

## 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.

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

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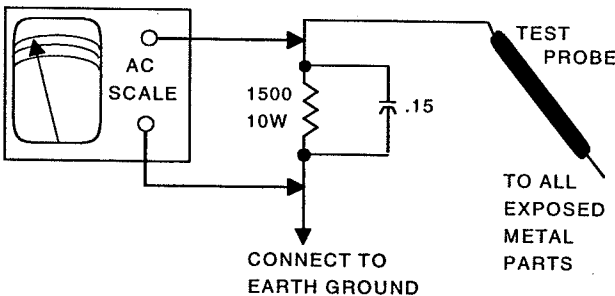
### SAFETY CHECKS — FIRE AND SHOCK HAZARD

#### Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

#### Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15μF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500μA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



UPC  
HERE

03PF02163

# PHOTOFACT<sup>®</sup> Technical Service Data

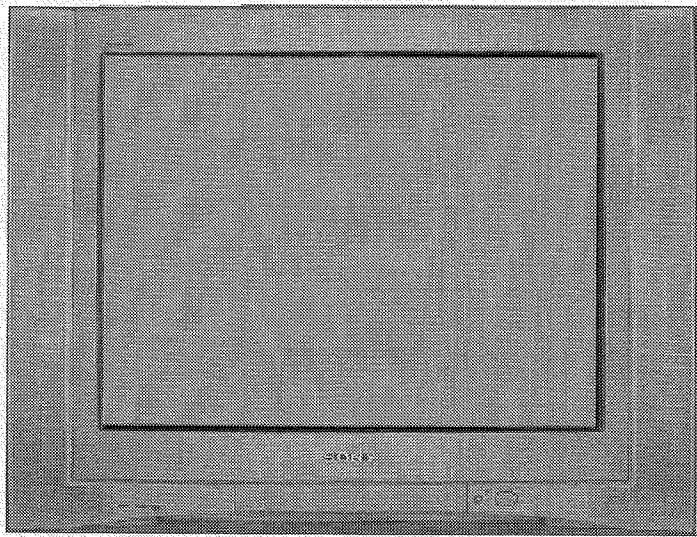
## SILVER

### SONY

#### Model KV-27FS200 (Chassis SCC-S65E-A)

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Representative Model

**Essential coverage  
for servicing a television receiver...**

- Schematics
- Component locations
- Parts list

Coverage includes these additional models and chassis:

Models	Chassis
KV-27FS100	SCC-S64D-A
KV-27FS100	SCC-S65D-A

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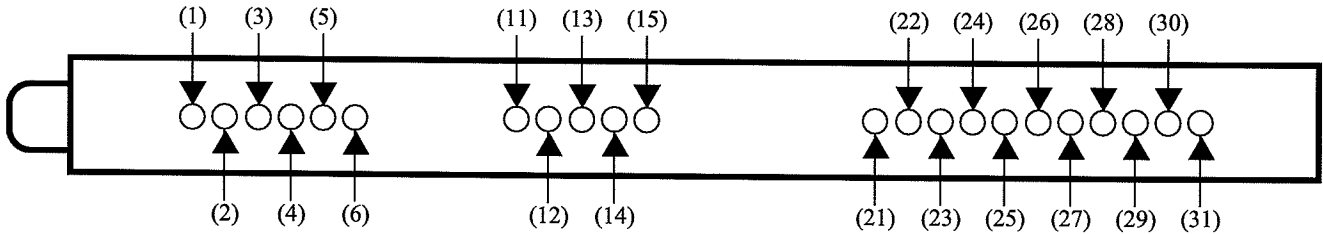
TUNER INFORMATION

TU001 MAIN TUNER VOLTAGE CHART

Pin	Pin Name	Voltage	Pin	Pin Name	Voltage	Pin	Pin Name	Voltage
(1)	VCC 9V	8.8V	(13)	VCC 9V	8.8V	(25)	MODE	0V
(2)	30V	30.0V	(14)	AFT OUT	3.9V	(26)	F MONO	0V
(3)	VCC 5V	4.9V	(15)	GND	0V	(27)	NC	0V
(4)	SCL	4.4V	(21)	DET OUT 2	4.7V	(28)	MUTE	0V
(5)	SDA	4.5V	(22)	DET OUT 1	4.4V	(29)	NC	0V
(6)	AS	0V	(23)	ST IND	4.9V	(30)	R OUT	4.1V
(11)	RF AGC	4.5V	(24)	SAP IND	0V	(31)	L OUT	4.1V
(12)	VIF	2.1V						

NOTE: Voltages do not change on different bands.

TU001 MAIN TUNER TERMINAL GUIDE

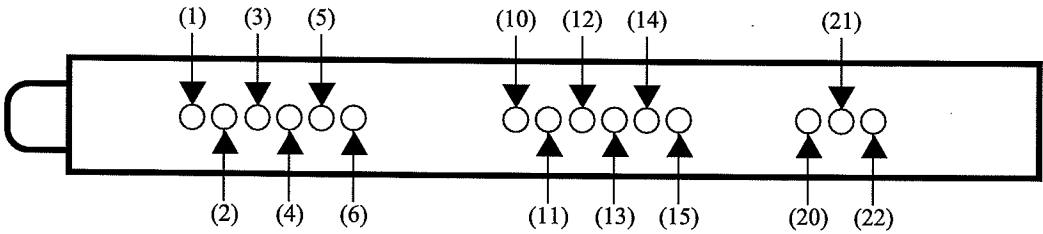


TU150 SUB TUNER VOLTAGE CHART

Pin	Pin Name	Voltage	Pin	Pin Name	Voltage	Pin	Pin Name	Voltage
(1)	VCC 9V	9.0V	(10)	GND	0V	(20)	AUDIO	.9V
(2)	VCC 30V	30.0V	(11)	RF AGC	4.1V	(21)	MUTE	.3V
(3)	5V	5.0V	(12)	VIF	1.6V	(22)	DET OUT	2.8V
(4)	SCL	4.5V	(13)	9V	9.0V			
(5)	SDA	4.5V	(14)	AFT OUT	3.5V			
(6)	AS	5.0V	(15)	GND	0V			

NOTE: Voltages do not change on different bands.

TU150 SUB TUNER TERMINAL GUIDE



MISCELLANEOUS ADJUSTMENTS

B+ CHECK

Connect a digital DC voltmeter to the cathode of D643. Set brightness and picture to minimum. With AC line voltage set to 130VAC, B+ should read 135V ±1.0V.

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 29kV.

DIGITAL ADJUSTMENT PROCEDURES

Enter/Exit Service Adjustment Mode

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

Making Adjustments

Enter Service Adjustment Mode. Select an item adjustment by pressing the 1 and 4 buttons. Select a group device item adjustment by pressing the 2 and 5 buttons. Make changes on selected adjustment by pressing the 3 and 6 buttons. To recover the latest values press the 0 then enter buttons.

Saving Adjustments to Memory

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

Memory Write Confirmation

Disconnect AC plug from outlet. Plug receiver in and enter Service Adjustment Mode. 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, counterclockwise 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, UPIN, LPIN, 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 UPIN and adjust for straight vertical lines at top of screen, and select UPIN and adjust for straight vertical lines 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 3 of IC702. 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 2 of IC702. 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.

