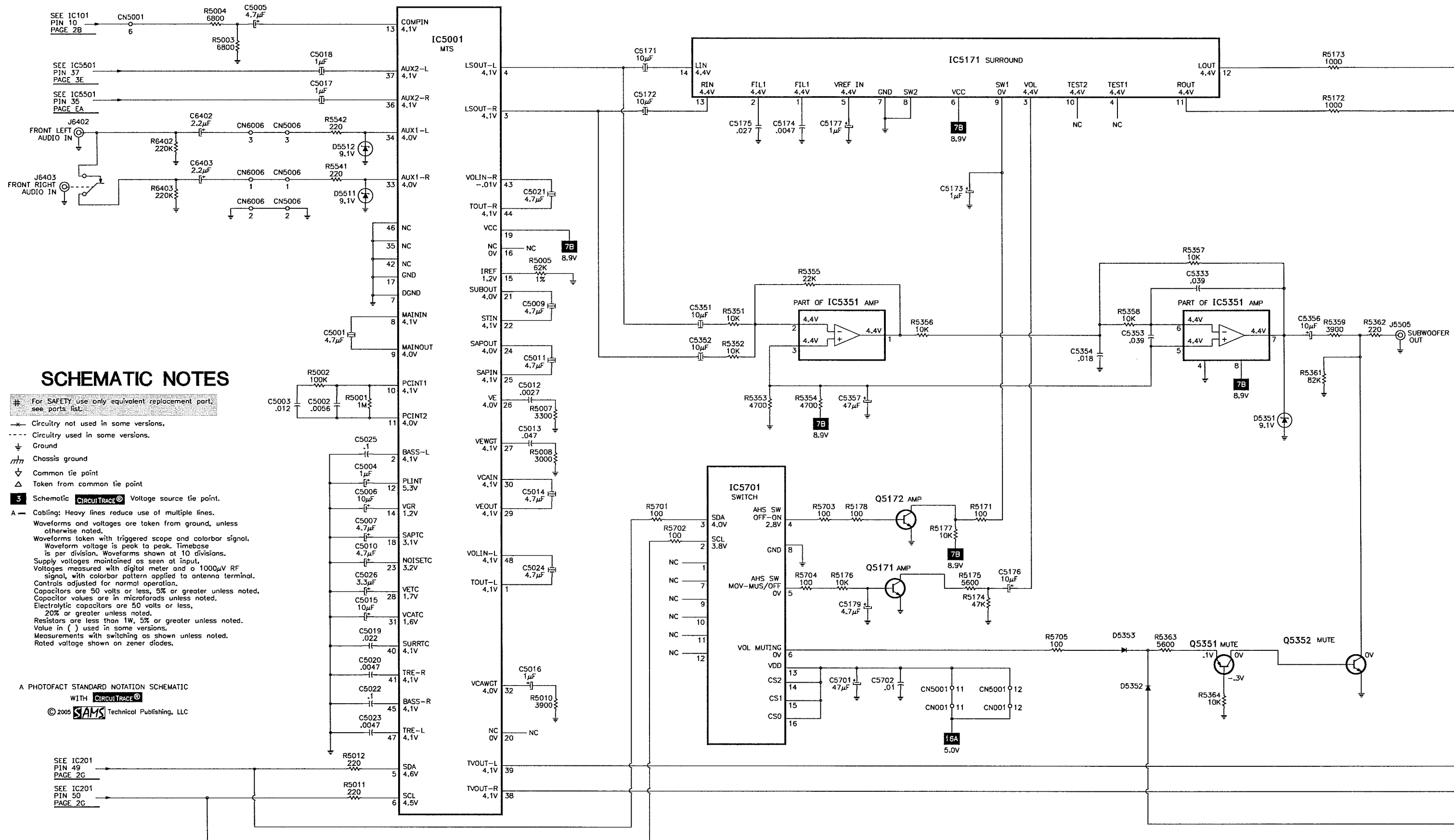


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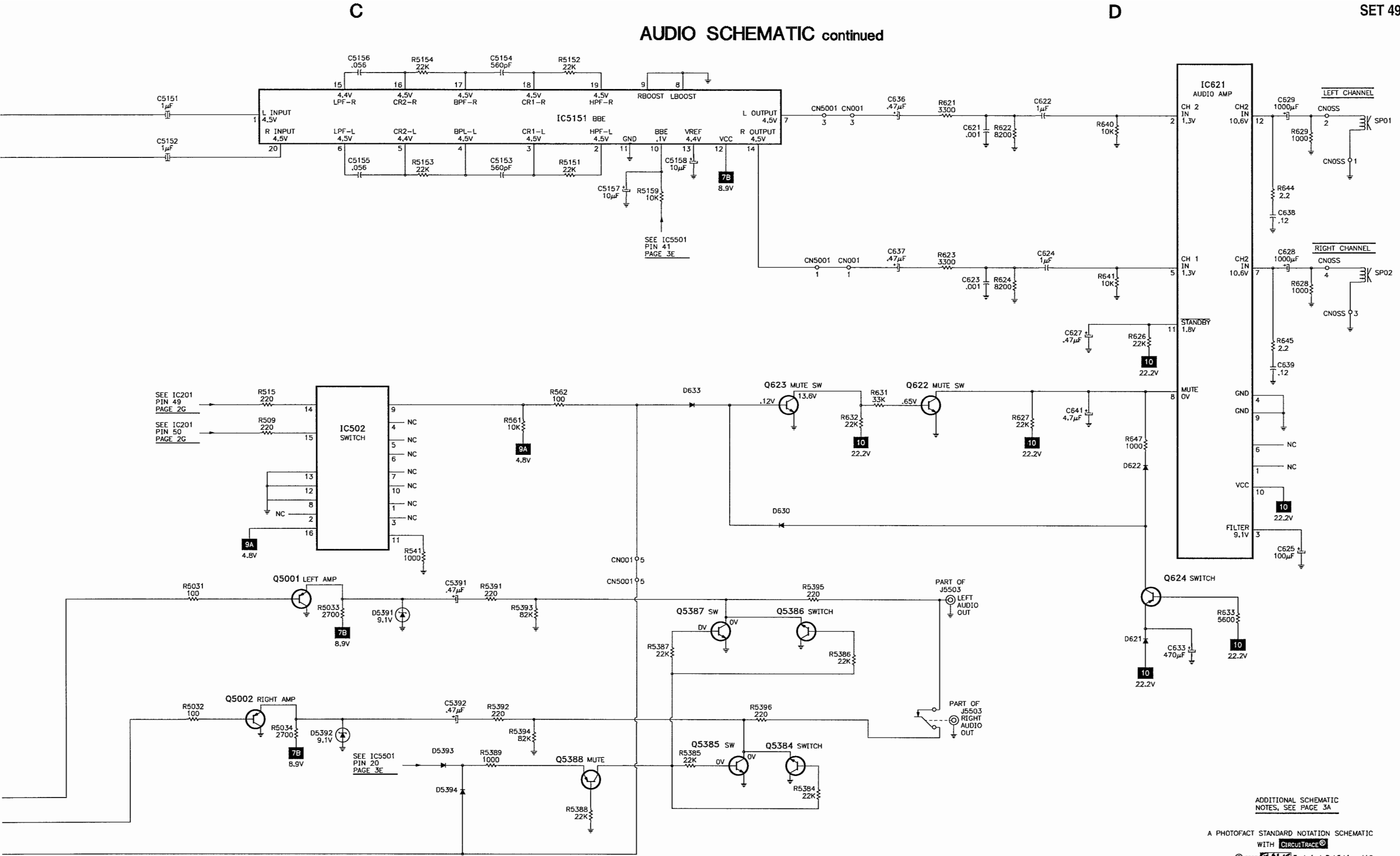


