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.

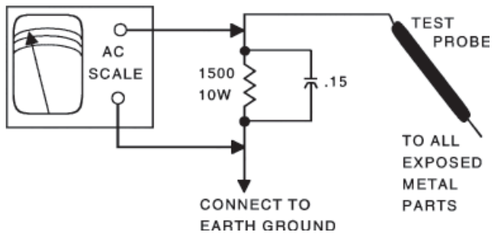
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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.



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SET 5449

MODEL KV-29VL40 (CHASSIS SCC-S06B-A)

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PHOTOFACT® *Technical Service Data*

SONY

MODEL KV-29VL40 (CHASSIS SCC-S06B-A)

Representative Model

INDEX

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Representative Model

Essential coverage for servicing a television receiver...

- **Schematics**
- **Component locations**
- **Parts list**

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MARCH 2009 SET 5449

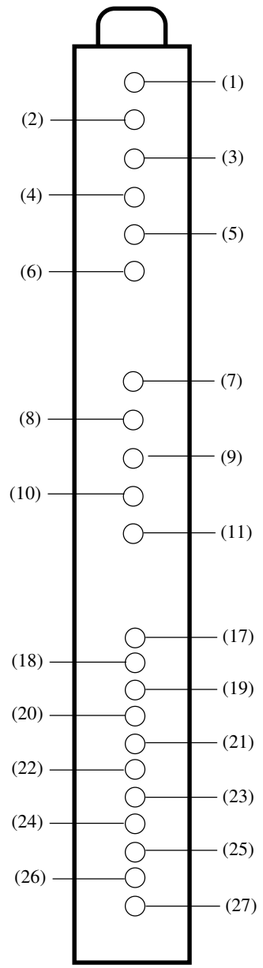
TUNER INFORMATION

MAIN TUNER / VIF / SIF MODULE VOLTAGE CHART

Pin	Pin Name	Voltage
(1)	9V	8.9V
(2)	30V	31.3V
(3)	5V	5.0V
(4)	CLOCK	4.9V
(5)	DATA	4.9V
(6)	ENABLE	0V
(7)	RF AGC	4.0V
(8)	IF OUT	1.6V
(9)	9V	9.0V
(10)	AFT OUT	4.3V
(11)	NC	0V
(17)	DET OUT 2	4.6V
(18)	DET OUT 1	4.3V
(19)	ST LED	5.0V
(20)	SAP LED	0V
(21)	MODE	4.9V
(22)	F MONO	.3V
(23)	MUTE	5.0V
(24)	MUTE	0V
(25)	S OUT	0V
(26)	RIGHT OUT	4.5V
(27)	LEFT OUT	4.5V

NOTE: Voltages do not change on different bands.

MAIN TUNER / VIF / SIF MODULE TERMINAL GUIDE



SAFETY RELATED ADJUSTMENTS

R584 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components: IC301, IC521, IC603, D572, D573, D574, C507, C508, C509, C511, C515, C520, C573, C574, C575, DY, L591, L501, R578, R579, R582, R583, R584, R585, R586, and T504.

Hold-down Operation Confirmation

NOTE: Turn power off immediately when hold-down circuit begins to operate (picture blanks out).

1.Turn the power on, receive a white signal, set picture and brightness settings to maximum.

2.Confirm that the voltage at TP503 is more than 105V.

3.Disconnect power and remove solder from pin 11 of T504.

4.Connect a current meter between pin 11 of T504 and the printed circuit where pin 11 would be attached. Turn receiver on and tune in a dot signal. Set picture and brightness settings to minimum. The current meter should read 100µA ± 100µA

5.Confirm that the voltage at TP600 is 135V ± 3.0V.

6.Connect a voltmeter and a variable DC power supply to TP503 thru a 1SS119 diode. Increase the voltage supplied to TP503 gradually until the picture just blanks out.

7.Check DC voltage, it should measure less than 141.3V after picture has blanked out. Remove power to receiver immediately after confirming voltage.

8.Input a white signal. Adjust ABL current to 1750µA ± 100µA with picture and brightness settings to maximum.

9.Repeat steps 6 and 7.

Hold-down Readjustment

If steps 6 or 8 of the Hold-down Operation Confirmation procedure cannot be satisfied, readjustment should be performed by altering the resistance value of R584.

B+ VOLTAGE CONFIRMATION

The following adjustment should always be performed when replacing IC603, IC601, or R699.

1.Supply 130VAC ±2.0V with variable AC transformer.

2.Receive a dot signal.

3.Set picture and brightness settings to minimum position.

4.Set to service adjustment mode.

5.Select PADJ using the 1 and 4 buttons.

6.Press the 6 button to obtain 0 level.

7.Confirm that the voltage at TP600 is less than 138V.

8.If step 7 cannot be satisfied, replace IC603, IC601, or R699, and repeat above steps until results are satisfactory.

9.Using 3 and 6 buttons, adjust for 135V ± 3V.

10. Write into memory by pressing MUTING button, then ENTER button.

SERVICE INFORMATION

SELF DIAGNOSTIC FUNCTION

This receiver contains a self diagnostic function that will display error codes when problems are detected in certain circuits. The standby indicator on the receiver front will flash to indicate an error has been detected. The way the indicator flashes can be used to determine the location of the error. The error code will be a series of flashes that repeat after 3 seconds. Any errors can also be displayed using the on screen function of the self diagnostics. The following list explains the error codes.

Number Flashes	Description of Code	Possible Malfunction
0	Power does not turn on.	Loss of AC supply or F5050 open.
2	HV hold down is activated.	Q502, Q946, Q947, or IC1701 shorted.
4	No vertical deflection.	Failure of IC541 or loss of 13.0V supply to pin 2 of IC541.
5	White balance failure.	Failure of Q306, Q307, Q308 or IC301. Screen control. out of adjustment.

ON SCREEN DISPLAY OF THE SELF DIAGNOSTIC FUNCTION

The on screen display of the self diagnostic function shows a list of the past failures detected. The 2, 4, and 5 rows correspond to the error code flashes described in the above chart. To enter the on screen display, tune in a picture, turn receiver off, and press display, 5, volume (-), and power buttons without allowing time between buttons. The on screen display will be display as shown in drawing below. After errors have been corrected clear the on screen display information by pressing 8 and enter buttons. To exit the on screen display, press the power button

SELF DIAGNOSIS

2:		0
3:	N/A	0
4:		0
5:		0
101:	N/A	0

MISCELLANEOUS ADJUSTMENTS

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness, picture, and screen control to minimum. Connect a high voltage probe to CRT anode. High voltage should measure 27kV to 30kV.

DIGITAL SERVICE ADJUSTMENT PROCEDURES

Enter/Exit Service Adjustment Mode

1.Tune in a picture and turn receiver off.
2.Press the display button, the 5 button, the vol + button, and the power button in sequence. Press each button within a second.
3.Turn receiver off and then back on to exit service adjustment mode.

Making Adjustments

1.Enter Service Adjustment Mode.
2.Select adjustment by pressing the 1 and 4 buttons.
3.Make changes on selected adjustment by pressing the 3 and 6 buttons.
4.To recover the latest values press the 0 button then the enter button.

Saving Adjustments to Memory

1.Adjustments must be saved to memory. To save adjustment, press the mute button and then the enter button.
2.If changing ID-0 thru ID-4 or IC003, press the 8 and enter buttons to initialize changes prior to saving.

Memory Write Confirmation

1.Disconnect AC plug from outlet.
2.Plug receiver in and enter Service Adjustment Mode.
3.Select adjustment and confirm that setting was saved to memory.

IF AGC

Tune in a active channel. Adjust AGC control, located on top of TU101, counter-clockwise until snow appears, and then clockwise until snow just disappears.

HORIZONTAL FREQUENCY (AFC)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select AFC and set to 3 (free run). Connect a frequency counter to the base of Q501. Check for 15735Hz ± 200Hz. Set AFC to level 0.

HORIZONTAL SIZE (HSIZ)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select HSIZ and adjust for slight horizontal overscan. Save adjustment to memory.

HORIZONTAL POSITION (HPOS)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select HPOS and adjust for best horizontal centering. Save adjustment to memory.

PINCUSHION (PAMP, CPIN, VBOW, VANG)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select PAMP and adjust for straight vertical lines at left and right of screen. Select CPIN and adjust for straight vertical lines at top and at bottom of screen. Select VANG and adjust so that vertical lines are perpendicular at corners. Select VBOW and adjust so that vertical lines are parallel at both sides. Save adjustment to memory.

VERTICAL SIZE (VSIZ)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select VSIZ and adjust for slight vertical overscan. Save adjustment to memory.

VERTICAL POSITION (VPOS)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select VPOS and adjust to center picture vertically. Save adjustment to memory.

VERTICAL LINEARITY (VLIN)

Tune in a crosshatch pattern. Enter the Service Adjustment Mode. Select VLIN and adjust for equal vertical spacing of pattern. Save adjustment to memory.

VERTICAL CORRECTION (SCOR)

Enter the Service Adjustment Mode. Select SCOR and adjust for best picture. Save adjustment to memory.

OSD POSITION (DISP)

Tune in a color bar pattern. Enter the service adjustment mode. Select DISP and adjust to center the OSD. Save adjustment to memory.

SUB BRIGHTNESS (SBRT)

Tune in a crosshatch pattern. Set picture to minimum and brightness to reset. Enter the Service Adjustment Mode. Select SBRT and adjust for visible highlights. Save adjustment to memory.

SUB CONTRAST

Connect an oscilloscope to pin 5 of CN301. Tune in a colorbar pattern. Set picture to maximum, color to minimum, and brightness to center. Enter the Service Adjustment Mode. Select RON and set to 1. Select GON and set to 0. Select BON and set to 0. Select RDRV and adjust so that signal portion of the waveform would measure 1.9V ±.1Vp-p. Set brightness to center. Select GON and BON and set each to 1. Select DCOL and set to 1. Save adjustment to memory.

SUB HUE (SHUE) AND SUB COLOR (SCOL)

Tune in a colorbar pattern. Connect an oscilloscope to pin 3 of CN301. Enter the service adjustment mode. Select and adjust SHUE and SCOL so that the levels of the left and right portions of the waveform are balanced, and the level of the center portion is balanced. Save adjustment to memory.

SUB BALANCE (SBAL)

Input a stereo signal. Enter the Service Adjustment Mode. Select SBAL and adjust for the best sound balance. Save adjustment to memory.

COLOR PURITY

The manufacturer advises not to use a degaussing coil to demagnetize the CRT and mounting brackets. Tune in a green raster signal. Loosen the clamp screw and slide yoke backward to obtain a vertical green band. Adjust purity magnets to center the vertical green band. Slide the deflection yoke forward until a uniform green screen is obtained. Tune in a blue and red raster signal and check blue and red purity. Tighten the clamp screw.

COLOR TEMPERATURE (RCUT, GCUT, BCUT, RDRV, GDRV, BDRV)

Tune in a crosshatch pattern. Adjust screen control so the retrace lines just disappear. Enter Service Adjustment Mode. Set picture to minimum. Select SBRT and adjust for minimum. Select RCUT, GCUT, and BCUT and adjust for best white balance. Set picture to maximum. Select RDRV, GDRV, and BDRV and adjust for best white balance. Save adjustment to memory. Perform sub brightness adjustment.