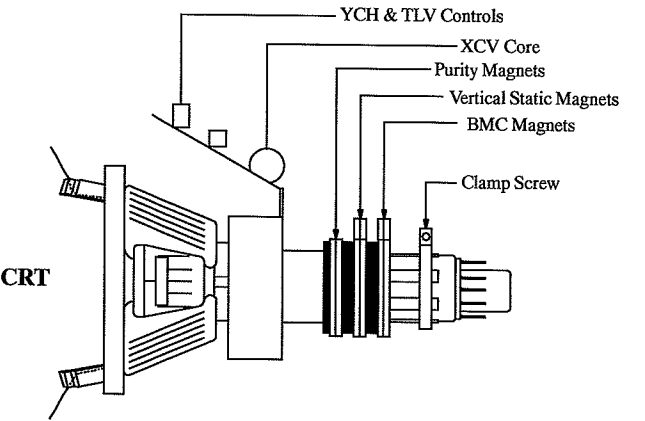
COLOR TEMPERATURE (RCUT, GCUT, BCUT, RDRV, GDRV, BDRV)

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

Adjust V.Stat control to converge red, green, and blue in the center of the screen. 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 adjust TLV control, and converge 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. Adjust XCV core to balance X axis, and adjust YCH control to balance Y axis. 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.

CRT NECK ASSEMBLY



## DIGITAL SERVICE ADJUSTMENT CHART

**NOTES:**

Codes: F = Fixed do not adjust; A = Variable to be adjusted. Before making any changes to the On-Set Value, make a record of the On-Set Values. After making any repair or changes to the On-Set Values, press the 8 and Enter buttons on the remote to save the changes.

NOTES:

Codes: F = Fixed do not adjust; A = Variable to be adjusted. Before making any changes to the On-Set Value, make a record of the On-Set Values. After making any repair or changes to the On-Set Values, press the 8 and Enter buttons on the remote to save the changes.