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AUDIO SCHEMATIC



AUDIO SCHEMATIC continued



ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 3A

F

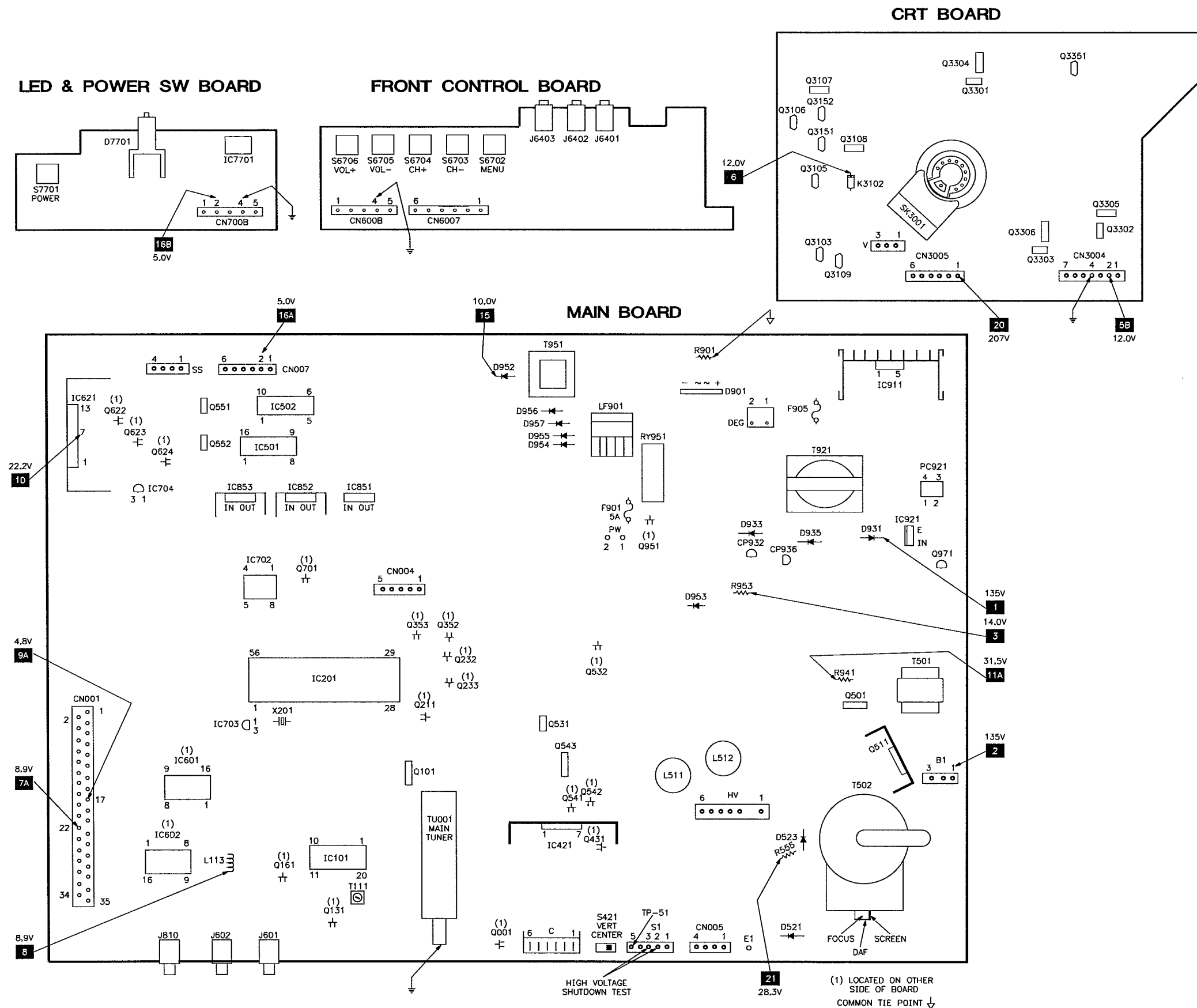


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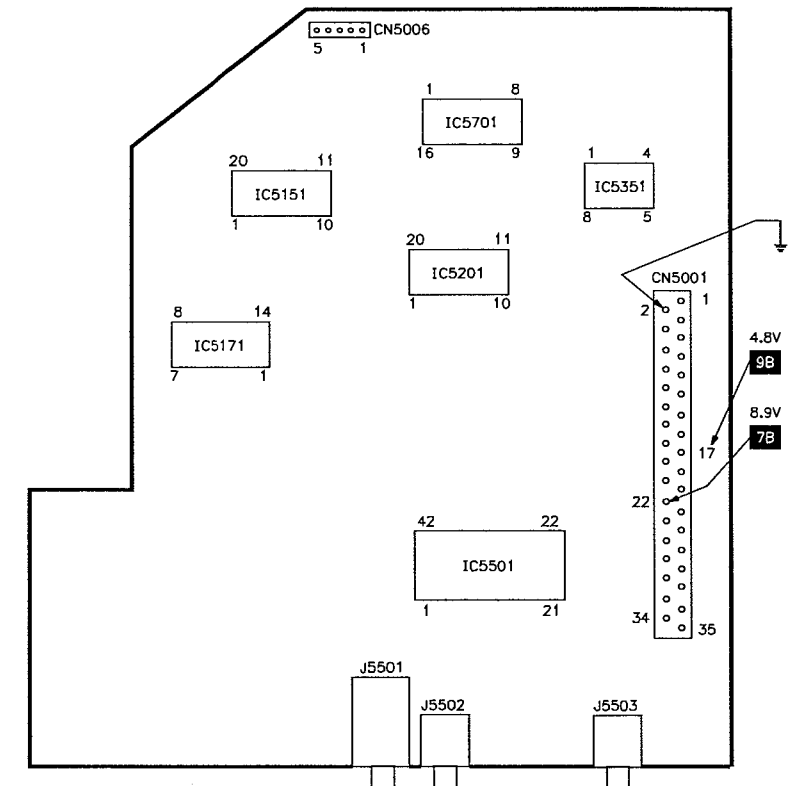
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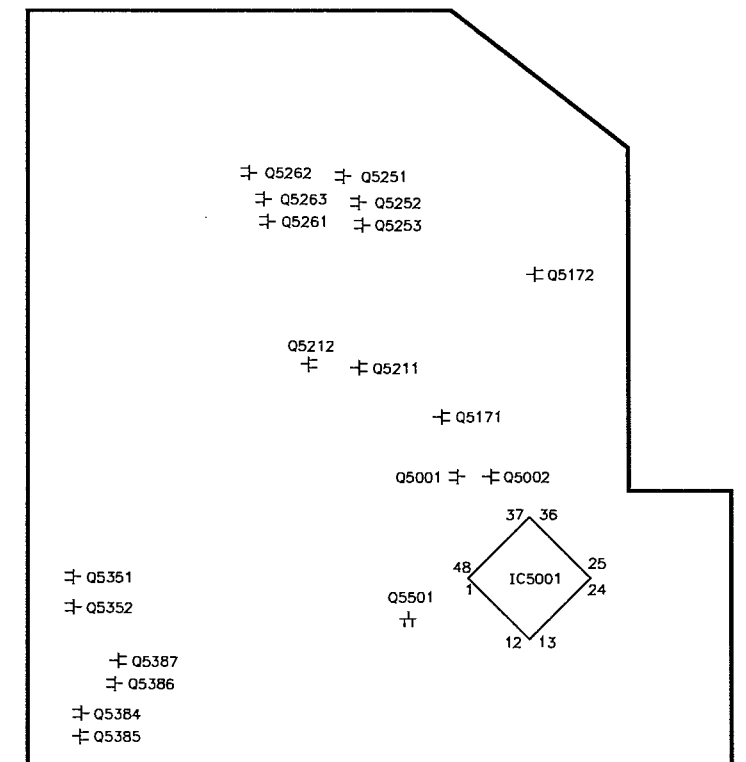
PLACEMENT CHART