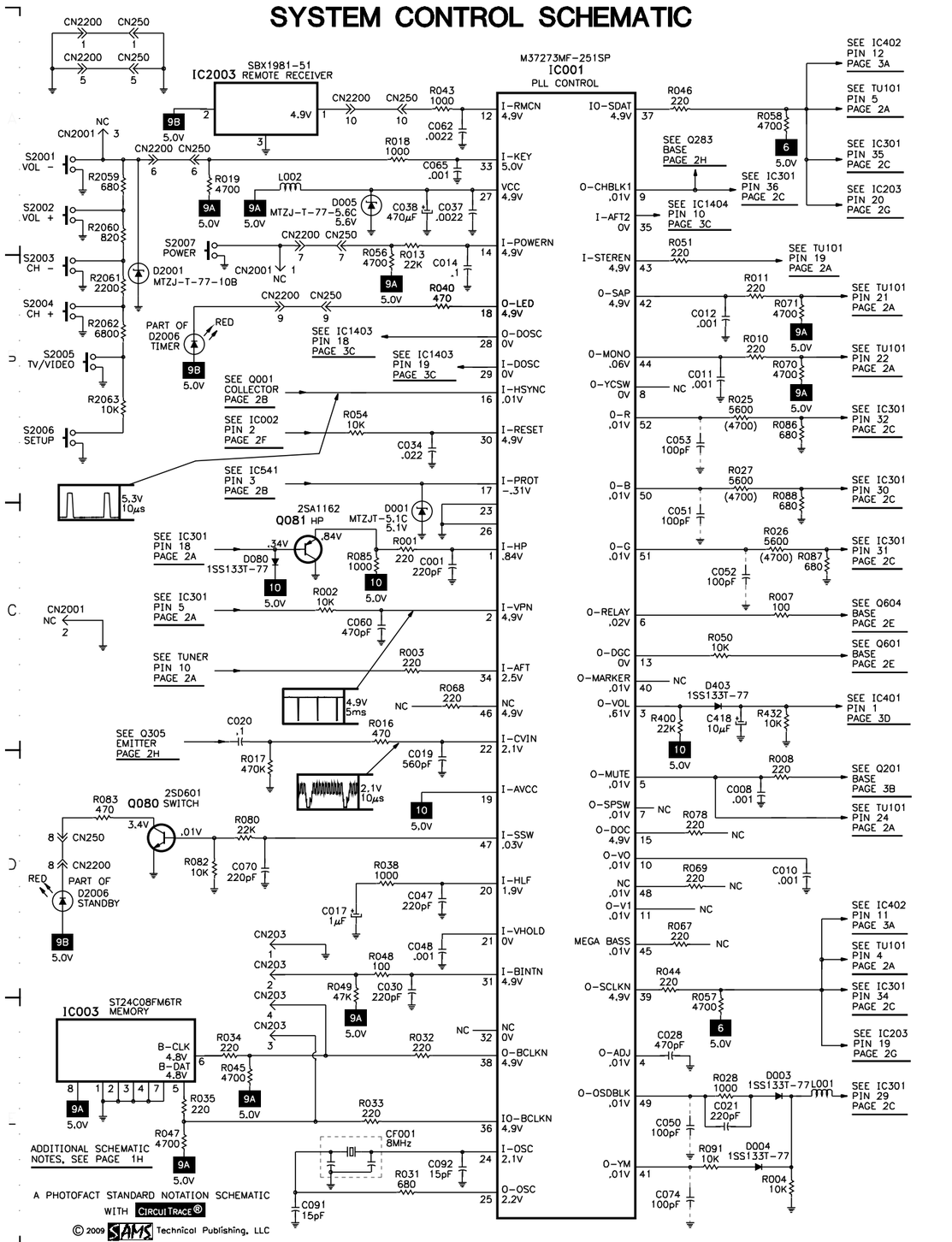
CONVERGENCE

Slide BMC magnets in and out to correct for insufficient horizontal static convergence and rotate the vertical static magnets to correct for insufficient vertical static convergence. Tune in a crosshatch pattern and loosen deflection yoke screw. Remove rubber wedges between deflection yoke and CRT. Tilt deflection yoke up or down to converge the vertical lines at top and bottom of screen and the horizontal lines at the right and left sides of screen. Tilt deflection yoke right or left to converge vertical lines at the right and left sides of screen and horizontal lines at top and bottom of screen. Repeat convergence procedure if necessary to obtain best overall convergence. Apply adhesive to wedges and carefully replace on CRT. Apply a permalloy correction strip, part number 4-062-047-01, corresponding to the misconverged corner areas.

DIGITAL SERVICE ADJUSTMENTS

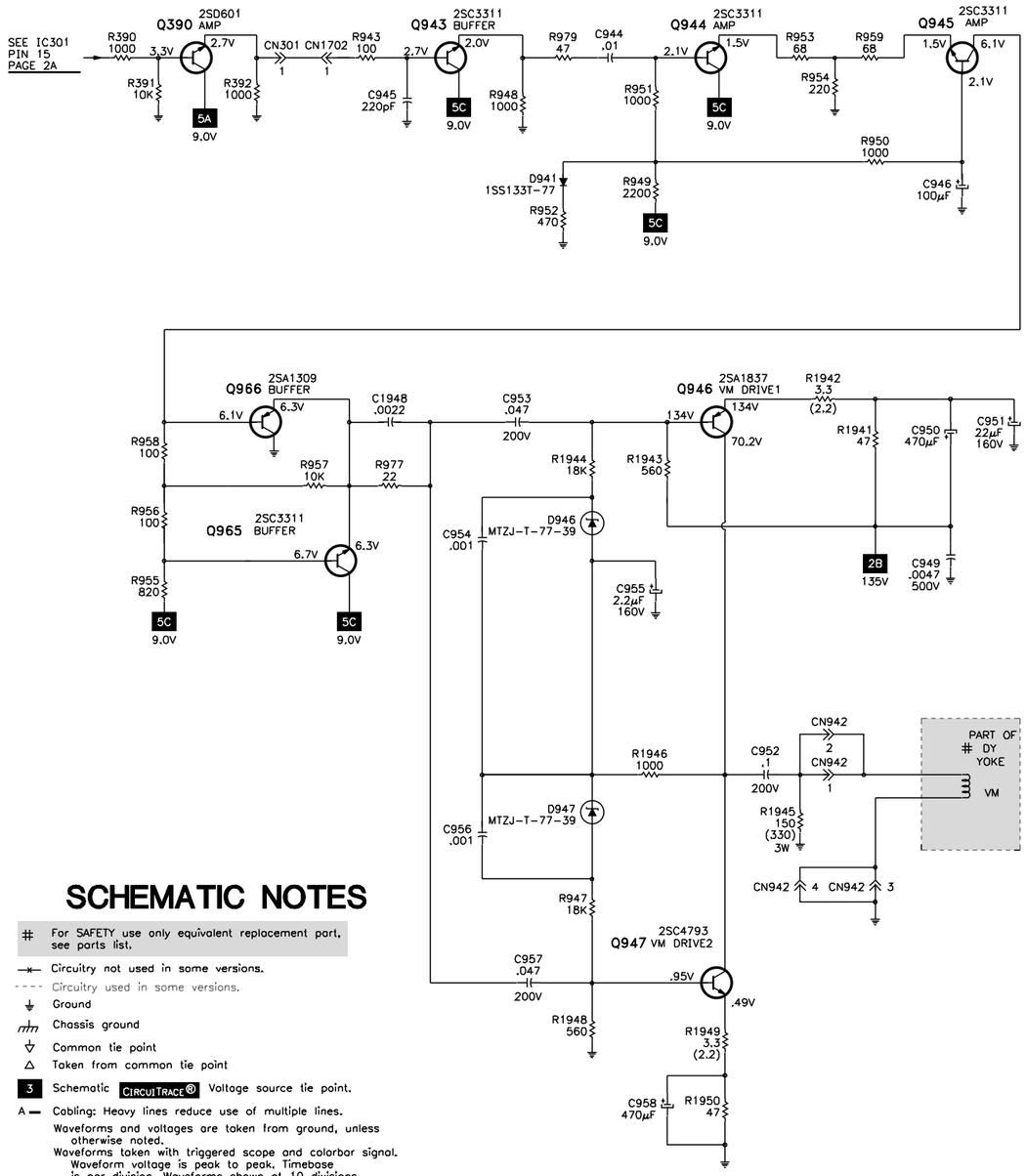
	Display Name	Item Description	Data Range	Initial Value	On-Set No. Value		Display Name	Item Description	Data Range	Initial Value	On-Set No. Value
1	HSIZ	Horizontal Size	0 - 63	45	52	60	AFC	Horizontal Frequency	0 - 3	0	0
2	HPOS	Horizontal Position	0 - 63	10	19	61	FIFR	Field Frequency	0 - 3	3	3
3	VBOW	Vertical L INE Bow	0 - 15	6	5	62	SBAL	Sub Balance	0 - 31	14	14
4	VANG	Vertical L INE Bow Angle	0 - 15	5	7	63	DISP	OSD Position	0 - 127	15	17
5	TRAP	Horizontal Trapezoid	0 - 15	7	6	64	PADJ	Power Adjustment	0 - 63	3	3
6	PAMP	Horizontal Pin Compensation	0 - 63	20	18	65	PSHP	PIP Sub Sharpness	0 - 15	7	7
7	CPIN	Pin Compensation Top/Btm	0 - 63	40	35	66	PPIX	PIP Sub Contrast	0 - 15	7	7
8	VSIZ	Vertical Size	0 - 63	31	42	67	PHUE	PIP Sub Hue	0 - 15	3	3
9	VPOS	Vertical Position	0 - 63	35	28	68	PCOL	PIP Sub Color	0 - 15	5	5
10	VLIN	Vertical Linearity	0 - 15	6	3	69	PTRP	PIP C Trap F0	0 - 15	7	7
11	SCOR	Vertical Correction	0 - 15	8	7	70	PAFC	PIP AFC	0 - 3	1	1
12	VZOM	16:9 CRT Z Mode	0, 1	0	0	71	PYDR	PIP Y Drive	0 - 31	14	14
13	EHT	Vertical Hi-Volt Correction	0 - 15	4	4	72	UPED	U PED	0 - 15	8	8
14	ASP	Aspect Ratio Control	0 - 63	47	47	73	VPED	V PED	0 - 15	8	8
15	SCRL	16:9 CRT Z Mode Tran Scrl	0 - 63	31	31	74	U2PE	U2 PED	0 - 15	5	5
16	HBLK	RGB Out Width Control	0, 1	1	1	75	V2PE	V2 PED	0 - 15	5	5
17	LBLK	Left Screen HBLK Control	0 - 15	15	15	76	Y2DR	Y2 Drive	0 - 31	20	20
18	RBLK	Right Screen HBLK Control	0 - 15	3	3	77	U2DR	U2 Drive	0 - 31	18	18
19	VUSN	V SAW Waveform Compress	0, 1	0	0	78	V2DRV	V2 Drive	0 - 31	9	9
20	HDW	Horizontal Drive Pulse Width	0, 1	0	0	79	PSF0	PIP SHP F0	0, 1	1	1
21	EWDC	EW/DC Adjust	0, 1	0	0	80	PCD2	PIP CD Mode2	0, 1	1	1
22	LVLN	Bottom Vertical Linearity	0 - 15	0	0	81	PDCT	PIP DC Tran	0 - 7	4	4
23	UVLN	Top Vertical Linearity	0 - 15	0	0	82	PP/O	PIP Pre/Over	0 - 3	1	1
24	RDRV	Red Drive	0 - 63	35	35	83	PDLY	PIP Y Delay	0 - 3	0	0
25	GDRV	Green Drive	0 - 63	30	30	84	PBG	PIP BG	0 - 15	5	5
26	BDRV	Blue Drive	0 - 63	30	28	85	PEXT	PIP Ext Color	0, 1	1	0
27	RCUT	Red Cutoff	0 - 15	10	12	86	PHMK	-	0, 1	0	0
28	GCUT	Green Cutoff	0 - 15	7	9	87	ABL0	-	0, 1	0	0
29	BCUT	Blue Cutoff	0 - 15	7	10	88	ABL1	-	0 - 7	1	1
30	DCOL	Dynamic Color	0, 1	0	1	89	PHPO	PIP Horizontal Position	0 - 63	58	52
31	SHUE	Sub Hue	0 - 31	14	9	90	PVPO	PIP Vertical Position	0 - 31	18	18
32	SCOL	Sub Color	0 - 31	14	20	91	PYSD	PIP YS Delay	0 - 15	1	1
33	SBRT	Sub Brightness	0 - 31	11	15	92	PYDL	PIP Y Input Delay	0 - 7	0	0
34	RON	Red Off	0, 1	1	1	93	PHVI	PIP HV Sync	0, 1	0	0
35	GON	Green Off	0, 1	1	1	94	PCLP	PIP Clamp	0 - 3	0	0
36	BON	Blue Off	0, 1	1	1	95	PCLK	PIP Clock	0, 1	1	1
37	AXPL	Axis PAL	0, 1	0	0	96	PIHS	Inset Horizontal Sync	0 - 15	2	2
38	AXNT	Axis NTSC	0, 1	0	0	97	PIVS	Inset Vertical Sync	0 - 63	22	22
39	CBPF	Chroma BPF	0, 1	0	0	98	PMVS	Main Vertical Sync	0 - 63	17	17
40	CTRP	Y Trap Filter	0, 1	1	1	99	PCON	PIP Contrast	0 - 15	10	10
41	COFF	Color	0, 1	0	0	100	PFRY	PIP Frame Y	0 - 15	5	5
42	KOFF	Set Color Killer	0, 1	0	0	101	PFRC	PIP Frame Chroma	0 - 255	0	0
43	SSHP	Sub Sharpness	0 - 15	6	6	102	PFRW	PIP Frame Width	0 - 31	20	20
44	SHPF	Sharpness f0	0, 1	1	1	103	PSEL	PIP Sel	0, 1	1	1
45	PREL	Pre/Overshoot	0, 1	1	1	104	PPLL	PIP PLL	0 - 3	0	0
46	Y-DC	DC Transmission	0, 1	1	1	105	PVPE	PIP V PED	0 - 15	0	0
47	GAMM	Gamma Correction	0 - 3	0	0	106	PUPE	PIP U PED	0 - 15	0	0
48	ABLM	ABL Mode Switching	0, 1	1	1	107	ID-0	Model Id	0 - 255	145	145
49	VTH	ABL C D VTH Switching	0, 1	1	1	108	ID-1	Model Id	0 - 255	19	19
50	YDEL	Y Delay Time Control	0 - 15	7	7	109	ID-2	Model Id	0 - 255	173	173
51	NCOL	No Color ID	0, 1	1	1	110	ID-3	Model Id	0 - 255	194	194
52	FSC	FSC Out	0, 1	1	1	111	ID-4	Model Id	0 - 255	63	63
53	K-ID	Killer ID Control Switch	0, 1	0	0	112	ID-5	Model Id	0 - 255	1	1
54	HOSC	Horizontal VCO Osc. Freq.	0 - 15	7	7	113	ID-6	Model Id	0 - 255	0	0
55	VSS	Vertical Sync Slice Level	0, 1	0	0	114	ID-7	Model Id	0 - 255	64	64
56	HSS	Horizontal Sync Slice Level	0, 1	0	0						
57	HMSK	-	0, 1	1	1						
58	VTMS	Select Signal VTIM Pin	0 - 3	0	0						
59	CDMD	Vertical Countdown	0, 1	0	0						