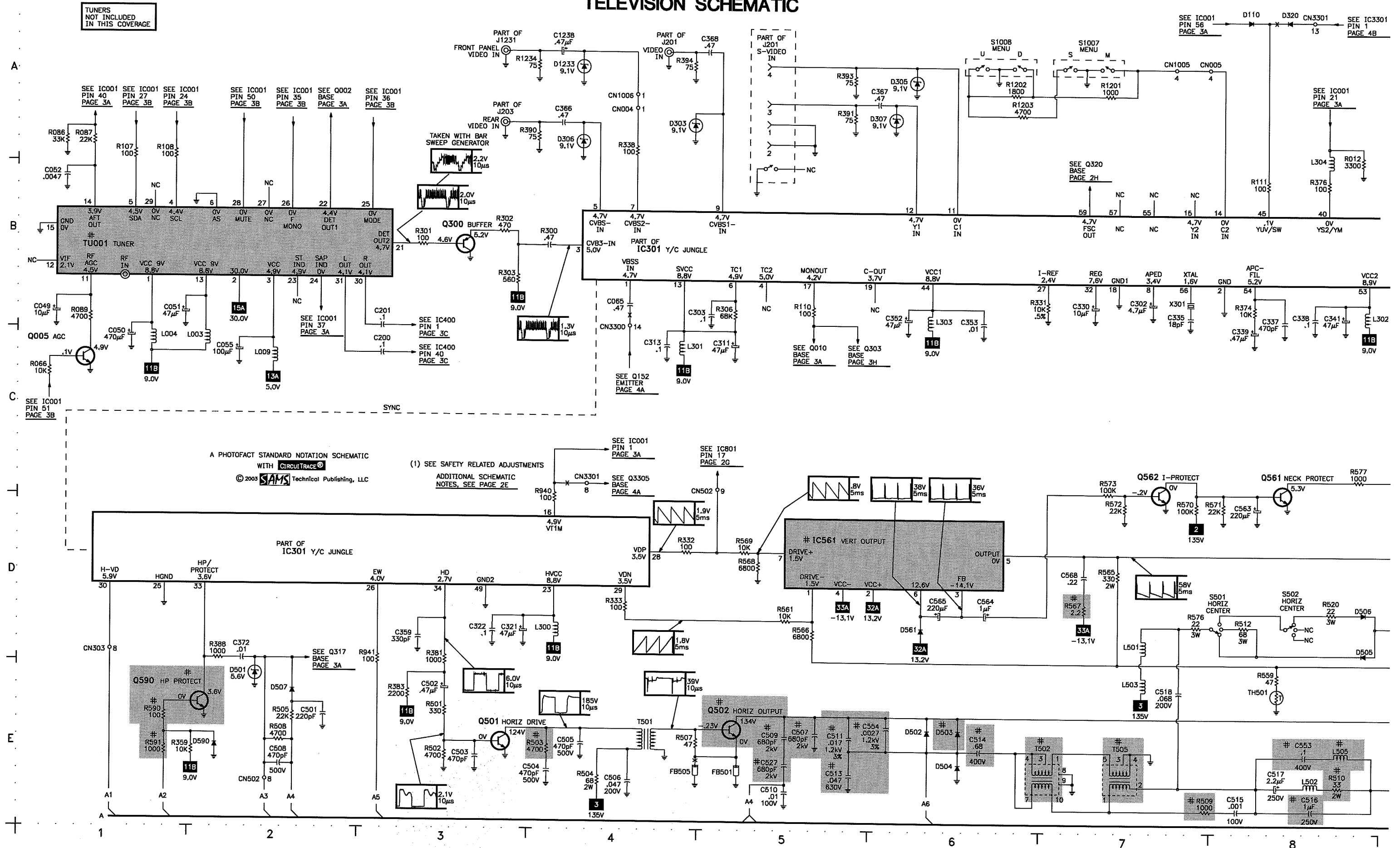
No.	Display	Item	Data Range	Initial Value	On-Set Value	Code	No.	Display	Item	Data Range	Initial Value	On-Set Value	Code	No.	Display	Item	Data Range	Initial Value	On-Set Value	Code	
COL-TMP							3D-COMB continued							AP continued							
0		GDOF					44	SHT	SHT	0 - 3	0	0	F	7	BBSL	Simulated - BBE Low	0 - 15	0	0	F	
1		BDOF					45	VCT	VCT	0, 1	0	0	F	8	BBMH	Surround BBE High	0 - 15	0	0	F	
2		GCOF					46	CGAT	CLKGAT	0, 1	0	0	F	9	BBML	Surround BBE Low	0 - 15	0	0	F	
3		BCOF					47	CG2D	CLK2D	0, 1	1	1	F	10	BBGH	WOW - BBE High	0 - 15	5	5	F	
4		DCOL					48	CGGT	CLKGGT	0, 1	0	0	F	11	BBGL	WOW - BBE Low	0 - 15	9	9	F	
IC-IMP							49	CGEB	CLKGEBF	0, 1	0	0	F	12	BBTH	True surround BBE High	0 - 15	7	7	F	
0		BLAD					50	CGT	CLKGT	0, 1	0	0	F	13	BBTL	True surround BBE Low	0 - 15	8	8	F	
1		SRTS					51	HPLL	HPLLFS	0, 1	1	1	F	14	VFX	Audio output fix data	0 - 255	240	240	F	
2		YNR					52	BPLL	BPLLFS	0, 1	0	0	F	15	AGCL	AGC Level	0 - 3	2	2	F	
3		GIRE					53	FSCF	FSCFG	0, 1	0	0	F	CCD							
4		DAC1					54	PLLF	PLLFG	0, 1	1	1	F	0	DUM0	For Testing only	-	-	0	F	
5		DAC2					55	KILR	Killer Reference	0 - 15	3	3	F	1	VOSD	For Testing only	-	-	0	F	
6		VMGA					56	HSSL	HSSL	0 - 15	12	12	F	OP							
7		GCUR					57	VSSL	VSSL	0 - 15	8	8	F	0	DISP	OSD Position	0 - 127	30	30	F	
8		BLKC					58	BGFS	BGP Start Position	0 - 15	4	4	F	1	RAMW	-	0, 1	0	0	F	
9		TEST					59	BGPW	BGP Width	0 - 15	10	10	F	2	ICMP	Comparison data to determine Noninterlace signal for OSD	0 - 31	4	4	F	
10		RS					60	ADCL	AD Clock Delay	0 - 3	3	3	F	3	IPOR	0: Even, 1: Odd, Other: do not change	0 - 3	1	1	F	
11		RTC					61	NSDW	NSDSW	0, 1	1	1	F	4	FAWD	1: Auto wide mode, 0: Normal	0, 1	0	0	F	
12		APAC					62	HIZE	HIZEN	0, 1	0	0	F	5	HCLW	Horiz Count Lower Limit	0 - 255	67	67	F	
13		SRTH					63	HCNT	HCNTFSYN	0, 1	0	0	F	6	HCHG	Horiz Count High Limit	0 - 255	254	254	F	
14		SRTH					PIP							7	9VTM	Delay fo 9V check subsystem	0 - 255	55	55	F	
15		SRTL					0	PFRN	VCXO FREE RUN	0, 1	0	0	F	8	ZDET	Zero detect relay delay	0 - 255	123	123	F	
16		SRTO					1	PRVS	HD/VD input sync select	0, 1	1	1	F	ID							
17		SHPH					2	PCON	PIP sub contrast	0 - 127	97	97	F	0	ID-0 (1)	Model Id	0 - 255	89	89	F	
18		SHPL					3	PUCO	PIP U level control	0 - 127	5	5	F	1	ID-1 (1)	Model Id	0 - 255	31	31	F	
3L-COMB							4	PVCO	PIP V level control	0 - 127	17	17	F	2	ID-2 (1)	Model Id	0 - 255	73	73	F	
0		FUNN					5	PHUE	PIP sub hue	0 - 63	12	12	F	3	ID-3 (1) (2) (4)	Model Id	0 - 255	98	98	F	
1		FUNP					6	PKIL	PIP color killer	0, 1	0	0	F	4	ID-3 (1) (3)	Model Id	0 - 255	82	82	F	
2		DRNG					7	PSEP	EXT SC SEL	0 - 3	1	1	F	5	ID-4 (1)	Model Id	0 - 255	14	14	F	
3		YCSM					8	PDCN	Sub picture sync sep Threshold	0 - 3	3	3	F	6	ID-5 (1)	Model Id	0 - 255	0	0	F	
4		CNRK					9	PBGS	PIP BG start setting	0 - 63	15	15	F	7	ID-6 (1) (2) (3)	Model Id	0 - 255	6	6	F	
5		CNRL					10	PDL0	Y/C delay adjust for Video	0 - 15	11	11	F	0	ID-7 (1)	Model Id	0 - 255	16	16	F	
6		CLPF					11	PDL1	Y/C delay adjust for YUV	0 - 15	13	13	F	PALETTE							
7		SLPF					12	PBRT	PIP Y bright control	0 - 31	25	25	F	Press Picture Mode button to change from one mode to another.							
8		MODE					13	PVP1	V pedestal level for YUV	0 - 15	0	0	F	Vivid Standard Movie Sports Code							
9		YPG					14	PUP1	U pedestal level for YUV	0 - 15	0	0	F	0	VPIC	User picture setting	63	50	38	63	F
10		PDS					15	PVP2	V pedestal level for main w/ burst	0 - 15	0	0	F	1	VBRT	User brightness setting	31	31	31	31	F
11		YLPF					16	PUP2	U pedestal level for main w/ burst	0 - 15	0	0	F	2	VCOL	User color setting	35	31	31	40	F
12		VENL					17	PVP3	V pedestal level for main w/o burst	0 - 15	0	0	F	3	VSHP	User sharpness setting	31	31	34	31	F