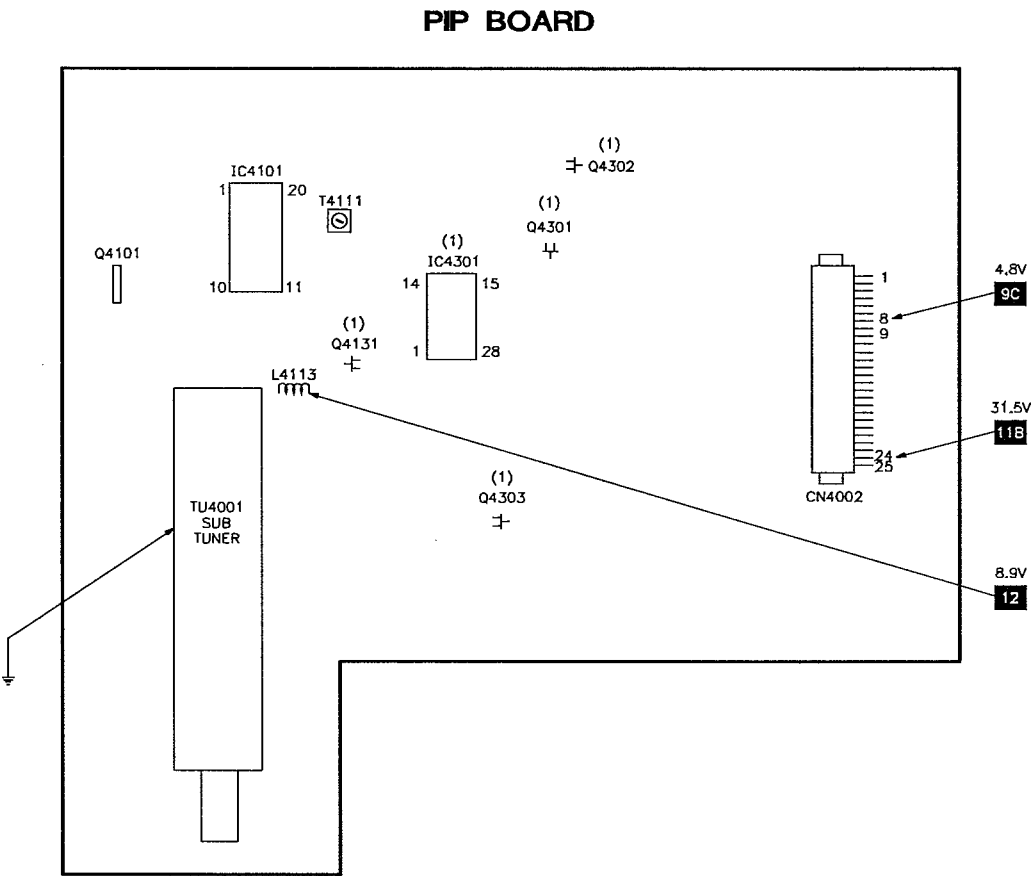
A/V BOARD - TOP VIEW



A/V BOARD - BOTTOM VIEW



PLACEMENT CHART continued



TEST EQUIPMENT

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

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

SCHEMATIC COMPONENT LOCATION GUIDE																					
C001	C1	C425	E24	C629	A48	C919	B20	C4105	D24	C5018	A34	C5246	C53	D352	D11	D920	D19	D5510	C50	J5502	C49
C003	A24	C427	E4	C633	D47	C931	A24	C4106	D24	C5019	D35	C5247	C53	D353	C11	D931	A22	D5511	B35	J5502	C49
C004	A28	C428	D5	C636	A45	C932	D22	C4107	D23	C5020	E35	C5251	C23	D354	C26	D933	B21	D5512	B35	J5502	C49
C006	C24	C431	D5	C637	B45	C933	B24	C4113	B60	C5021	B36	C5252	C23	D421	D4	D935	D21	D5513	D50	J5502	E49
C101	B1	C432	B23	C638	B48	C934	E22	C4114	B61	C5022	E35	C5253	A55	D422	D5	D937	D21	D5514	D50	J5503	D46
C102	B1	C433	C22	C639	C48	C935	D23	C4116	B61	C5023	E35	C5255	A55	D432	B23	D941	A24	D5515	E50	J5503	E46
C104	B2	C435	D4	C641	C47	C937	B22	C4117	C61	C5024	D36	C5263	B55	D501	E6	D945	B18	D7701	E28	J5504	D49
C105	C24	C440	C4	C652	B31	C938	B22	C4118	C61	C5025	C35	C5333	B39	D502	E6	D952	D19	F901	A17	J5505	C40
C106	C24	C501	E4	C653	D31	C939	B21	C4119	C61	C5026	D35	C5351	C36	D507	E6	D953	B22	F905	A20	J6401	D49
C107	C23	C502	E4	C654	C31	C941	D21	C4120	C61	C5031	C23	C5352	C36	D521	E22	D954	D19	FR525	E2	J6402	B33
C113	C3	C503	E4	C655	B32	C942	A24	C4124	B59	C5151	A41	C5353	C39	D523	E23	D955	E19	FR527	E2	J6403	B33
C114	B2	C504	A24	C656	A29	C943	D22	C4131	D23	C5152	A41	C5354	C39	D525	E2	D956	E19	IC101	A6	K401	D5
C116	B3	C505	E6	C657	B29	C951	E19	C4132	A61	C5153	B43	C5355	C24	D526	D2	D957	D19	IC101	B3	K912	C19
C117	C3	C507	E6	C658	B29	C952	D20	C4161	B61	C5154	A43	C5356	C40	D527	D10	D972	B22	IC201	B10	K916	C20
C118	C3	C508	E6	C700	B26	C971	A22	C4168	B60	C5155	B42	C5357	C37	D529	D2	D973	B23	IC201	B27	K917	C20
C119	B3	C510	E5	C701	E19	C972	B22	C4312	C62	C5156	A42	C5391	D43	D531	D2	D3101	D13	IC201	D1	K918	C19
C120	B3	C513	E6	C702	E20	C973	B23	C4313	C62	C5157	B44	C5392	E43	D535	B17	D3105	D15	IC421	C4	K920	C21
C124	B2	C514	E6	C703	C25	C997	A18	C4314	D63	C5158	A44	C5501	B50	D537	E23	D3106	E15	IC502	C42	K931	A21
C131	C23	C515	E6	C704	B27	C998	B19	C4315	D63	C5159	C24	C5502	C50	D601	E30	D3301	B13	IC601	B31	K932	A21
C161	A6	C516	D6	C705	B27	C999	B19	C4316	B62	C5160	C23	C5503	B50	D602	C30	D3302	C13	IC602	B30	K933	B21
C163	A3	C521	E23	C706	E28	C3101	C24	C4317	B62	C5171	A36	C5504	B50	D603	D30	D3303	A13	IC602	C30	K935	D21
C164	A4	C523	E24	C708	D26	C3109	C24	C4318	B62	C5172	A36	C5506	C49	D604	D30	D3304	B14	IC602	D30	K937	D21
C165	A4	C525	E2	C709	D26	C3110	E14	C4319	D63	C5173	B38	C5508	A49	D605	B30	D3305	C14	IC621	A47	K3102	C24
C166	A5	C526	D10	C711	B27	C3111	D14	C4320	D63	C5174	A37	C5509	A50	D606	C30	D3306	A14	IC702	D25	K3103	E13
C202	B9	C527	E2	C712	B27	C3113	D15	C4321	E63	C5175	A37	C5520	C50	D621	D47	D3311	B13	IC703	C26	K3104	D15