G
SYSTEM CONTROL SCHEMATIC



A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

H
VELOCITY MODULATOR SCHEMATIC



SCHEMATIC NOTES

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

Circuitry not used in some versions.

Circuitry used in some versions.

Ground

Chassis ground

Common tie point

Taken from common tie point

3 Schematic CIRCUITRACE® Voltage source tie point.

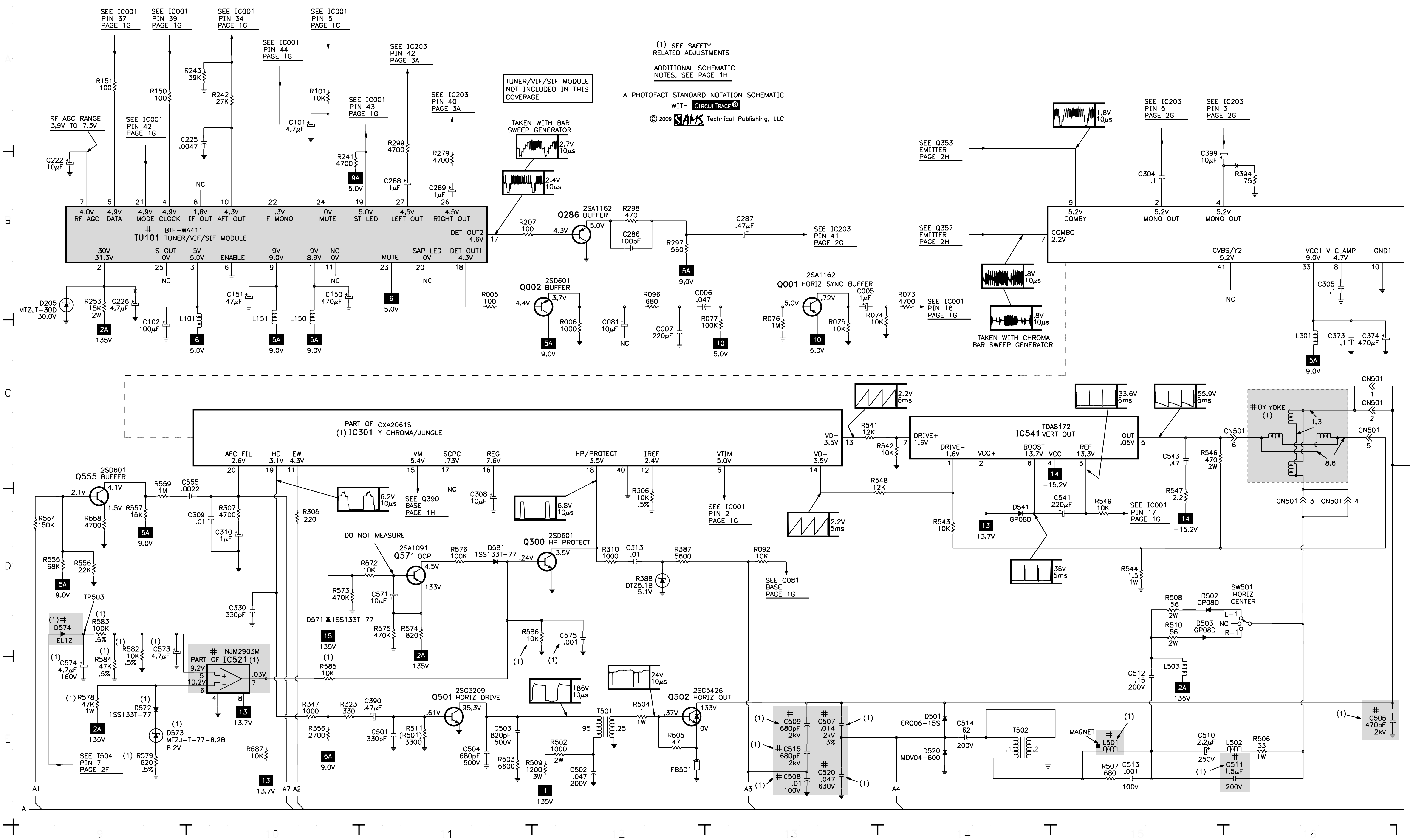
A — Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless otherwise noted.
Waveforms taken with triggered scope and colorbar signal. Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.
Supply voltages maintained as seen at input.
Voltages measured with digital meter and a 1000µV RF signal, with colorbar pattern applied to antenna terminal.
Controls adjusted for normal operation.
Capacitors are 50 volts or less, 5% or greater unless noted.
Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.
Resistors are 1/2W or less, 5% or greater unless noted.
Value in ( ) used in some versions.
Measurements with switching as shown unless noted.
Rated voltage shown on zener diodes.

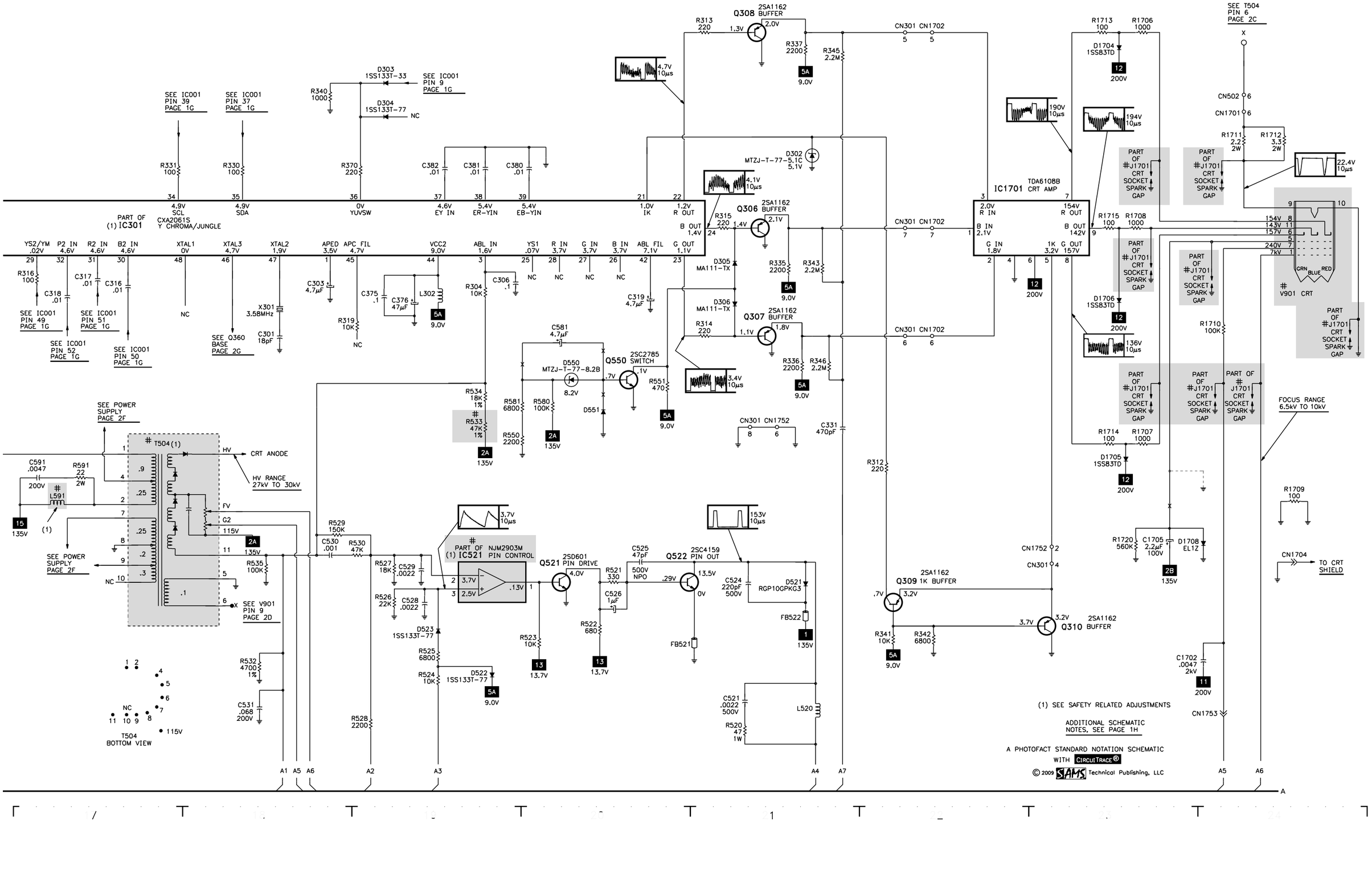
A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