13		VEC					18	PUP3	U pedestal level for main w/o burst	0 - 15	0	0	F	4	VVM	0:Off, 1:Low, 2:High, 3:N/A	2	1	0	2	F
3D-COMB							19	PACS	0D, 0EH setting mode	0, 1	1	1	F	5	VTRI	0:Cool, 1:Neutral, 2:Warm, 3:N/A	0	1	2	0	F
0		COUT					20	PSYS	Color system	0 - 3	0	0	F	6	VGMA	0:Off, 1: Low, 2: Mid, 3: Max	2	2	2	2	F
1		YAPS					21	PSDL	Sync Delay control	0 - 3	0	0	F	7	VNRM	0: 3D, 1: 2D	0	0	0	0	F
2		NSDS					22	PCCL	YUV color level	0 - 15	11	11	F	8	VYDC	DC Transmission Ratio	3	3	2	3	F
3		MSS					23	PCGA	Chroma Gain	0, 1	1	1	F	0,1: 100%, 2: 92%, 3: 85%							
4		KILS					24	PAAF	Auto AFC	0, 1	1	1	F	9	VVEN	Verteca: Enhancement	5	3	3	5	F
5		DYC					25	PSU2	For test	0, 1	0	0	F	10	VHK0	Horiz Peaking 0: On, 1: Off	0	0	0	0	F
6		EXAD					26	PCVF	Internal 1H comb filter	0, 1	0	0	F	11	VDBK	User Dynablack	2	1	1	1	F
7		EXCS					27	PBIT	Y clamp time constant	0, 1	0	0	F	0:Off, 1:Low, 2:High, 3:N/A							
8		CPP					28	PAFC	AFC time constant	0, 1	0	0	F	12	VYPL	Y-Peaking Limit	1	0	0	1	F
9		HDP					29	PACC	Color decoder amplitude	0 - 63	22	22	F	(1) When replacing IC002, set to on set value for each model.							
10		CDL					30	PSDT	System automatic judgment	-	-	-	F	(2) Used in model KV-27FS100 (US).							
11		DYCO					31	PBUR	VCXO mode selection	0, 1	0	0	F	(3) Used in model KV-27FS100 (CND).							
12		DYCOR					32	PEVE	Main picture PAL -N	0, 1	0	0	F	(4) Used in model KV-27FS200 (US).							
13		DYGAIN					33	PINW	Invert sub picture field definition	0, 1	0	0	F								
14		DCCO					34	PINR	Invert main picture field definition	0, 1	0	0	F								
15		DCGA					35	PVMD	Vertical display mode when PAL -N	-	-	-	F								
16		YNRLL					36	PREF	Main picture field fix	0, 1	0	0	F								
17		CNRLIM					37	PARE	Automatic 50 / 60 Hz judgment	0, 1	1	1	F								
18		ID10N					38	PBWD	BW detect. Threshold setting	0, 1	0	0	F								
19		ID1W0A1					39	PFRA	Free Run mode Adjustment	0 - 15	0	0	F								
20		ID1W0A2					40	PPAL	Parameter setting for PAL -M Judgment	0 - 255	0	0	F								
21		WSC					41	PHPO	Sub picture H position	0 - 31	7	8	F								
22		VTRH					42	PVPO	Sub picture V position	0 - 31	22	22	F								
23		VTRR					43	PHTI	PIP HT	0 - 15	9	7	F								
24		LD					44	PHAJ	Main / Sub switch delay control	0 - 15	1	1	F								
25		WSS					45	PBGY	Back Ground Y Level setting	0 - 15	0	0	F								
26		FECON					46	PCRO	S UB PICTURE READ MODE	0 - 15	0	0	F								
27		FECON					47	PPAR	Threshold control for ident judge of sub	0 - 63	1	1	F								
28		FECON					48	PHPF	Y output HPF	0, 1	0	0	F								
29		FECON					49	PHFC	FSC output	0, 1	0	0	F								
30		FECON					50	PVCH	V-chip 15h, 16h, 17h, setting mode	0, 1	0	0	F								
31		FECON					51	PVON	V-chip decode mode	0, 1	1	1	F								
32		FECON					52	PVLN	V-chip data slicer line selection	0 - 31	17	17	F								
33		FECON					53	PVSB	V-chip data slicer start bit detect parameter	0 - 255	64	64	F								
34		FECON					54	PVLV	V-chip data slicer slice parameter	0 - 255	130	130	F								
35		FECON					55	SUSW	Sub-Unlock bit position switch	0, 1	0	0	F								
VID-ADJ							AP														
0		RDRV					0	SBAL	Sub Balance	0 - 7	4	4	F								
1		GDRV					1	SBAS	Sub Bass	0 - 7	4	4	F								
2		BDRV					2	STRE	Sub Treble	0 - 7	0	0	F								
3		RCUT					3	SRL	Surround level	0, 1	0	0	F								
4		GCUT					4	BBOH	Surround off - BBE High	0 - 15	7	7	F								
5		BCUT					5	BBOL	Surround off - BBE Low	0 - 15	5	5	F								
6		SCON					6	BBSH	Simulated - BBE High	0 - 15	0	0	F								
7		CHUE																			
8		CCOL																			
9		UOFS																			
10		VOFS																			
11		RON																			
12		GON																			
13		BON																			
14		HUEV																			
15		COLV																			