C203	B10	C533	C18	C716	C8	C3114	D14	C4322	E63	C5176	D38	C5521	C50	D622	C47	D3312	B13	IC704	D20	K3105	E15
C211	B7	C561	D24	C721	B26	C3115	E14	C4323	D63	C5177	A37	C5531	C24	D630	C45	D3313	A13	IC851	B23	L001	A27
C212	A7	C562	D23	C726	E58	C3117	D14	C4324	D63	C5178	C24	C5532	C24	D633	C44	D3314	B13	IC852	C22	L01	A19
C221	B10	C601	E30	C728	C26	C3118	D15	C4325	C63	C5179	D37	C5533	D51	D653	D31	D3331	B14	IC853	D22	L101	B2
C222	B8	C602	C30	C807	E20	C3119	E15	C4326	A62	C5203	C24	C5534	E51	D654	C31	D3351	D13	IC911	C19	L113	C23
C223	B6	C603	D30	C813	E26	C3120	E15	C4327	C63	C5204	C23	C5544	D50	D700	E27	D3352	B13	IC921	D20	L131	B5
C233	B7	C604	B30	C815	C26	C3121	E15	C4328	C63	C5205	D24	C5545	E50	D701	E27	D3353	C13	IC4101	A60	L161	A3
C237	B8	C605	B30	C851	B22	C3122	E13	C4329	C63	C5206	D23	C5701	E37	D703	D27	D3354	B13	IC4301	A62	L232	B7
C241	B9	C606	A30	C852	B23	C3151	E14	C4330	C63	C5211	A51	C5702	E37	D704	C27	D4301	D61	IC5001	A35	L241	C10
C242	B10	C607	C22	C853	C22	C3152	E14	C4331	D61	C5212	A52	C6401	D49	D705	C25	D5001	C23	IC5151	A44	L391	C9
C243	C10	C608	C22	C854	C24	C3301	B13	C5001	C34	C5213	A52	C6402	B34	D706	B28	D5151	C24	IC5171	A38	L511	D6
C244	C11	C609	B10	C856	D22	C3302	C13	C5002	C34	C5214	A53	C6403	B34	D707	C28	D5171	C23	IC5201	A53	L512	E6
C281	D3	C610	B10	C857	D24	C3303	B13	C5003	C34	C5215	A53	C7701	B25	D708	D26	D5351	C40	IC5351	B37	L521	A16
C282	C24	C611	B11	C901	A17	C3321	E24	C5004	C35	C5226	A53	CF001	B1	D709	D26	D5352	E39	IC5351	B39	L701	B27
C283	C22	C612	D30	C902	A18	C3322	E24	C5005	A34	C5231	B53	CF131	B5	D721	D58	D5353	D39	IC5501	A51	L702	E22
C284	D1	C613	B30	C903	A18	C3323	C24	C5006	D35	C5232	B53	CF161	A4	D722	E59	D5391	D43	IC5701	D37	L703	E27
C285	D1	C614	C30	C904	A19	C3351	D13	C5007	D35	C5233	B53	CF4131	A61	D723	B26	D5392	E42	IC7701	A25	L704	E22
C286	D1	C615	C22	C905	A19	C3363	C15	C5008	C24	C5234	C53	CN10PW	A17	D810	E26	D5393	E43	J601	C29	L705	A27
C287	C26	C616	C22	C906	B20	C4001	B59	C5009	B36	C5235	C53	CP932	B22	D901	A19	D5394	E43	J601	D29	L931	A22
C288	C26	C621	A46	C907	A20	C4003	A24	C5010	D35	C5236	D24	CP933	D22	D910	C19	D5501	B50	J602	B29	L933	B22
C302	D12	C622	A46	C908	A20	C4004	B58	C5011	C36	C5237	D24	CP936	D22	D911	C20	D5502	C50	J602	C29	L937	D22
C352	D11	C623	B46	C912	C20	C4006	D24	C5012	C35	C5238	B54	D305	A12	D912	C20	D5503	B50	J602	D29	L940	E22
C354	C11	C624	B46	C913	C19	C4010	A58	C5013	C35	C5239	B54	D306	C12	D913	C20	D5504	B50	J602	E29	L3301	B15
C391	C9	C625	D48	C914	C20	C4011	A58	C5014	C36	C5240	C53	D307	B12	D914	C20	D5505	A50	J810	E25	L3302	C15
C392	C9	C626	D24	C916	C20	C4101	A59	C5015	D35	C5241	C53	D308	B12	D915	C20	D5507	A50	J5501	B49	L3303	A15
C422	D4	C627	B47	C917	C20	C4102	B59	C5016	E35	C5242	B54	D309	C12	D917	C20	D5508	C50	J5501	B49	L3304	B15
C424	D4	C628	B48	C918	D19	C4104	A59	C5017	A34	C5243	B54	D310	B12	D918	C19	D5509	C50	J5501	C49	L3305	C15