SONY MODEL KV-29VL40 (CHASSIS SCC-S06B-A)

TELEVISION SCHEMATIC



TELEVISION SCHEMATIC continued



POWER SUPPLY SCHEMATIC

E

F

P600 120VAC 940mA POLARIZED
CN5000
F5050 6.3A
VDR5050
R5050 2.2M
C5050 .47 125V
T5050
CN5002 CN601
C601 .47 125V
T601
THP601 3.3 COLD PTC
RY601 DEGAUSS
L600 DEGAUSS
R601 4.7M
R602 10W
RY602 POWER
SEE Q670 COLLECTOR FOR RELAY COIL PAGE 2E
D601 D3SB60F
△ TAKEN FROM COMMON TIE POINT
C614 .022 630V
R618 10 FUSIBLE
VDR602
R606 .47 FUSIBLE
R605 470K
R604 470K
C606 560µF 200V
C607 560µF 200V
D621 D1NL40-TA
D622 D1NL40-TA
T603 BOTTOM VIEW
T602 BOTTOM VIEW
SPARK GAP
CN5003
CN101
Q601 2SC2785 RELAY DRIVE
R630 2200
R631 10K
D602 1SS133T-77
RY601 DEGAUSS
SEE IC001 PIN 13 PAGE 1G
DM-58 IC603 REG
C623 .0047
R623 100K
R624 2200
C624 .0047 200V
R699 470
Q608 2SA1175 SOFT START
C632 10µF
R647 10K
R622 10
R612 1 1W
C610 .47
C615 .22
C612 .0015 500V
D691 1SS133T-77
R692 15
R608 68K 1W
R609 68K 1W
FB601
IC601 MX0541B-F CONV.OUT
FB602
C613 680pF 500V
R613 1 1W
C611 .47
C616 .22
R610 68K 1W
R611 68K 1W
D690 1SS133T-77
R691 15
CN301 CN1702
CN203
CN5001 CN604 CN502 CN1701
D5001 U05G
D5002 U05G
R5001 4.7
C5002 22µF (10µF) 250V
C5000 22µF (10µF) 250V
Q5001 2SK2845 SWITCH
R5003 22M
C5004 .001
R5007 2200
R5013 680
D5004 1SS133T-77
D5005 1SS133T-77
R5008 10K
R5009 47K
C5006 .001
C5007 470pF
R5010 680
Q5002 2SC3311 SWITCH
R5011 6.8
D5006 MTZJ-T-77-6.2C
R5012 1000
C5008 .001
C5009 22µF
D5007 D1N20R-TA
C5020 .0047 125V (250V)
T5001 BOTTOM VIEW
T5001
D5008 D1NL20-TA
C5010 120µF
CN5001 CN604
C5003 .01 630V
R5002 470K 1%
D5003 ERA22-08TP3
SEE IC001 PIN 6 PAGE 1G
Q604 2SC2785 SWITCH
R642 47K
R674 22K
R673 2200
R671 1000
Q670 2SD774 SWITCH
D670 1SS133T-77
R675 22 1W
SEE D601 FOR RELAY SWITCH PAGE 2E
D604 S2L60F
D605 S2L60F
C617 470pF 500V
FB603
C618 470pF 500V
C650 .001
D618 D2S4MF
FB605
D620 D2S4MF
C651 .001
L601
R641 1 3W
IC604 PQ09RF21 9V REG
C527 22µF
C620 1000µF
C1941 470µF
C312 1000µF
C1415 100µF
D615 D10SC4M
TP600
D610 EZ0150AV1
L504
R571 .47 2W
CN502 CN1701
C619 33µF
C576 33µF
Q650 2SD1292 5V REG
R650 680
D650 MTZJ-T-77-5.6C 5.6V
L350
C629 100µF
C653 47µF
C285 100µF
C311 .01
C626 100µF
C654 100µF
C353 .1
C350 .01
C351 10µF
C352 .01
PS201 2A FUSE LINK
C219 .1
C218 470µF
C621 470µF
IC002 MM1319AFBE STBY 5V REG
R690 3.3 1W
C691 470µF
C693 .47
C690 .47µF
SEE IC001 PIN 30 PAGE 1G
CN250 CN2200
C2068 100µF
C039 10µF
C004 47µF
C692 47µF
L003
C046 47µF
R553 47
D552 RGP10GPKG23
R552 220K
C553 22µF 250V
CN502 CN1700
L1701
C1701 10µF 250V
SEE T504 PAGE 2C
PART OF T504
R562 .47
D562 RGP15GPKG23
C564 470µF
C542 47µF
R561 .47
D561 RGP15GPKG23
C562 470µF
SEE IC521 PIN 5 PAGE 2A
120V 10µs
328V 10µs
29.5V 10µs
330V 10µs
30.4V 10µs
28.8V 10µs
28.6V 10µs
350V△ 10µs
11V△ 5ms
310V△
395V△ 5µs
236V 10µs
139V 10µs
154V 10µs

1 135V SOURCE
2A 135V SOURCE
15 135V SOURCE
2B 135V SOURCE
16 12.0V SOURCE
4 12.0V SOURCE
5C 9.0V SOURCE
5A 9.0V SOURCE
5B 9.0V SOURCE
6 5.0V SOURCE
3 5.0V SOURCE
7 13.0V SOURCE
8 7.1V SOURCE
9B 5.0V SOURCE
9A 5.0V SOURCE
10 5.0V SOURCE
11 200V SOURCE
12 200V SOURCE
13 13.7V SOURCE
14 -15.2V SOURCE

(1) SEE SAFETY RELATED ADJUSTMENTS ADDITIONAL SCHEMATIC NOTES, SEE PAGE 1H

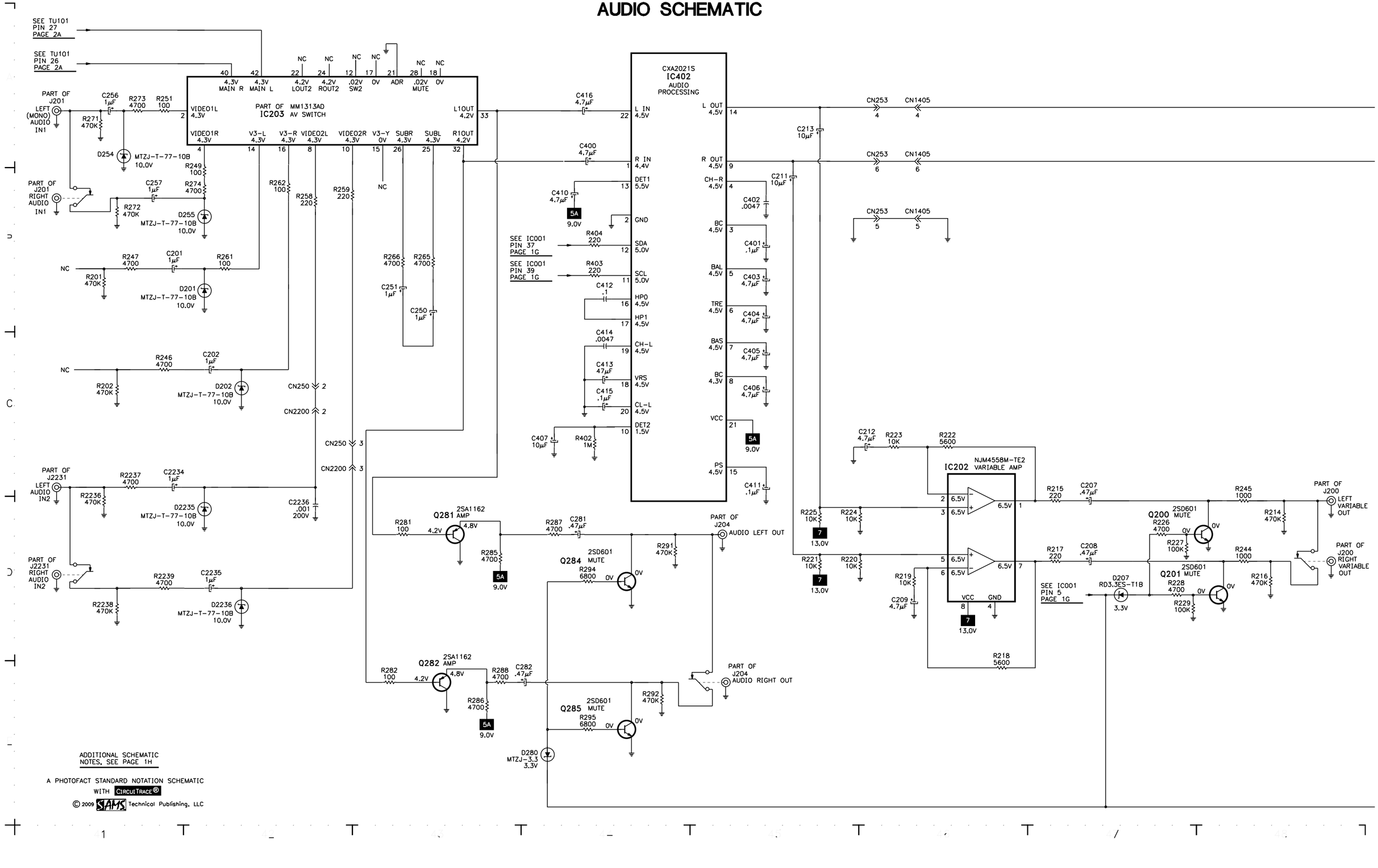
A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