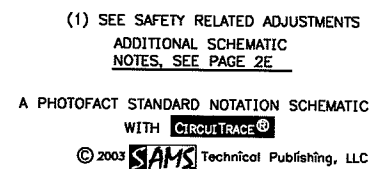
SCHEMATIC COMPONENT LOCATION GUIDE

C001	C35	C206	B41	C388	D63	C551	D12	C804	E30	C3338	D68	D521	E19	FB607	B53	L502	E8	Q601	C52	R052	E34	R207	C41	R383	E3	R560	D11	R701	C23	R909	C34	R3305	D67	X001	A37
C002	C35	C207	C42	C389	D63	C552	D12	C805	D29	C3339	D69	D522	E19	FB609	C54	L503	E7	Q605	D51	R053	D33	R208	D42	R384	C15	R561	D5	R702	C23	R910	C30	R3306	D68	X301	B7
C003	D34	C208	B41	C390	D63	C553	E8	C808	E26	C3340	D69	D523	E21	FB610	B49	L504	D12	Q606	E53	R054	B35	R209	D42	R386	B16	R563	E9	R703	C23	R910	C34	R3307	D67	X3301	E69
C004	D35	C209	B42	C393	B12	C554	E6	C809	D26	C3341	D69	D524	E21	FB611	A49	L505	E8	Q608	D50	R055	B35	R210	C42	R388	E2	R564	B56	R704	C24	R911	C26	R3308	D68		
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C006	C35	C213	D46	C396	D63	C563	D8	C811	D30	C3390	C59	D531	E58	FB616	A52	L517	D11	Q691	D52	R057	E38	R218	C41	R391	A5	R566	D5	R706	C24	R912	C34	R3310	D67		
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C032	D33	C332	C63	C416	C44	C618	C55	C909	A60	D101	E38	D624	C54	IC601	D52	L3390	C59	Q3301	D68	R078	B36	R308	C12	R503	E4	R593	A56	R723	B28	R922	C63	R3351	B70		
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C044	E35	C345	B11	C504	E4	C638	C56	C1238	A4	D209	B42	D690	D51	IC3390	C59	Q005	C1	R001	C34	R101	E38	R325	B13	R516	E20	R608	E52	R818	D28	R943	C64	R6002	C36		
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C049	B1	C350	B10	C509	E5	C647	C52	C1457	A46	D219	D46	D804	D28	J203	A3	Q300	B3	R006	A35	R105	A66	R332	D4	R523	D19	R614	D49	R824	E27	R1004	E37	RY501	B50		
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C051	B1	C352	C6	C511	E5	C649	B52	C1463	B47	D304	C14	D806	E29	J203	C41	Q302	A62	R010	B36	R107	A67	R334	B9	R525	E20	R616	D51	R826	E28	R1008	A33	RY600	A51		
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C053	D56	C354	B9	C513	E5	C651	E52	C3301	D67	D306	B4	D808	D27	J205	B41	Q304	C9	R012	B8	R108	A67	R336	C14	R528	D20	R619	C53	R828	D27	R1010	A34	S501	D7		
C054	B60	C355	B9	C514	E6	C652	D52	C3302	D67	D307	A6	D813	E27	J206	C10	Q305	C15	R013	E36	R108	B1	R337	C15	R529	E18	R620	E53	R829	D27	R1011	A34	S502	D8		
C055	C2	C356	B9	C515	E8	C653	D50	C3303	C59	D309	C11	D901	C29	J206	C11	Q306	A15	R015	D38	R110	B5	R338	B4	R530	E18	R625	C51	R833	D28	R1201	A7	S1001	A34		
C056	D56	C357	C14	C516	E8	C656	D51	C3304	E67	D310	C12	D902	C29	J206	C11	Q307	B15	R016	E38	R111	B8	R339	B14	R531	E19	R626	B51	R834	D28	R1202	A6	S1002	A34		
C057	D56	C358	B14	C517	E8	C658	E51	C3305	E68	D311	C11	D903	C26	J207	D47	Q308	C15	R017	E38	R112	B66	R340	A14	R532	E19	R627	B51	R840	C26	R1203	A6	S1003	A34		
C060	C37	C359	D3	C518	E7	C665	E55	C3308	C60	D320	A8	D1001	A34	J207	D47	Q309	A15	R018	D38	R113	B67	R341	B14	R533	E19	R629	B51								



## B





E

## PINCUSHION SCHEMATIC

F

## 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.

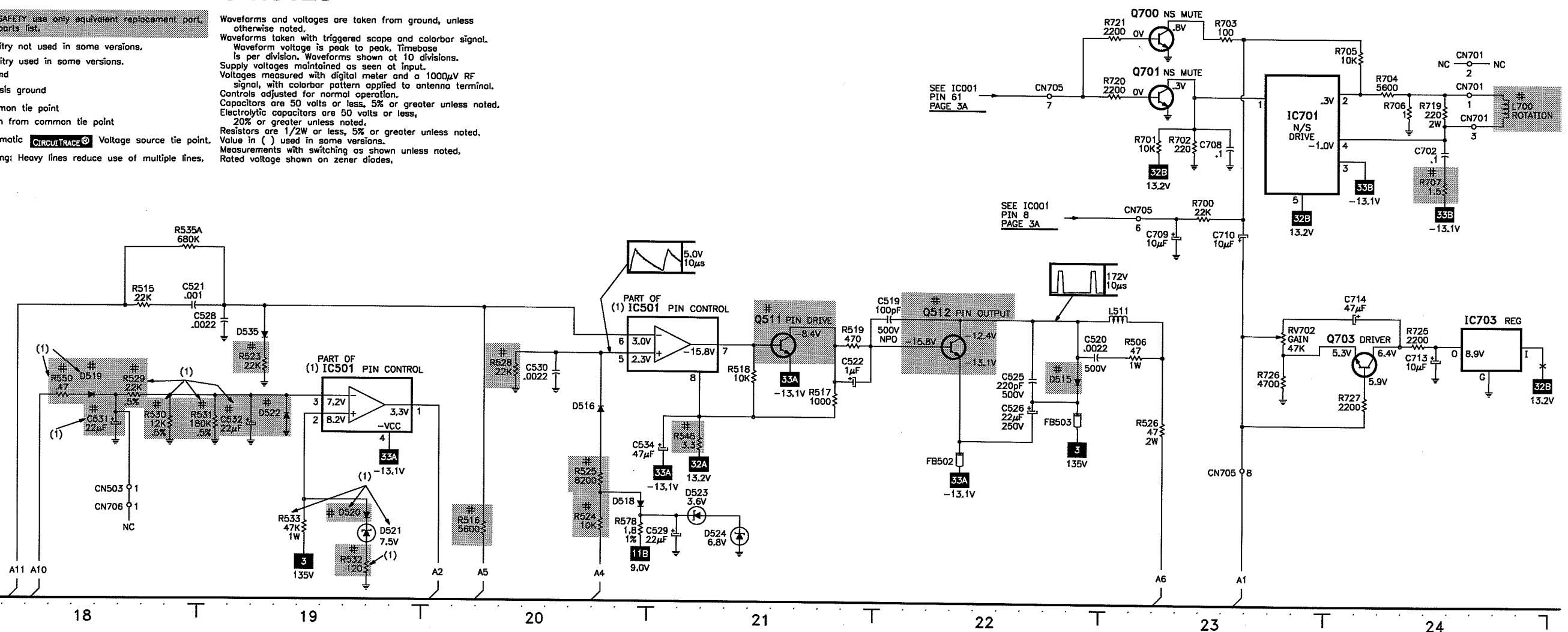
Value in ( ) used in some versions.