SCHEMATIC COMPONENT LOCATION GUIDE continued

L3306	B15	Q3107	D15	R113	C2	R360	B11	R605	B29	R769	D27	R3131	E15	R4113	B59	R5171	D38	R5394	E43	R7708	E28
L4001	B58	Q3108	E15	R115	B1	R421	D4	R606	C29	R772	D28	R3132	D15	R4114	A60	R5172	A40	R5395	D45	R7709	A25
L4101	A59	Q3109	D13	R116	B3	R423	E4	R614	C32	R775	E58	R3134	D13	R4115	B61	R5173	A40	R5396	E45	R7710	B25
L4113	D23	Q3151	E14	R117	C2	R424	E4	R615	C32	R776	E58	R3136	D12	R4116	C60	R5174	D38	R5501	B50	R7711	B25
L4131	A61	Q3152	E14	R118	C2	R426	D4	R616	D31	R811	E26	R3139	D13	R4117	B59	R5175	D38	R5502	C50	RY951	A18
L4302	D63	Q3301	B13	R131	B4	R427	D5	R617	B31	R812	E26	R3142	D12	R4118	B59	R5176	D37	R5503	B50	RY951	B18
L4303	E63	Q3302	C13	R132	B4	R429	D3	R618	C31	R816	C26	R3143	D13	R4120	B59	R5177	D38	R5504	B50	S421	D6
L4304	D63	Q3303	A13	R133	B5	R431	D5	R621	A46	R821	C26	R3145	D15	R4121	B60	R5178	D37	R5505	A50	S6702	B25
L5202	A55	Q3304	B14	R134	B5	R432	D5	R622	A46	R822	C26	R3146	E15	R4131	A61	R5211	A52	R5507	A50	S6703	B25
L5211	A52	Q3305	C14	R135	B5	R433	D5	R623	B46	R827	D27	R3151	E14	R4132	A61	R5212	A52	R5508	A50	S6704	B25
L5241	B53	Q3306	A14	R161	A6	R434	D5	R624	B46	R857	C22	R3152	E14	R4133	A61	R5213	A52	R5509	A50	S6705	B25
L5243	B54	Q3351	C12	R163	C3	R435	D5	R626	B47	R858	D22	R3153	E14	R4134	A61	R5214	A52	R5510	C50	S6706	B26
L5244	B54	Q4101	A59	R164	B3	R447	B23	R627	C46	R901	A19	R3154	E14	R4135	A62	R5215	A52	R5511	C50	S7701	B25
L5261	B55	Q4131	A61	R165	A4	R449	B23	R628	B48	R909	B20	R3301	B13	R4161	B60	R5216	A53	R5512	C50	SF101	B2
LC601	E29	Q4301	D61	R166	A4	R502	E3	R629	A48	R911	C20	R3302	C13	R4163	C60	R5217	A52	R5513	D50	SF4101	A60
LC602	C29	Q4302	E62	R167	A5	R503	E4	R631	C45	R912	C19	R3303	A13	R4171	C60	R5241	C53	R5514	C51	SP01	A48
LC603	D29	Q4303	D60	R168	A5	R504	E4	R632	C45	R913	C19	R3304	B14	R4301	D61	R5242	D53	R5515	D51	SP02	B48
LC604	D29	Q4331	A63	R169	A5	R505	E4	R633	D47	R914	C19	R3305	C14	R4302	D61	R5243	D53	R5516	D51	T111	B3
LC605	B29	Q4332	B63	R171	C3	R509	C42	R640	A47	R915	C21	R3306	B14	R4303	D62	R5251	A54	R5517	C51	T501	E4
LC606	C29	Q4333	B63	R201	B9	R511	E5	R641	B47	R917	C19	R3307	B13	R4304	E61	R5253	A55	R5519	A49	T502	C7
LC6401	D49	Q5001	D42	R212	B7	R512	D6	R644	B48	R918	C20	R3308	C13	R4306	E62	R5254	A55	R5520	A49	T502	E22
LF901	A17	Q5002	E42	R215	B7	R513	E6	R645	B48	R919	B20	R3309	B13	R4307	D60	R5255	A55	R5521	B49	T921	A21
LF902	A18	Q5171	D37	R216	B7	R515	C42	R647	C47	R924	D20	R3310	B14	R4308	D60	R5258	A54	R5522	B49	T951	D19
PC921	D20	Q5172	D37	R217	B8	R516	C7	R655	D31	R930	C20	R3311	C14	R4309	D61	R5259	A54	R5523	C49	T4111	C60
Q001	B27	Q5211	A52	R227	B11	R523	D10	R700	A26	R940	D19	R3312	A14	R4311	C62	R5261	B54	R5524	B49	TH901	A19
Q101	B1	Q5212	A53	R231	B7	R526	D2	R701	C25	R941	A23	R3313	B15	R4313	D62	R5262	B54	R5526	B49	TU4001	B58
Q131	B5	Q5251	A55	R237	B7	R527	D10	R702	B26	R951	B17	R3314	C15	R4316	B63	R5263	B54	R5527	C49	V01	B16
Q161	A4	Q5252	A56	R238	C7	R528	D10	R704	E26	R952	B17	R3315	A15	R4331	A63	R5265	B55	R5532	C49	VA901	A17
Q211	B7	Q5253	A54	R241	B7	R529	D2	R705	D26	R953	B22	R3325	B15	R4332	A63	R5269	B55	R5533	C49	VM	D15
Q232	C7	Q5261	B54	R243	B7	R531	D10	R706	B26	R973	A22	R3326	C15	R4337	B63	R5270	B55	R5541	B34	X	D7
Q233	B7	Q5262	B55	R281	D4	R532	C17	R707	C26	R975	B22	R3327	A15	R4338	B63	R5351	C37	R5542	B34	X701	D26
Q352	D11	Q5263	B56	R282	D1	R533	B17	R708	E26	R977	B22	R3331	B14	R4343	B63	R5352	C37	R5543	D50	X4301	C62
Q353	D11	Q5351	D39	R283	D3	R534	B18	R709	D26	R978	B22	R3332	C14	R4344	B63	R5353	C37	R5544	E50		
Q431	B23	Q5352	D40	R286	D2	R535	E2	R714	B26	R979	A22	R3333	B14	R5001	C35	R5354	C37	R5545	E50		
Q501	E4	Q5384	E45	R287	E2	R537	E2	R715	E26	R980	A22	R3334	B14	R5002	C34	R5355	B37	R5546	C51		
Q511	E5	Q5385	E45	R288	C26	R538	C18	R718	C8	R998	A17	R3335	B14	R5003	A34	R5356	C38	R5566	D49		
Q531	C17	Q5386	D45	R289	D1	R541	D43	R721	E27	R999	B18	R3351	B13	R5004	A34	R5357	B39	R5567	E49		
Q532	B18	Q5387	D44	R290	C26	R543	E2	R728	E28	R3111	D13	R3352	A13	R5005	B35	R5358	C39	R5568	D50		
Q541	E2	Q5388	E44	R292	C11	R544	E3	R729	E27	R3114	D14	R3353	C13	R5007	C36	R5359	C40	R5569	E50		
Q542	E3	Q5501	B50	R293	C11	R545	E3	R731	D27	R3115	D14	R3354	D12	R5008	C36	R5361	C40	R5701	D36		
Q543	E3	Q7702	E28	R301	A12	R546	E2	R732	C27	R3116	E14	R3363	C16	R5010	E36	R5362	C40	R5702	D36		
Q622	C46	R003	D27	R302	C12	R547	E2	R733	D27	R3117	E13	R4001	B58	R5011	E34	R5363	D39	R5703	D37		
Q623	C45	R004	C27	R303	B12	R548	E3	R734	C27	R3119	D13	R4002	B58	R5012	E34	R5364	E39	R5704	D37		
Q624	D47	R008	B1	R304	A12	R553	E3	R737	E59	R3122	D15	R4003	A57	R5031	D42	R5384	E45	R5705	D38		
Q700	D59	R009	B28	R305	C12	R554	E23	R740	D27	R3123	D15	R4004	A57	R5032	E42	R5385	E44	R6401	D49		
Q701	D27	R101	B1	R306	B12	R555	E23	R754	D59	R3124	D15	R4008	A59	R5033	D42	R5386	D45	R6402	B34		
Q705	E59	R102	B1	R318	D11	R561	C43	R755	D58	R3125	D15	R4101	A59	R5034	E42	R5387	D44	R6403	B34		
Q951	B17	R103	B2	R319	D12	R562	C44	R756	D58	R3126	D14	R4102	A59	R5151	B44	R5388	E44	R6702	B26		
Q971	B22	R104	B2	R352	D11	R601	E29	R764	C27	R3127	D14	R4103	A59	R5152	A44	R5389	E43	R6703	B26		
Q3103	D13	R105	B2	R356	D11	R602	C29	R765	B28	R3128	E14	R4104	A59	R5153	B43	R5391	D43	R6704	B25		
Q3105	D14	R111	B2	R358	D10	R603	D29	R766	D26	R3129	E15	R4105	B59	R5154	A43	R5392	E43	R6705	B25		
Q3106	E13	R112	B1	R359	C11	R604	D29	R767	D26	R3130	E15	R4111	B61	R5159	B44	R5393	D43	R6706	B25		