VIDEO SCHEMATIC

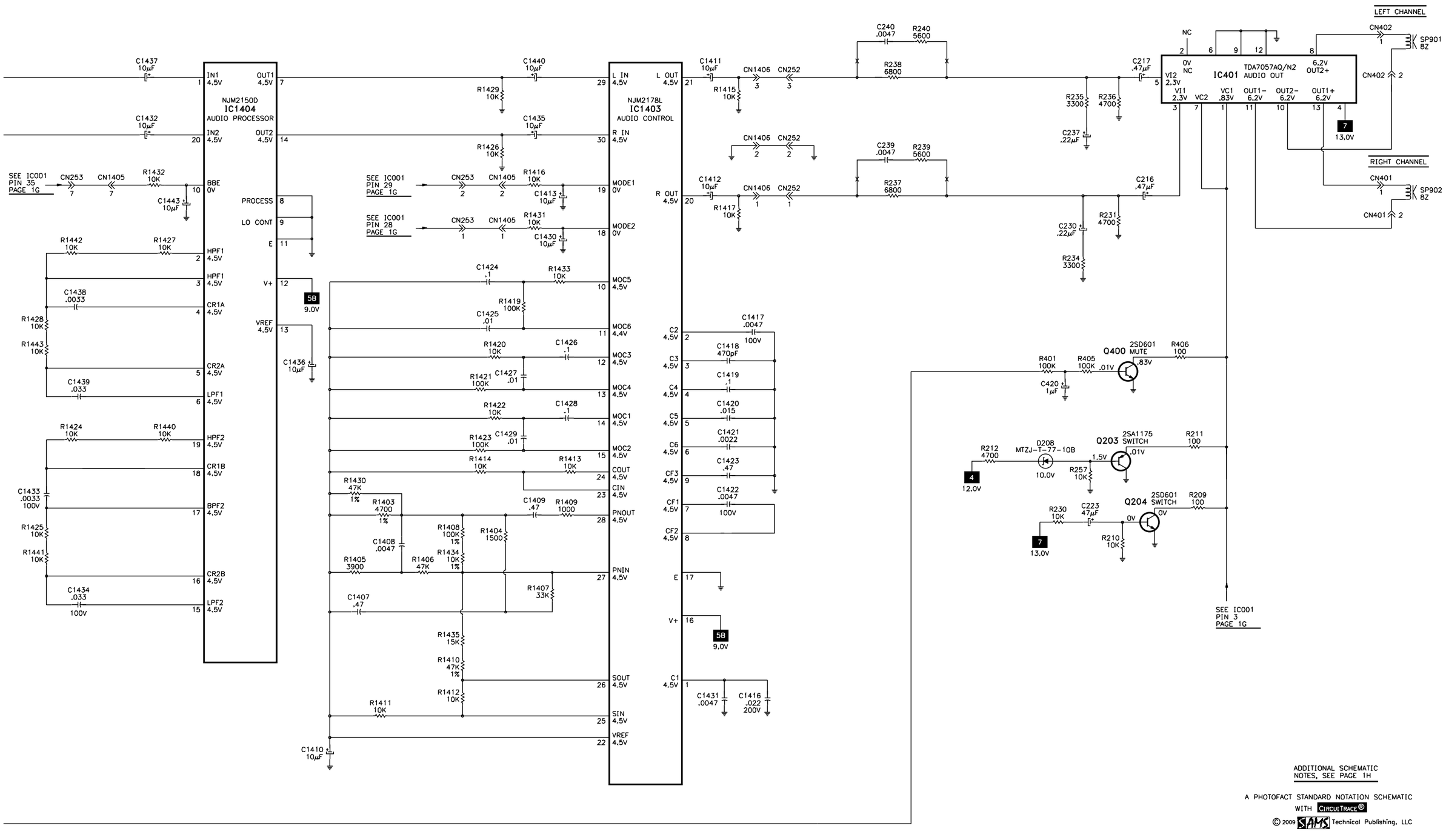
A

B

AUDIO SCHEMATIC



AUDIO SCHEMATIC continued



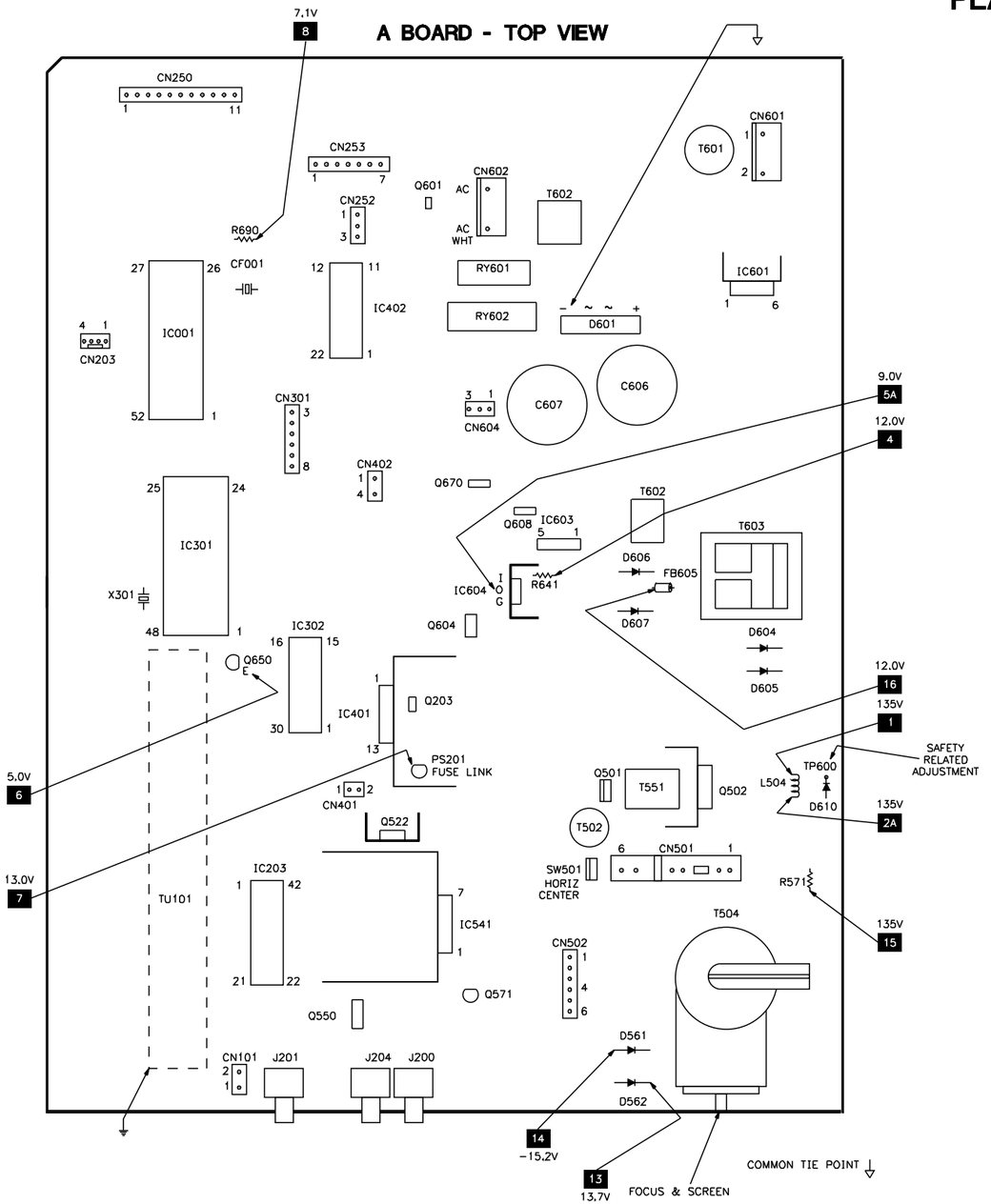
SCHEMATIC COMPONENT LOCATION GUIDE

C001	C2	C222	B9	C355	D35	C525	D20	C950	B8	C5000	D26	D573	E9	IC203	A42	Q002	C11	Q947	D7	R074	C13	R238	A53	R296	C36	R366	D40	R534	C19	R622	B27	R1422	C51	R5008	D27
C004	D32	C223	D54	C356	D34	C526	D20	C951	B8	C5002	C26	D574	D9	IC203	B34	Q080	D1	Q965	C6	R075	C13	R239	B53	R297	B12	R367	E38	R535	D18	R623	B26	R1423	C51	R5009	D27
C005	C13	C225	B10	C357	E35	C527	B32	C952	D7	C5003	C27	D581	D11	IC301	B17	Q081	C2	Q966	B5	R076	C13	R240	A53	R298	B12	R368	D38	R541	C13	R624	C26	R1424	C49	R5010	D26
C006	C12	C226	B9	C358	E35	C528	D19	C953	B6	C5004	D27	D601	A27	IC301	B38	Q200	D47	Q5001	D26	R077	C13	R241	B10	R299	B11	R369	E39	R542	C14	R630	B25	R1425	D49	R5011	D26
C007	C12	C230	B54	C359	E35	C529	D19	C954	C6	C5006	D28	D602	B26	IC301	C11	Q201	D48	Q5002	D26	R078	D3	R242	A10	R304	B19	R370	B19	R543	D14	R631	B25	R1426	B51	R5012	D27
C008	D3	C237	B54	C360	D34	C530	D18	C955	C7	C5007	D26	D604	A30	IC302	D36	Q203	C55	Q571	D11	R080	D1	R243	A10	R305	D10	R372	E39	R544	D15	R641	B30	R1427	B49	R5013	D27
C010	D4	C239	B53	C361	D35	C531	E18	C956	D6	C5008	D27	D605	A30	IC401	A55	Q204	D55	R001	C2	R082	D1	R244	D48	R306	D12	R373	E39	R546	C15	R642	E27	R1428	C49	R5050	A25
C011	B3	C240	A53	C362	B40	C541	D14	C957	D6	C5009	D27	D610	A31	IC402	A44	Q280	C37	R002	C2	R083	D1	R245	D48	R307	D10	R374	E39	R547	D15	R647	C26	R1429	A51	RY601	A27
C012	B3	C250	B43	C373	C16	C542	E32	C958	E7	C5010	C28	D615	C30	IC521	D19	Q281	D43	R003	C2	R085	C2	R246	C41	R308	E33	R375	E40	R548	D13	R650	C31	R1430	D50	RY601	B26
C014	B2	C251	B43	C374	C16	C543	C15	C1407	D50	C5020	E27	D618	A30	IC521	E10	Q282	E43	R004	E3	R086	B4	R247	B41	R310	D12	R376	B40	R549	D15	R670	E27	R1431	B51	RY602	A27
C017	D2	C255	B35	C375	B19	C553	E30	C1408	D51	C5050	A26	D620	B30	IC541	C14	Q283	C37	R005	C11	R087	C4	R248	B36	R312	C22	R377	B39	R550	C20	R671	E28	R1432	B49	RY602	E28
C019	D2	C256	A41	C376	C19	C555	D9	C1409	D51	CF001	E2	D621	A28	IC601	B29	Q284	D44	R006	C12	R088	C4	R249	B42	R313	A21	R378	B39	R551	C20	R673	E27	R1433	B52	S2001	A1
C020	D1	C257	B41	C377	B37	C562	E32	C1410	E50	D001	C2	D622	B28	IC603	B26	Q285	E44	R007	C3	R091	E3	R250	B33	R314	C21	R379	E38	R552	E30	R674	E27	R1434	D51	S2002	A1
C021	E3	C258	A33	C380	B20	C564	E32	C1411	A52	D003	E3	D650	C31	IC604	B31	Q286	B12	R008	D3	R092	D13	R251	A41	R315	B21	R380	D34	R553	D30	R675	E28	R1435	D51	S2003	B1
C028	E3	C259	B35	C381	B19	C571	D11	C1412	B52	D004	E3	D670	E28	IC1403	A52	Q287	B37	R010	B3	R096	C12	R252	B35	R316	B17	R381	E34	R554	D9	R690	D30	R1440	C49	S2004	B1
C030	D2	C280	C37	C382	B19	C573	D9	C1413	B52	D005	A2	D690	C29	IC1404	A50	Q288	B37	R011	B3	R101	A10	R253	C9	R317	D37	R387	D12	R555	D9	R691	C29	R1441	D49	S2005	B1
C034	B2	C281	D44	C390	E11	C574	E9	C1415	B32	D080	C1	D691	B28	IC1701	B22	Q300	D11	R013	B2	R150	A9	R254	B35	R318	D40	R388	D12	R556	D9	R692	B28	R1442	B49	S2006	B1
C037	A2	C282	E43	C399	B15	C575	D12	C1416	E53	D201	B42	D941	B6	IC2003	A1	Q302	B38	R016	D2	R151	A9	R256	B34	R319	C19	R390	A5	R557	D9	R699	C26	R1443	C49	S2007	B1
C038	A2	C284	B36	C400	B44	C576	A32	C1417	C53	D202	C42	D946	C7	J200	D48	Q305	A39	R017	D1	R200	A33	R257	C54	R320	E37	R391	A5	R558	D9	R943	A6	R1706	A23	SP901	A56
C039	D32	C285	B32	C401	B45	C581	C20	C1418	C52	D204	A33	D947	D7	J200	D48	Q306	B21	R018	A2	R201	B41	R258	B42	R321	E38	R392	A5	R559	D9	R947	D7	R1707	C23	SP902	B56
C046	D32	C286	B12	C402	B45	C591	D17	C1419	C52	D205	C9	D1704	A23	J201	A33	Q307	C21	R019	A1	R202	C41	R259	B42	R322	E40	R394	B16	R561	E31	R948	A6	R1708	B23	SW501	D16
C047	D2	C287	B13	C403	B45	C601	A26	C1420	C52	D207	D47	D1705	C23	J201	A41	Q308	A21	R025	B3	R203	B36	R260	A34	R323	E10	R400	C3	R562	E31	R949	B7	R1709	D24	T501	E12
C048	D2	C288	B11	C404	B45	C606	A28	C1421	C52	D208	C54	D1706	C23	J201	B41	Q309	D22	R026	C3	R204	B37	R261	B42	R324	A39	R401	C54	R571	A32	R950	B7	R1710	C24	T502	E14
C050	E3	C289	B11	C405	C45	C607	B28	C1422	D52	D250	C34	D1708	D24	J204	C38	Q310	D23	R027	C3	R205	B37	R262	B42	R328	B38	R402	C44	R572	D10	R951	A7	R1711	B24	T504	C17
C051	C3	C290	B34	C406	C45	C610	B28	C1423	C52	D251	C35	D2001	B1	J204	D45	Q350	D37	R028	E3	R207	B11	R263	A34	R329	A39	R403	B44	R573	D10	R952	B6	R1712	B24	T504	E29