Measurements with switching as shown unless noted.

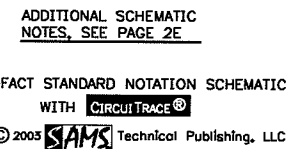
Rated voltage shown on zener diodes.

(1) SEE SAFETY RELATED ADJUSTMENTS  
A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCUITRACE®

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**SONY**  
**MODEL KV-27ES200 (CHASSIS SCC-S65E-A)**

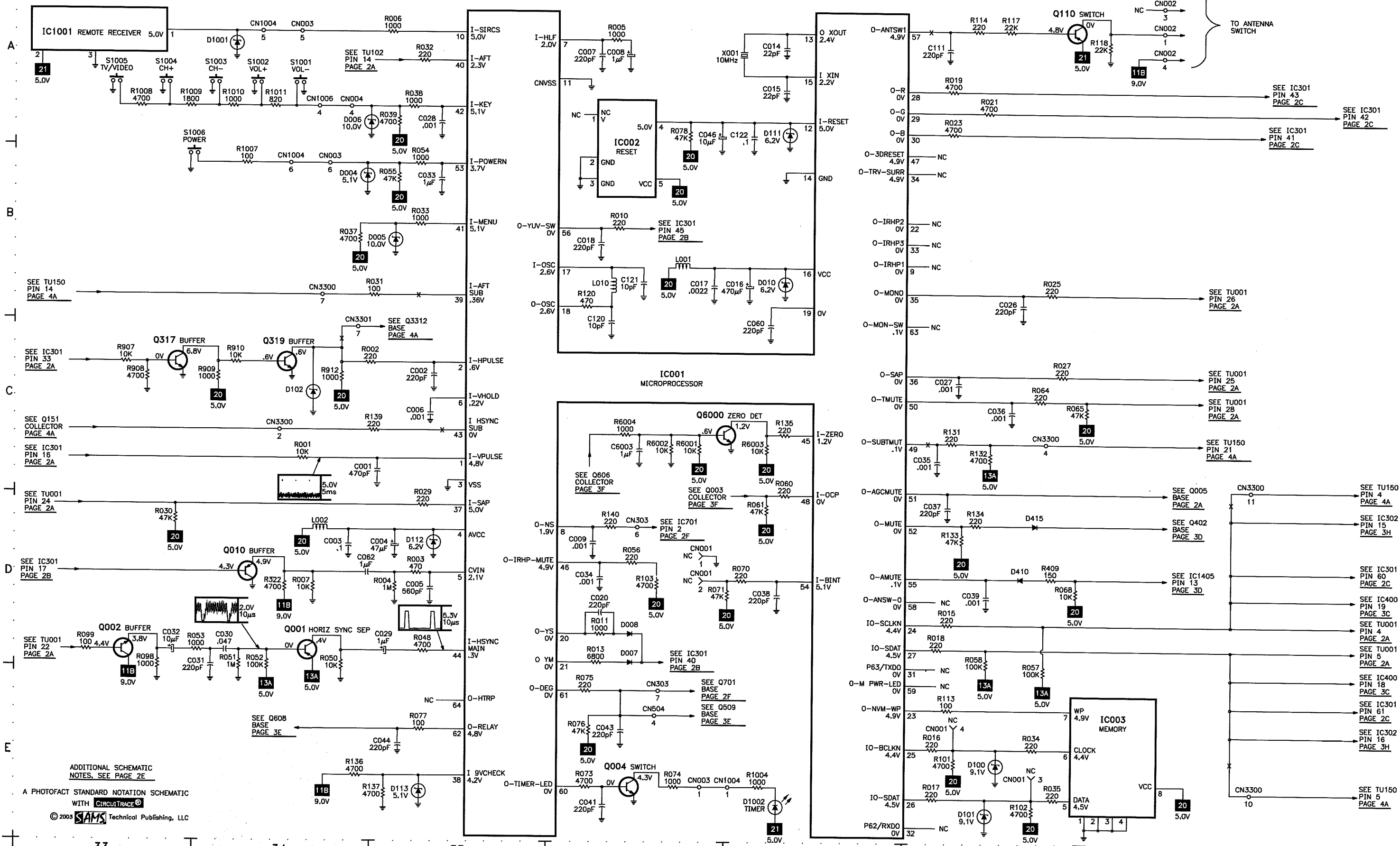




A

SYSTEM CONTROL SCHEMATIC

B

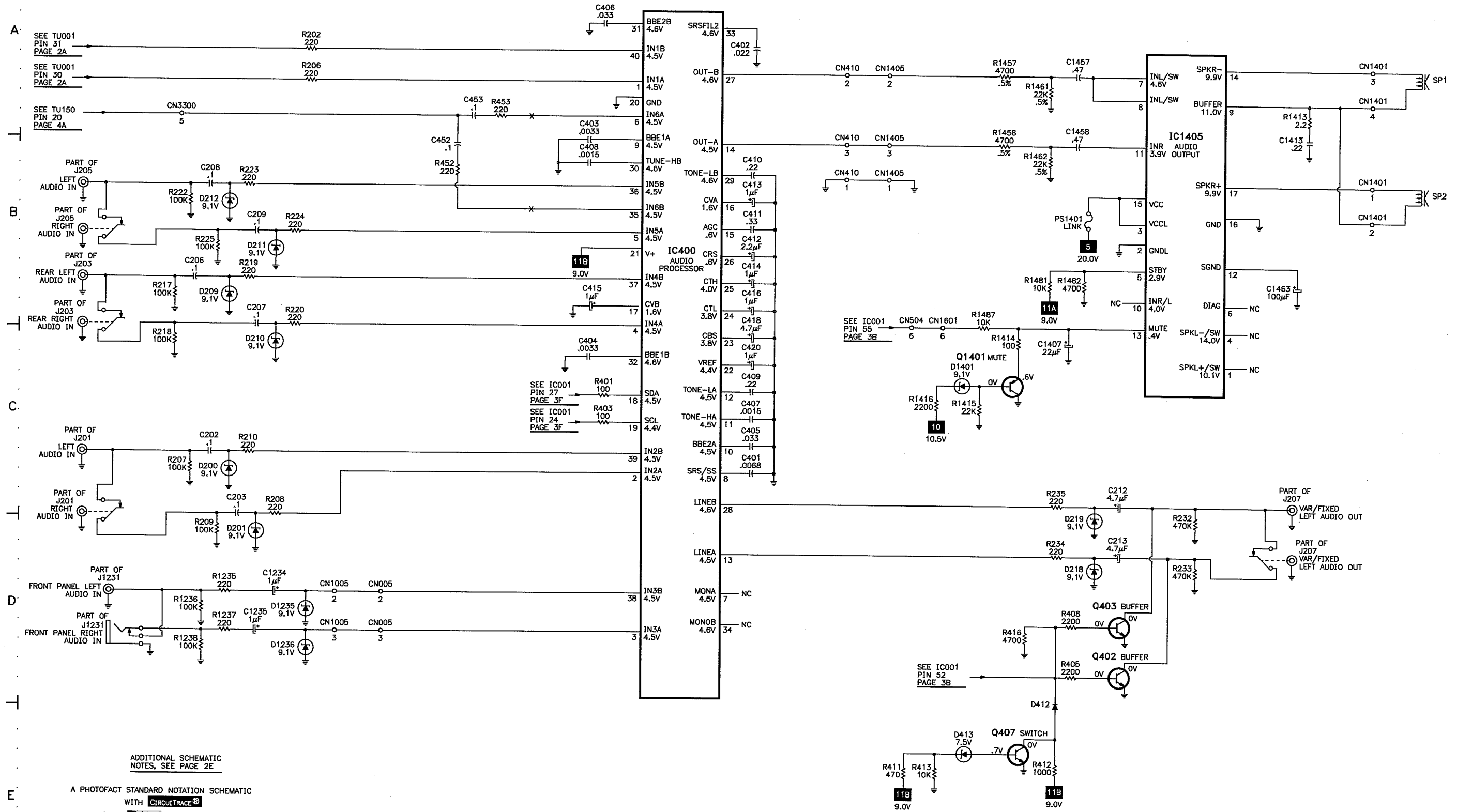


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2E

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCUITTRACE

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# AUDIO SCHEMATIC



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2E

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
WITH CIRCULTRACE

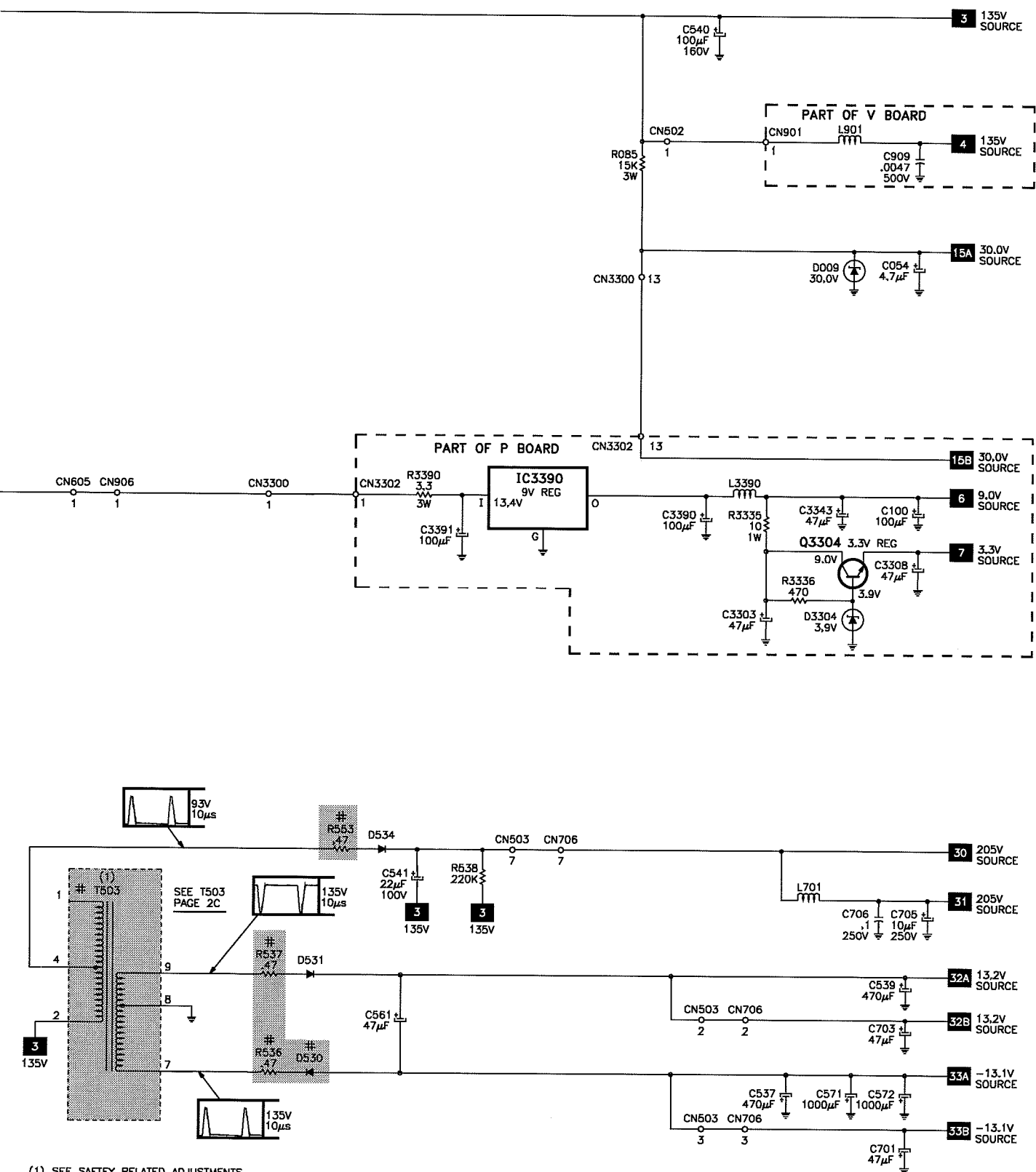
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# E