PARTS LIST

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D305 Thru			
D310	-	1SS133-T2	NTE177
D352	-	MTZJ9.1C-T2	-
D353	-	1SS133-T2	NTE177
D354	-	MTZJ3.3A-T2	-
D421	-	1N4003-T2	NTE116
D422	-	MTZJ75-T2	-
D432	-	1SS133-T2	NTE177
D501	-	RH3G-F1	-
# D502	-	RU3AM-LFC4	NTE580
D507	-	RGP10J-5025-T3	-
D521	-	RH1S-T3	NTE552
D523	-	RGP10J-5025-T3	-
D525, 26	-	1SS81-T5	NTE177
D527	-	1SR124-400A-T2	-
D529	-	MTZJ9.1C-T2	-
# D531	-	MA4068N/Z1/-T2	-
D535	-	1SS133-T2	NTE177
D537	-	1SR35-400A-T2	-
D601 Thru			
D606	-	MTZJ9.1C-T2	-
D621, 22	-	1SS133-T2	NTE177
D630, 33	-	1SS133-T2	NTE177
D653, 54	-	1SS133-T2	NTE177
D700	-	MTZJ5.6B-T2	-
D701	-	1SS133-T2	NTE177
D703, 04	-	MTZJ5.6B-T2	-
D705	-	1SS133-T2	NTE177
D706 Thru			
D709	-	MTZJ5.6B-T2	-
D721, 22	-	1SS133-T2	NTE177
D723	-	MTZJ5.6B-T2	-
D810	-	MTZJ5.6B-T2	-
# D901	-	GSIB460-S1	-
D910	-	MA700A-T2	-
# D911, 12, 13	-	RGP10J-5025-T3	-
D914	-	1SS133-T2	NTE177
D915	-	SARS01-T2	-
D917	-	MTZJ30A-T2	-
D918	-	MTZJ5.1C-T2	-
D920	-	1SS133-T2	NTE177
D931	-	RU30A-F1	-
D933, 35, 37	-	RU3YX-LFCA	-
D941	-	MTZJ33A-T2	-
D945	-	MTZJ9.1B-T2	-
D952, 53	-	1SS133-T2	NTE177

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D954 Thru			
D957	-	1SR35-400A-T2	-
D972	-	MTZJ15C-T2	-
D973	-	1SS133-T2	NTE177
D3101	-	1SS133-T2	NTE177
D3105, 06	-	RH1S-T3	NTE552
D3301, 02, 03	-	1SS133-T2	NTE177
D3304, 05, 06	-	1SS82-T2	-
D3311	-	MTZJ3.6B-T2	-
D3312	-	1SS133-T2	NTE177
D3313	-	MTZJ4.3A-T2	-
D3314, 31	-	1SS133-T2	NTE177
D3351 Thru			
D3354	-	1SS133-T2	NTE177
D4301	-	1SS133-T2	NTE177
D5001	-	MTZJ12C-T2	-
D5151, 71	-	MTZJ12C-T2	-
D5351	-	MTZJ9.1C-T2	-
D5352, 53	-	1SS133-T2	NTE177
D5391, 92	-	MTZJ9.1C-T2	-
D5393, 94	-	1SS133-T2	NTE177
D5501 Thru			
D5505	-	MTZJ9.1C-T2	-
D5507 Thru			
D5515	-	MTZJ9.1C-T2	-
D7701	-	LG22440	-
IC101	-	M52342SP	-
IC201	-	TM8812CSDNG4UC1	-
# IC421	-	LA7841	-
IC502	-	CXA1875AM-X	-
IC601	-	TA1287F-X	-
IC602	-	M52055FP-X	-
IC621	-	AN5277	-
IC702	-	AT24WC04-32FA54	-
IC703	-	S-80840CNY-T	-
IC704	-	AN78L05-T	-
IC851	-	L7812CP	NTE1970
IC852	-	L7809CP	NTE1966
IC853	-	L7805CP	NTE1960
# IC911	-	STR-F6626/F3	-
# IC921	-	SE135N	-
IC4101	-	M52342SP	-
IC4301	-	SDA9389X-X	-
IC5001	-	CXA2134Q-X	-
IC5151	-	NJM2150AD	-
IC5171	-	NJM2701M-X	-