C052	C3	C301	C18	C407	C44	C611	C28	C1424	B51	D252	C36	D2006	B1	J204	E45	Q351	D38	R031	E2	R209	D55	R264	B34	R330	B18	R404	B44	R574	D11	R953	A7	R1713	A23	T601	A26
C053	B3	C303	B18	C410	B44	C612	B28	C1425	C51	D253	B33	D2006	D1	J2231	C33	Q352	D39	R032	E2	R210	D55	R265	B43	R331	B17	R405	C54	R575	D11	R954	A7	R1714	C23	T602	B27
C060	C2	C304	B15	C411	C45	C613	C27	C1426	C52	D254	B41	D2235	D42	J2231	D41	Q353	D39	R033	E2	R211	C55	R266	B43	R333	B39	R406	C55	R576	D11	R955	C5	R1715	B23	T603	A29
C062	A2	C305	B16	C412	B44	C614	A29	C1427	C51	D255	B42	D2236	D42	J2231	D41	Q354	E37	R034	E1	R212	C54	R267	C35	R334	B39	R432	C3	R578	E9	R956	C5	R1720	D23	T5001	C28
C065	A2	C306	B19	C413	C44	C615	B27	C1428	C52	D280	E44	D5001	C25	L001	E4	Q355	E38	R035	E1	R213	B37	R268	C35	R335	B21	R502	E12	R579	E9	R957	C6	R1941	B7	T5050	A26
C070	D1	C307	D40	C414	C44	C616	C27	C1429	C51	D281	C37	D5002	C25	L002	A2	Q356	E39	R038	D2	R214	D48	R269	C36	R336	C21	R503	E11	R580	C20	R958	B5	R1942	B7	THP601	A27
C074	E3	C308	D11	C415	C44	C617	A30	C1430	B52	D302	B21	D5003	D27	L003	D31	Q357	E39	R040	B2	R215	D47	R270	A33	R337	A21	R504	E12	R581	C20	R959	A7	R1943	C7	TU101	B9
C081	C12	C309	D10	C416	A44	C618	A30	C1431	E52	D303	A19	D5004	D27	L101	C10	Q358	B40	R040	B2	R216	D48	R271	A41	R340	A18	R505	E12	R582	E9	R977	C6	R1944	C7	V901	B24
C091	E2	C310	D10	C418	C3	C619	A32	C1432	B49	D304	A19	D5005	D28	L150	C10	Q359	B39	R043	A2	R217	D47	R272	B41	R341	E22	R506	E16	R583	D9	R979	A6	R1945	D7	VDR5050	A25
C092	E2	C311	B32	C420	C54	C620	B32	C1433	D49	D305	B21	D5006	D27	L151	C10	Q360	E34	R044	E3	R218	E46	R273	A41	R342	E22	R507	E15	R584	E9	R1403	D51	R1946	D7	VDR602	A29
C101	A10	C312	B32	C501	E11	C621	C32	C1434	D49	D306	C21	D5007	D27	L301	C16	Q390	A5	R045	E1	R219	D46	R274	B42	R343	B21	R508	D15	R585	E10	R1404	D51	R1948	D7	X301	C18
C102	C9	C313	D12	C502	E12	C623	B26	C1435	B51	D403	C3	D5008	C28	L302	B19	Q400	C55	R046	A3	R220	D45	R279	B11	R345	A21	R509	E12	R586	D12	R1405	D50	R1949	D7		
C150	B10	C314	E38	C503	E11	C624	C26	C1436	C50	D501	E14	DY	C16	L350	C31	Q501	E11	R047	E1	R221	D45	R280	B36	R346	C21	R510	D15	R587	E10	R1406	D51	R1950	E7		
C151	B10	C316	B17	C504	E11	C626	C32	C1437	A49	D502	D15	DY	D8	L351	E36	Q502	E12	R048	D2	R222	C46	R281	D43	R347	E10	R511	E11	R591	D17	R1407	D52	R2059	A1		
C200	A33	C317	B17	C505	E16	C629	B31	C1438	C49	D503	D15	F5050	A25	L501	E15	Q521	D20	R049	E2	R223	C46	R282	E43	R350	E37	R520	E21	R601	B27	R1408	D51	R2060	B1		
C201	B41	C318	B17	C507	E13	C632	C26	C1439	C49	D520	E14	FB350	C33	L502	E15	Q522	D20	R050	C3	R224	D45	R284	C37	R351	D37	R521	D20	R602	A27	R1409	D52	R2061	B1		
C202	C42	C319	C20	C508	E13	C650	A30	C1440	A51	D521	D21	FB501	E12	L503	E15	Q550	C20	R051	B3	R225	D45	R285	D43	R352	D34	R522	D20	R603	B27	R1410	E51	R2062	B1		
C207	D47	C323	B39	C509	E13	C651	B30	C1443	B49	D522	E19	FB521	E21	L504	A31	Q555	D9	R054	B2	R226	D47	R286	E43	R354	D35	R523	E20	R604	B28	R1411	E51	R2063	B1		
C208	D47	C324	D38	C510	E15	C653	B32	C1701	E32	D523	D19	FB522	D21	L520	E21	Q601	B25	R056	B2	R227	D47	R287	D44	R356	E10	R524	E19	R605	A28	R1412	E51	R2235	C33		
C209	D46	C330	D10	C511	E15	C654	C32	C1702	E24	D541	D14	FB601	B29	L591	D17	Q604	E27	R057	E3	R228	D47	R288	E43	R357	D35	R525	E19	R606	A28	R1413	C52	R2236	D41		
C211	B45	C331	C21	C512	E15	C690	D30	C1705	D23	D550	C20	FB602	C29	L600	B27	Q608	C26	R058	A3	R229	D47	R289	C37	R358	D35	R526	D19	R608	B28	R1414	C51	R2237	D41		
C212	C45	C332	D37	C513	E15	C691	D30	C1941	B32	D551	C20	FB603	A30	L601	A30	Q650	C31	R067	D3	R230	D54	R290	C37	R359	D38	R527	D19	R609	B28	R1415	A53	R2238	D41		
C213	A45	C350	C32	C514	E14	C692	D32	C1948	B6	D552	D30	FB605	A30	L601	B30	Q670	E28	R068	C2	R231	B55	R291	D44	R361	D38	R528	E19	R610	C29	R1416	B51	R2239	D41		
C216	B55	C351	C32	C515	E13	C693	D30	C2068	D32	D561	E31	IC001	A3	L1701	D31	Q943	A6	R069	D3	R234	B54	R292	E44	R362	D39	R529	D18	R611	C29	R1417	B53	R5001	C27		
C217	A55	C352	C32	C520	E13	C944	A7	C2234	D41	D562	E31	IC002	D30	P600	A25	Q944	A7	R070	B4	R235	A54	R293	C37	R363	D39	R530	D19	R612	B28	R1419	C51	R5002	C27		
C218	C31	C353	C31	C521	E21	C945	A6	C2235	D42	D571	D10	IC003	E1	PS201	C32	Q945	A8	R071	B4	R236	A55	R294	D44	R364	D39	R532	E18	R613	C28	R1420	C51	R5003	D27		
C219	C31	C354	D33	C524	D21	C946	B8	C2236	D42	D572	E9	IC202	C46	Q001	C13	Q946	B7	R073	C14	R237	B53	R295	E44	R365	D39	R533	C19	R618	A29	R1421	C51	R5007	D27		