(1) SEE SAFETY RELATED ADJUSTMENTS

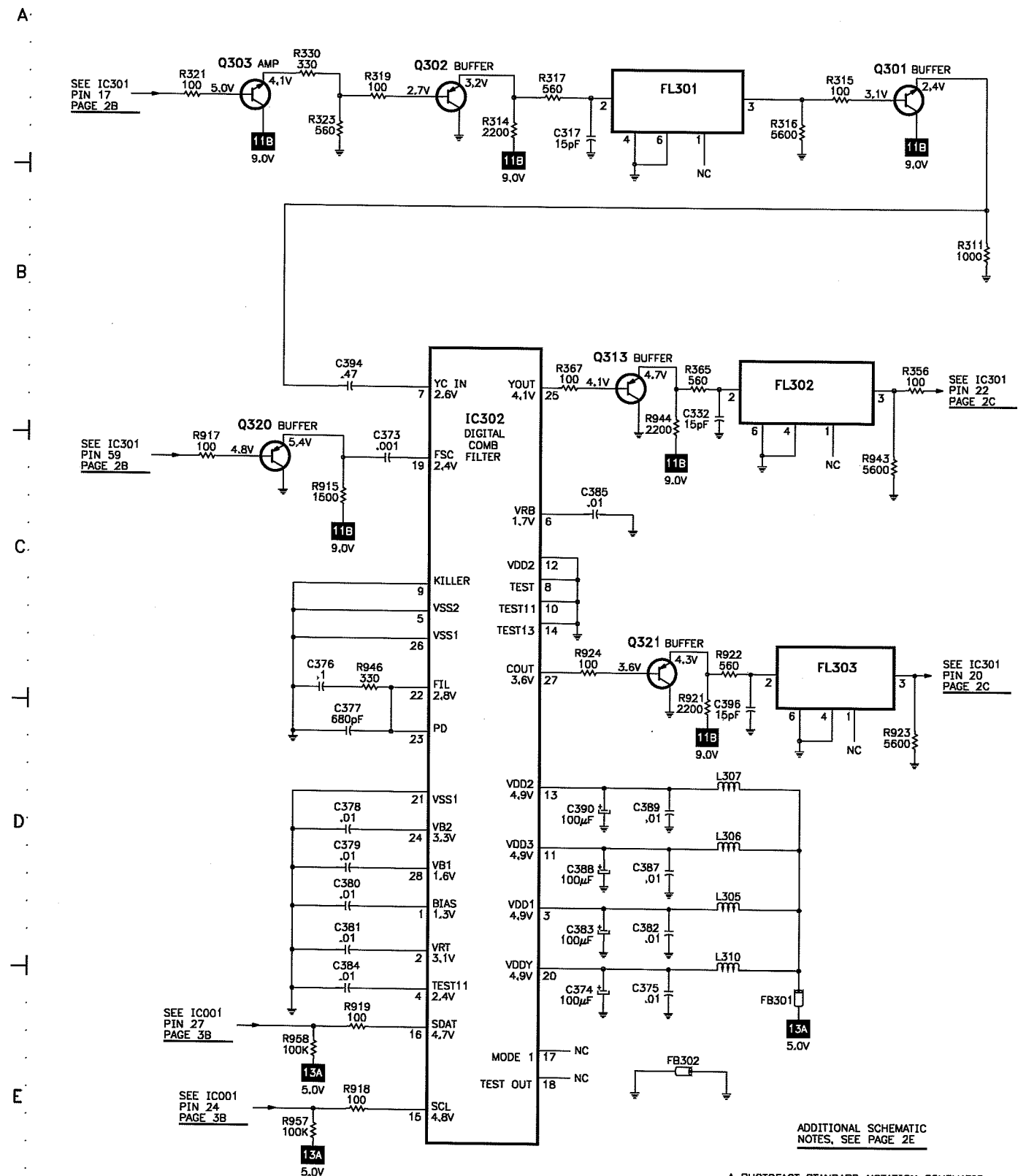
# POWER SUPPLY SCHEMATIC continued



(1) SEE SAFETY RELATED ADJUSTMENTS  
A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITTRACE**  
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ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2E

# COMB FILTER SCHEMATIC

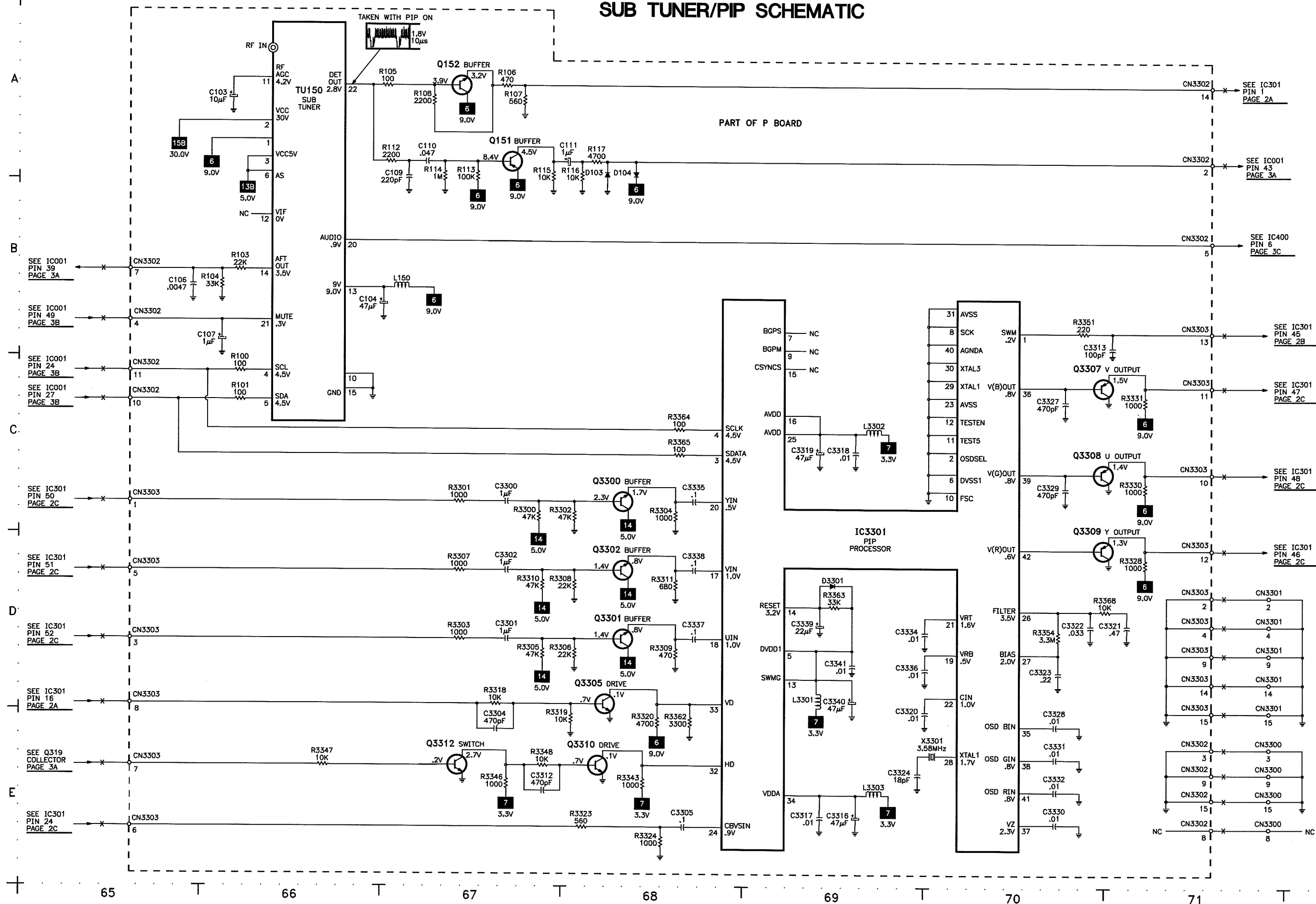


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2E

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITTRACE**  
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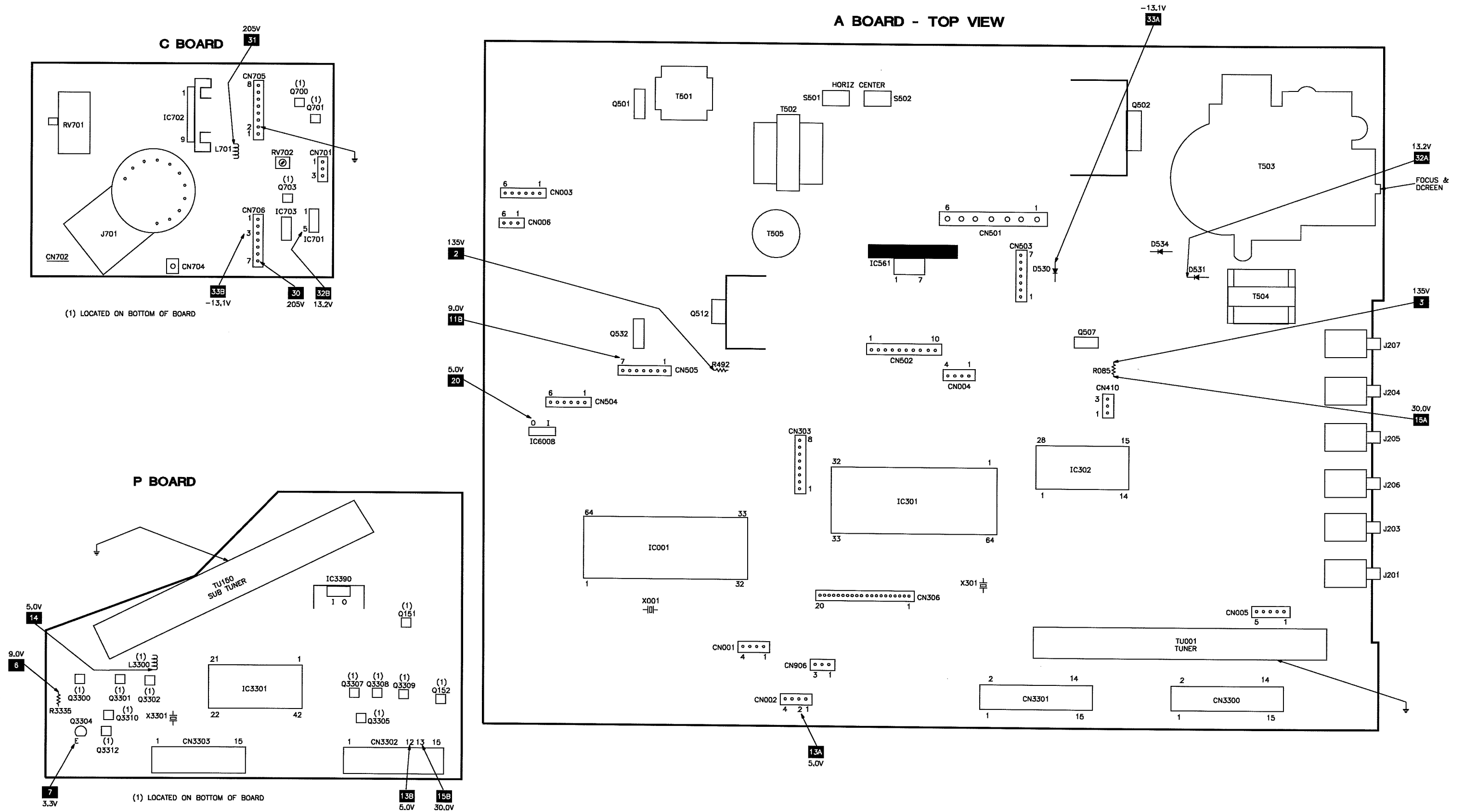
SONY  
MODEL KV-27FS200 (CHASSIS SCC-S65E-A)