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.
IC5201	-	TC90A49AP	-
IC5351	-	BA4558F-X	-
IC5501	-	TA1218AN	-
IC5701	-	M62320FP-X	-
# PC921	-	TLP421F/D4-GR/	-
Q001	-	UN2212-X	-
Q101	-	2SC5083/L-P/-T	-
Q131	-	2SB709A/QR/-X	NTE2409
Q161	-	2SD601A/QR/-X	NTE2408
Q211, 32, 33	-	2SD601A/QR/-X	NTE2408
Q352, 53	-	2SD601A/QR/-X	NTE2408
Q431	-	UN2212-X	-
Q501	-	2SC4212/Z1/	-
# Q511	-	2SD2645-YD	-
Q531	-	2SC2785/JH/-T	NTE2361
Q532, 41, 42	-	2SB709A/QR/-X	NTE2409
Q543	-	2SD1408/OY/-LB	NTE291
Q622	-	2SD601A/QR/-X	NTE2408
Q623	-	UN2212-X	-
Q624	-	2SB709A/QR/-X	NTE2409
Q700	-	2SD601A/QR/-X	NTE2408
Q701	-	2SB709A/QR/-X	NTE2409
Q705	-	2SD601A/QR/-X	NTE2408
Q951	-	2SD1383K/AB/-X	NTE2404
Q971	-	2SA1208/ST/Z1-T	-
Q3103	-	2SA933AS/QR/-T	NTE290A
Q3105	-	2SC1740S/QR/-T	-
Q3106	-	2SA933AS/QR/-T	NTE290A
Q3107	-	2SA1964/DE/	-
Q3108	-	2SC5248/DE/	-
Q3109, 51	-	2SC1740S/QR/-T	-
Q3152	-	2SA933AS/QR/-T	NTE290A
Q3301, 02, 03	-	2SC5083/L-P/-T	-
Q3304, 05, 06	-	2SC5147/CDE/F43	-
Q3351	-	2SA933AS/QR/-T	NTE290A
Q4101	-	2SC5083/L-P/-T	-
Q4131	-	2SA1037AK/QR/-X	NTE2409
Q4301, 02, 03	-	2SD601A/QR/-X	NTE2408
Q4331, 32, 33	-	2SB709A/QR/-X	NTE2409
Q5001, 02	-	2SB709A/QR/-X	NTE2409
Q5171, 72	-	2SD601A/QR/-X	NTE2408
Q5211, 12, 51	-	2SD601A/QR/-X	NTE2408
Q5252, 53	-	2SB709A/QR/-X	NTE2409
Q5261	-	2SB709A/QR/-X	NTE2409
Q5262	-	2SD601A/QR/-X	NTE2408
Q5263	-	2SB709A/QR/-X	NTE2409

Item No.	Type No.	Mfr. Part No.	NTE Part No.
Q5351	-	2SB709A/QR/-X	NTE2409
Q5352	-	UN2226-X	-
Q5384 Thru	-		
Q5387	-	UN2226-X	-
Q5388	-	2SB709A/QR/-X	NTE2409
Q5501	-	2SB709A/QR/-X	NTE2409
Q7702	-	UN2112-X	-

Item No.	Function/Rating	Mfr. Part No.	Notes
C211	10µF 20% 16V NP	QENC1CM-106Z	-
C505	2.2µF 20% 100V NP	QENC2AM-225Z	-
# C510	.0058 3% 1.5kV	QFZ0200-582	-
	.0061 3% 1.5kV	QFZ0196-612	-
# C513	.011 3% 1.5kV	QFZ0196-113	-
# C514	.018 5% 400V	QFP32GJ-183	-
# C515	.4 5% 250V	QFZ0199-404	-
	.35 5% 250V	QFZ0197-354	-
# C901	.1 10% 250VAC	QFZ9072-104	-
# C902	.047 10% 250VAC	QFZ9072-473	-
# C903	.1 10% 250VAC	QFZ9072-104	-
# C904, 05, 06	.001 250VAC	QCZ9054-102	-
# C907	560µF 10% 200V	QEZ0644-567	-
# C908	.001 250VAC	QCZ9054-102	-
C912	.0022 10% 2kV	QCZ0340-222	-
C937	.001 10% 2kV	QCZ0340-102	-
# C997	.001 20% 125VAC	QCZ9052-102	-
# C998, 99	.01 20% 250VAC	QCZ9074-103	-
C3363	.001 3kV	QCZ0324-102	-
C5001, 09	4.7µF 20% 50V NP	QENC1HM-475Z	-
C5011, 14	4.7µF 20% 50V NP	QENC1HM-475Z	-
C5017, 18	1µF 20% 50V NP	QENC1HM-105Z	-
C5021, 24	4.7µF 20% 50V NP	QENC1HM-475Z	-
C5026	3.3µF 10% 16V Tantalum	QBTC1CK-335Z	-
C5151, 52	1µF 20% 50V NP	QENC1HM-105Z	-
C5171, 72	10µF 20% 50V NP	QENC1HM-106Z	-
C5211	10µF 20% 16V NP	QENC1CM-106Z	-
C5351, 52	10µF 20% 50V NP	QENC1HM-106Z	-
C5504, 34	10µF 20% 16V NP	QENC1CM-106Z	-
CF001	Trap	QAX0349-001	47.25MHz
CF131	Trap	QAX0639-001Z	4.5MHz
CF161	Filter	QAX0642-001Z	4.5MHz
CF4131	Trap	QAX0639-001Z	4.5MHz
# CN10PW	Line Cord	QMPD390-200-JS	AC, Polarized
# CP932, 33, 36	IC Protector	ICP-N70-T	2.5Amp
# DY01 (4)	Yoke	-	-
# F901	Fuse	QMF51N1-5R0-J5	5Amp, 125VAC