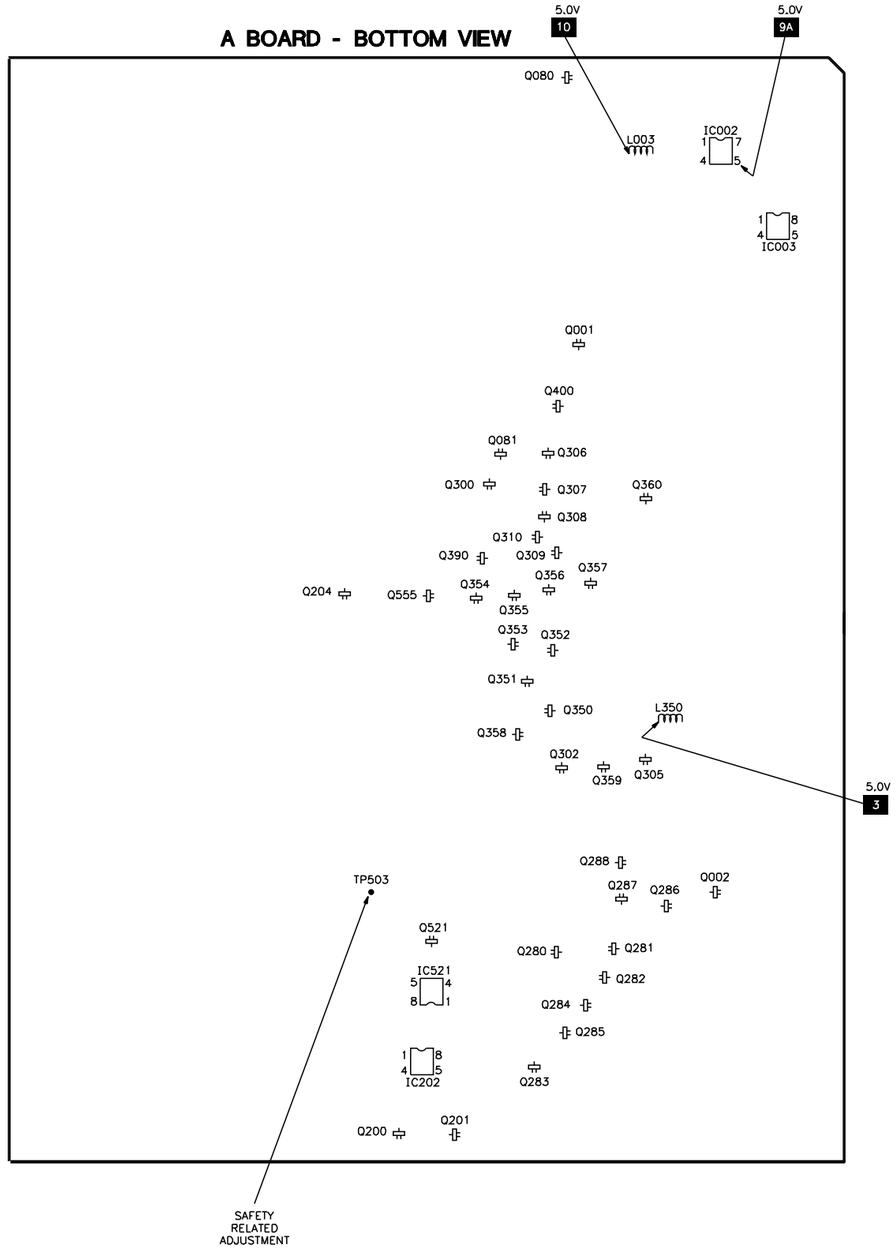
SET 5449 Page 3

PLACEMENT CHART

A BOARD - TOP VIEW

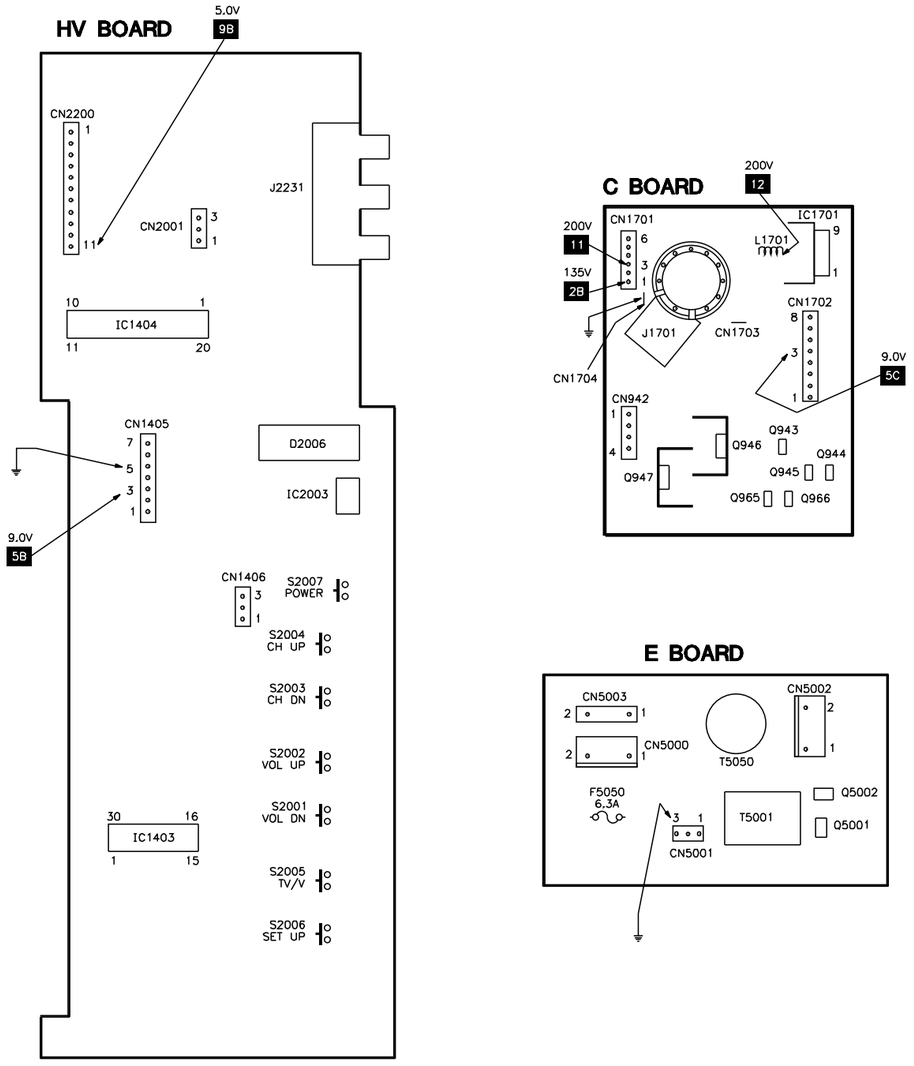


A BOARD - BOTTOM VIEW



SONY MODEL KV-29VL40 (CHASSIS SCC-S06B-A)

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

PARTS LIST

Item No.	Type No.	Mfr. Part No.	Notes
D001	MTZJT-5.1C	8-719-921-44	-
D003	1SS133T-77	8-719-991-33	-
D004	1SS133T-77	8-719-991-33	-
D005	RD5.6ESB2	8-719-109-89	-
D080	1SS133T-77	8-719-991-33	-
D201	RD10ESB2	8-719-110-17	-
D202	RD10ESB2	8-719-110-17	-
D204	RD10ESB2	8-719-110-17	-
D205	MTZJ-30D	8-719-982-22	-
D207	RD3.3ESB2	8-719-109-66	-
D208	MTZJ-T-77-2.2A	8-719-982-96	-
	RD10ESB2	8-719-110-17	-
D250	RD9.1EW	8-719-108-12	-
D251	RD9.1EW	8-719-108-12	-
D252	RD10ESB2	8-719-110-17	-
D253	RD10ESB2	8-719-110-17	-
D254	RD10ESB2	8-719-110-17	-
D255	RD10ESB2	8-719-110-17	-
D280	MTZJ-3.3	8-719-981-99	-
D281	MTZJ-3.3	8-719-981-99	-
D302	MTZJ-5.1C	8-719-921-44	-
D303	1SS133 T-77	8-719-991-33	-
D304	1SS133 T-77	8-719-991-33	-
D305	MA111	8-719-404-49	
D306	MA111	8-719-404-49	-
D403	1SS133T-77	8-719-991-33	-
D501	ERC06-15S	8-719-945-80	-
D502	GP08D	8-717-908-03	-
D503	GP08D	8-717-908-03	-
D520	MDV04-600	8-719-067-63	-
D521	EL1Z	8-719-302-43	-
D522	1SS133T-77	8-719-991-33	-
D523	1SS133T-77	8-719-991-33	-
D541	GP08D	8-719-908-03	-
D550	RD8.2ESB2	8-719-110-08	-
D552	EL1Z	8-719-302-43	-
D561	EGP20G	8-719-979-85	-
D562	EGP20G	8-719-979-85	-
D571	1SS133T-77	8-719-991-33	-
D572	1SS133T-77	8-719-991-33	-
D573	RD8.2ESB2	8-719-110-08	-
# **D574**	EL1Z	8-719-302-43	-
D581	1SS133T-77	8-719-991-33	-
D601	D3SB60F	8-719-510-51	-
D602	1SS133T-77	8-719-991-33	-
D604	S2L60F	8-719-060-90	-
D605	S2L60F	8-719-060-90	-
# **D610**	EZ0150AV1	8-719-057-52	-
D615	D10SC4M	8-719-510-12	-
D618	D2S4MF	8-719-022-97	-
D620	D2S4MF	8-719-022-97	-
D621	D1NL40-TA2	8-719-052-90	-
D622	D1NL40-TA2	8-719-052-90	-
D650	RD5.6ESB2	8-719-109-89	-
D670	1SS133T-77	8-719-991-33	-
D690	1SS133T-77	8-719-991-33	-
D691	1SS133T-77	8-719-991-33	-
D941	1SS133T-77	8-719-991-33	-
D946	RD39ESB2	8-719-110-88	-
D947	RD39ESB2	8-719-110-88	-
D1704	1SS83TD	-	-
D1705	1SS83TD	-	-
D1706	1SS83TD	-	-
	1SS83	8-719-901-83	-
D1708	EL1Z	8-719-302-43	-
D2001	RD10ESB2	8-719-110-17	-
D2235	MTZJ-T-77-10B	-	-
D2236	MTZJ-T-77-10B	-	-
	RD10ESB2	8-719-110-17	-
D5001	U05G	8-719-911-55	-
D5002	U05G	8-719-911-55	-
	ERC04-06S	-	-
D5003	ERA22-08TP3	8-719-055-18	-
D5004	1SS133T-77	8-719-991-33	-
D5005	1SS133T-77	8-719-991-33	-
D5006	RD6.2ESB2	8-719-109-93	-
D5007	D1N20R-TA	-	-
	D1N20R	8-719-510-48	-
D5008	D1NL20	-	-
	D1NL20-TA	8-719-510-26	-
IC001	M37273MF-251SP	8-759-496-18	-
IC002	MM1319AFBE	8-759-371-21	-
IC003	ST24C02FM6TR	8-759-353-44	-
IC010	NJM2233BD	8-759-710-85	-
IC202	UPC4558G2	8-759-100-96	-
IC203	MM1313A	-	-
IC203	MM1313AD	8-759-534-81	-
IC301	CXA2061S	8-752-083-09	-
IC302	CXD2073S	8-752-385-80	-
IC401	TDA7057AQ/N2	8-759-490-17	-
IC402	CXA2021S	8-752-072-39	-
# **IC521**	NJM2903M	8-759-700-07	-
IC541	TDA8172	8-759-980-58	-
# **IC601**	MX0541B-F	8-729-039-65	-
IC604	PQ09RF21	8-759-198-03	-
IC1403	NJM2178L	8-759-496-03	-
IC1404	NJM2150D	8-759-496-02	-
IC1701	TDA6108JF	-	-
	TDA6108Q	8-759-535-08	-
Q001	2SA1162-G	8-729-216-22	-
Q002	2SD601A-Q	8-729-422-27	-
Q080	2SD601A-Q	8-729-422-27	-