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes
# F905	Fuse	QMFZ049-5R0Z-E	5Amp, 125V
FC901, 02	Fuse Holder	CEMD002-001Z	For F901, 05 (2 Used, Each)
# FR525	4.7 5% 1/4W Fusible	QRZ9017-4R7	-
# FR527	47 5% 1/2W Fusible	QRZ9011-470	-
IC7701	Receiver	GP1UM281QK	Remote
J601	Jack	QNN0349-002	Assembly
J602	Jack	QNN0349-002	Assembly
J810	Jack	QNS0001-001	Compulink
J5501	Jack	QNZ0454-001	Assembly
J5502	Jack	QNN0349-001	Assembly
J5503	Jack	QNN0348-001	Assembly
J5504	Jack	QNN0348-001	Assembly
J5505	Jack	QNN0282-004	Subwoofer Output
J6401	Jack	QNN0281-003	Front Video Input
J6402	Jack	QNN0281-002	Front Left Audio Input
J6403	Jack	QNN0282-001	Front Right Audio Input
K401	Ferrite Bead	QQR0621-002Z	-
K912, 16, 17, 18	Ferrite Bead	QQR0582-001Z	-
K920	Ferrite Bead	QQR0872-002	-
K931, 32, 33	Ferrite Bead	QQR0582-001Z	-
K935, 37	Ferrite Bead	QQR0582-001Z	-
K3102 Thru			
K3105	-	CE41492-001Z	-
L001	56µH	QQL244K-560Z	-
# L01	Degaussing	QQW0090-001	-
L101	.22µH	QQLZ014-R22	-
L113	4.7µH	QQL244K-4R7Z	-
L131	15µH	QQL244K-150Z	-
L161	22µH	QQL244K-220Z	-
L232	56µH	QQL244K-560Z	-
L241	22µH	QQL244K-220Z	-
L391	22µH	QQL244K-220Z	-
# L511 (1)	Horizontal Linearity	QQR1165-001	-
# L511 (2)	Horizontal Linearity	QQR1165-004	-
L512	820µH	QQLZ036-821	-
# L521 (1)	-	QQR1333-001	-
# L521 (2)	80µH	QQLZ026-800	-
L701 Thru			
L705	22µH	QQL244K-220Z	-
L931, 33, 37	47µH	QQL26AK-470Z	-
L940	Ferrite Bead	QQR0582-001Z	-
L3301, 02, 03	18µH	QQL244K-180Z	-
L3304, 05, 06	47µH	QQL244K-470Z	-
L4001	56µH	QQL244K-560Z	-
L4101	.22µH	QQLZ014-R22	-
L4113	4.7µH	QQL244K-4R7Z	-

Item No.	Function/Rating	Mfr. Part No.	Notes
L4131	15µH	QQL244K-150Z	-
L4302, 03, 04	6.8µH	QQL244J-6R8Z	-
L5202	15µH	QQL244K-150Z	-
L5211, 41, 43, 44	4.7µH	QQL244K-4R7Z	-
L5261	15µH	QQL244K-150Z	-
LC601 Thru			
LC606	Filter EMI	QQR1199-001	-
LC6401	Filter EMI	QQR1199-001	-
# LF901	Line Filter	QQR1159-001	-
# LF902	Line Filter	QQR0527-004	-
R504	1500 5% 3W	QRL039J-152	-
R505	1800 5% 3W	QRL039J-182	-
R513	27K 5% 3W	QRL039J-273	-
R516	2 10% 7W	QRZ0221-2R0	-
# R531	390 5% 1/4W	QRJ146J-391X	-
# R535	2200 .5% 1/10W	NRVA02D-222X	-
	2400 .5% 1/10W	NRVA02D-242X	-
# R537	7150	NRZ0032-7151X	-
	6800 .5% 1/10W	NRVA02D-682X	-
R553	39 5% 3W	QRL039J-390	-
# R554	15 5% 1/2W	QRK126J-150X	-
# R901	1.2 10% 7W	QRF074K-1R2	-
# R909	47 5% 1W	QRG01GJ-470	-
# R914	680 5% 1/2W	QRK126J-681X	-
# R915	6.8 5% 1/2W	QRK129J-6R8	-
# R917	3300 5% 1/2W	QRK126J-332X	-
R939	1.5 5% 3W	QRT039J-1R5	-
# R979, 80	1 5% 2W	QRT029J-1R0	-
# R998	2.7M 10% 1/2W	QRZ9041-275	-
# R3122	560 5% 1W Fusible	QRZ9021-561	-
R5005	62K 1% 1/16W	NRSA63F-623X	-
# RY951	Relay	QSK0085-001	-
S421	Switch	QSL4A13-C02	Vertical Centering
S6702	Switch	QSW0619-003Z	Menu
S6703	Switch	QSW0619-003Z	Channel +
S6704	Switch	QSW0619-003Z	Channel -
S6705	Switch	QSW0619-003Z	Volume -
S6706	Switch	QSW0619-003Z	Volume +
S7701	Switch	QSW0847-001	Power
SF101	Filter	QAX0723-001	SAW
SF4101	Filter	CE42589-201	SAW
# SK3001	Socket	QNZ0464-001	CRT
SP01, 02	Speaker	QAS0131-001	-
T111	VCO	QQR0907-001	-
T501	Horizontal Drive	CE42034-002	-
# T502 (1)(3)	Horizontal Output	QQH0121-001	-

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes
# T502 (2)(3)	Horizontal Output	QQH0152-001	-
# T921	Switching	QQS0225-001	-
# T951	Power	QQT0372-001	-
T4111	PIP VCO	QQR0907-001	-
# TH901	3.6 Cold PTC/546	QAD0132-3R0	-
# TU001	Tuner	QAU0272-001	Main
# TU4001	Tuner	QAU0273-001	Sub
# V01 (1)	CRT	A68QCP893X003	-
# V01 (2)	CRT	A68QCU754X62N	-
# VA901	Varistor	ERZV10V621CS	-
VM	Coil	-	-
X701	Crystal	QAX0717-001Z	8MHz
X4301	Crystal	QAX0521-001Z	27MHz
	PC Board	SGJ-5503A-M2	A/V
	PC Board (1)	SGJ-3502A-M2	CRT
	PC Board (2)	SGJ-3506A-M2	CRT
	PC Board	SGJ-6501A-M2	Front Control
	PC Board	SGJ-7502A-M2	LED & Power Sw
	PC Board (1)	SGJ-1513A-M2	Main
	PC Board (2)	SGJ-1514A-M2	Main
	PC Board	SGJ-4001A-M2	PIP
	Transmitter	RM-C1250G-1H	Remote

For SAFETY use only equivalent replacement part.

- (1) Used in model AV-27FA54/ASA.
(2) Used in model AV-27FA54/AZA.
(3) Screen and focus controls are part of T502.
(4) Bonded part of CRT.

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.