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	Notes
Q081	2SA1162-G	8-729-216-22	-
Q200	2SD601A-Q	8-729-422-27	-
Q201	2SD601A-Q	8-729-422-27	-
Q203	2SA1309A	-	-
	2SA1175-HFE	8-729-119-76	-
Q204	2SD601A-Q	8-729-422-27	-
Q280	2SA1162-G	8-729-216-22	-
Q281	2SA1162-G	8-729-216-22	-
Q282	2SA1162-G	8-729-216-22	-
Q283	2SD601A-Q	8-729-422-27	-
Q284	2SD601A-Q	8-729-422-27	-
Q285	2SD601A-Q	8-729-422-27	-
Q286	2SA1162-G	8-729-216-22	-
Q287	2SA1162-G	8-729-216-22	-
Q288	2SD601A-Q	8-729-422-27	-
Q300	2SD601A-Q	8-729-422-27	-
Q302	2SD601A-Q	8-729-422-27	-
Q305	2SA1162-G	8-729-216-22	-
Q306	2SA1162-G	8-729-216-22	-
Q307	2SA1162-G	8-729-216-22	-
Q308	2SA1162-G	8-729-216-22	-
Q309	2SA1162-G	8-729-216-22	-
Q310	2SA1162-G	8-729-216-22	-
Q350	2SA1162-G	8-729-216-22	-
Q351	2SD601A-Q	8-729-422-27	-
Q352	2SA1162-G	8-729-216-22	-
Q353	2SA1162-G	8-729-216-22	-
Q354	2SA1162-G	8-729-216-22	-
Q355	2SD601A-Q	8-729-422-27	-
Q356	2SA1162-G	8-729-216-22	-
Q357	2SA1162-G	8-729-216-22	-
Q358	2SD601A-Q	8-729-422-27	-
Q359	2SA1162-G	8-729-216-22	-
Q360	2SA1162-G	8-729-216-22	-
Q390	2SD601A-Q	8-729-422-27	-
Q400	2SD601A-Q	8-729-422-27	-
Q501	2SC3209LK	8-729-140-50	-
Q502	2SC5426-01	8-729-043-43	-
Q521	2SD601A-Q	8-729-422-27	-
Q522	2SC4159-E	8-729-809-29	-
Q550	2SC2785-HFE	8-729-119-78	-
Q555	2SD601A-Q	8-729-422-27	-
Q571	2SA1091-O	8-729-200-17	-
Q601	2SC2785-HFE	8-729-119-78	-
Q604	2SC2785-HFE	8-729-119-78	-
Q608	2SA1175-HFE	8-729-119-76	-
Q650	2SD1312-K	-	-
	2SD1292	8-729-111-55	-
Q670	2SD774-34	8-729-140-96	-
Q943	2SC3311A-QRSTA	-	-
Q944	2SC3311A-QRSTA	-	-

Item No.	Type No.	Mfr. Part No.	Notes
Q945	2SC3311A-QRSTA	-	-
	2SC2785-HFE	8-729-119-78	-
Q946	2SA1837	8-729-017-05	-
Q947	2SC4793	8-729-017-06	-
Q965	2SC3311A-QRSTA	-	-
	2SC2785-HFE	8-729-119-78	-
Q966	2SA1309A-QRSTA	-	-
	2SA1175-HFE	8-729-119-76	-
Q5001	2SK2845-LB102	8-729-044-30	-
Q5002	2SC3311A	-	-
	2SC2785-HFE	8-729-119-78	-
R388	DTZ5.1B	8-719-976-99	-

	Item No.	Function/Rating	Mfr. Part No.	Notes
	C004	47µF 20% 25V NP	1-107-701-11	-
	C285	100µF 20% 16V NP	1-126-235-11	-
#	**C505**	470pF 10% 2kV	1-162-134-11	-
#	**C507**	.014µF 3% 2kV	1-119-969-11	-
#	**C508**	.01µF 10% 200V	1-107-364-11	-
#	**C509**	680pF 10% 2kV	1-162-116-00	-
#	**C511**	1.5µF 5% 200V	1-117-673-11	-
#	**C515**	680pF 10% 2kV	1-162-116-00	-
#	**C520**	.047µF 5% 630V	1-129-722-00	-
#	**C606**	560µF 20% 250V	1-117-942-11	-
#	**C607**	560µF 20% 250V	1-117-942-11	-
#	**C614**	.022µF 5% 630V	1-129-718-00	-
	C1702	.0047µF +80% -20% 2kV	1-162-114-00	-
#	**C5020**	.0047µF 20% 125V	1-113-941-11	-
#	**C5050**	.47µF 20% 125V	1-136-311-51	-
	CF001	Crystal	1-767-487-11	-
	D2006	Unit	8-810-039-11	LED
#	**DY**	Yoke Horiz 1.8mH	8-451-486-11	-
		Vert 23.6mH		-
#	**F5050**	Fuse	1-576-193-11	6.3Amp, 125V, Fast Acting
	FB501	Ferrite Bead	1-410-396-41	-
	FB521	Ferrite Bead	1-410-397-21	-
	FB522	Ferrite Bead	1-410-397-21	-
	FB601	Ferrite Bead	1-410-396-41	-
	FB602	Ferrite Bead	1-410-396-41	-
	FB603	Ferrite Bead	1-412-911-11	-
	FB605	Ferrite Bead	1-412-911-11	-
#	**IC603**	Module	8-749-012-13	Regulator, DM-58
	IC2003	Receiver	8-742-014-11	Remote (SBX1981-51)
	J200	Jack	1-774-750-21	Assembly
	J201	Jack	1-774-751-11	Assembly
	J204	Jack	1-774-749-11	Assembly
#	**J1701**	Socket	1-251-688-11	CRT
	J2231	Jack	1-691-110-11	Assembly
	L001	10µH	1-410-470-11	-
	L002	100µH	1-412-032-11	-
	L003	100µH	1-412-032-11	-

PARTS LIST continued

	Item No.	Function/Rating	Mfr. Part No.	Notes
	L101	10µH	1-412-029-11	-
	L150	100µH	1-412-032-11	-
	L151	10µH	1-412-029-11	-
	L301	47µH	1-412-031-11	-
	L302	10µH	1-412-029-11	-
	L350	10µH	1-412-029-11	-
	L351	10µH	1-412-029-11	-
#	**L501**	Horizontal Linearity	1-411-976-11	-
	L502	2.2µH	1-412-552-11	-
	L503	-	1-406-677-11	-
	L504	47µH	1-412-533-21	-
	L520	8µH	1-409-955-11	-
#	**L591**	18µH	1-412-528-61	-
#	**L600**	Degaussing	1-416-588-21	-
	L601	1 5% 3W	1-216-389-11	-
	L1701	68µH	1-408-613-31	-
#	**P600**	Line Cord	1-751-057-21	AC, Polarized
	PS201	Fuse, IC Link	1-532-984-11	2Amp, 90V
	R306	10K .5% 1/10W	1-208-806-11	-
	R350	220 .5% 1/10W	1-208-766-11	-
	R351	220 .5% 1/10W	1-208-766-11	-
	R352	3300 .5% 1/10W	1-208-794-11	-
	R354	3300 .5% 1/10W	1-208-794-11	-
	R380	2200 .5% 1/10W	1-208-790-11	-
	R509	1200 5% 3W	1-216-481-11	-
	R532	4700 1% 1/4W	1-215-437-00	-
#	**R533**	47K 1% 1/4W	1-215-461-00	-
	R534	18K 1% 1/4W	1-215-451-00	-
#	**R561**	.47 5% 1/4W	1-249-377-11	-
#	**R562**	.47 5% 1/2W	1-260-288-11	-
	R579	620 .5% 1/10W	1-208-777-11	-
	R582	10K .5% 1/10W	1-208-806-11	-
	R583	100K .5% 1/10W	1-208-830-11	-
	R584	47K .5% 1/10W	1-208-822-11	-
#	**R601**	4.7M 5% 1/2W	1-219-513-11	-
#	**R602**	1 5% 10W Wire-wound	1-205-998-11	-
#	**R603**	1 5% 10W Wire-wound	1-205-998-11	-
	R606	.47 10% 1/2W Fusible	1-220-926-11	-
	R618	10 5% 1/4W Fusible	1-212-857-00	-
	R641	1 5% 3W Nonflammable	1-216-389-11	-
	R1403	4700 1% 1/4W	1-215-437-00	-
	R1408	100K 1% 1/4W	1-215-469-00	-
	R1410	47K 1% 1/4W	1-215-461-00	-
	R1430	47K 1% 1/4W	1-215-461-00	-
	R1434	10K 1% 1/4W	1-215-445-00	-
	R1945	330 5% 3W	1-215-914-11	-
	R5002	470K 1% 1/4W	1-215-485-00	-
#	**RY601**	Relay	1-755-018-11	Degaussing
#	**RY602**	Relay	1-755-266-11	Power
	S2001	Switch	1-692-431-21	Volume Down
	S2002	Switch	1-692-431-21	Volume Up
	S2003	Switch	1-692-431-21	Channel Down
	S2004	Switch	1-692-431-21	Channel Up
	S2005	Switch	1-692-431-21	TV/Video
	S2006	Switch	1-692-431-21	Setup
	S2007	Switch	1-692-431-21	Power
	SP1, SP2	Speaker	1-505-404-11	8cm
	SW501	Switch	1-572-707-11	Horizontal Centering
	T501	Horizontal Drive	1-437-210-11	-
	T502	Modulation	1-431-731-11	-
#	**T504**	Horizontal Output	1-453-268-11	-
#	**T602**	PRT	1-429-992-11	-
#	**T603**	PIT	1-431-837-11	-
#	**T5001**	Converter	1-431-852-11	-
#	**T5050**	Line Filter	1-426-717-11	-
	THP601	3.3 Cold PTC	1-809-539-11	-
#	**TU101**	Tuner	8-598-431-00	UHF/VHF, BTF-WA411
#	**V901**	CRT	8-733-873-05	A68LML50X
	VDR602	ERZV10D471	1-809-267-41	-
	VDR5050	ERZV10D271	1-801-074-41	-
	X301	Crystal	1-567-505-11	3.58MHz
		Magnet	1-452-032-00	Disk
		PC Board	A-1298-482-A	A
		PC Board	A-1343-525-A	E
		PC Board	A-1331-838-A	CV
		PC Board	A-1372-479-A	HV
		Transmitter	1-475-801-11	Remote (RM-Y165)
		Wedge	4-053-005-01	Yoke Positioning (3 Used)

 # For SAFETY use only equivalent replacement part.

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.