## SUB TUNER/PIP SCHEMATIC



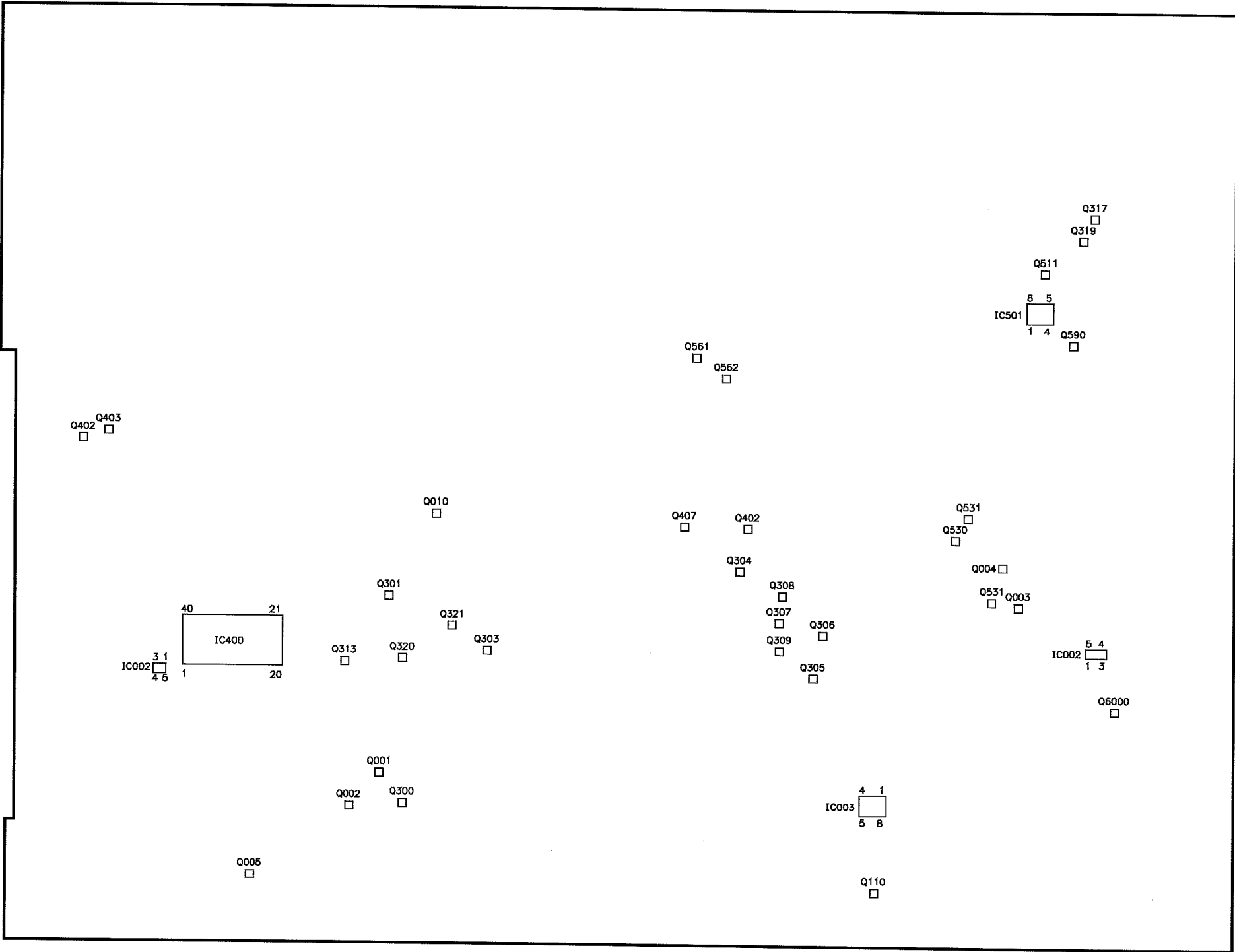


## PLACEMENT CHART

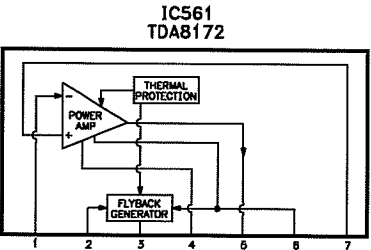


PLACEMENT CHART continued

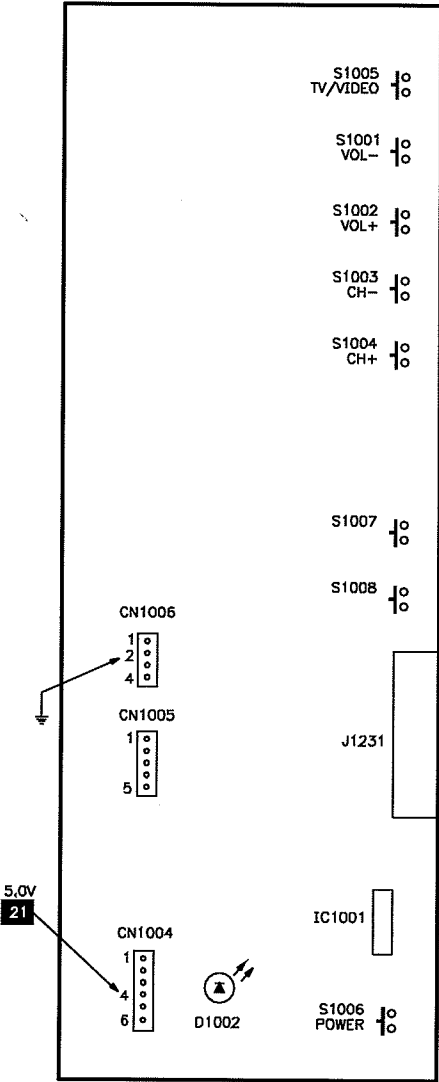
A BOARD - BOTTOM VIEW



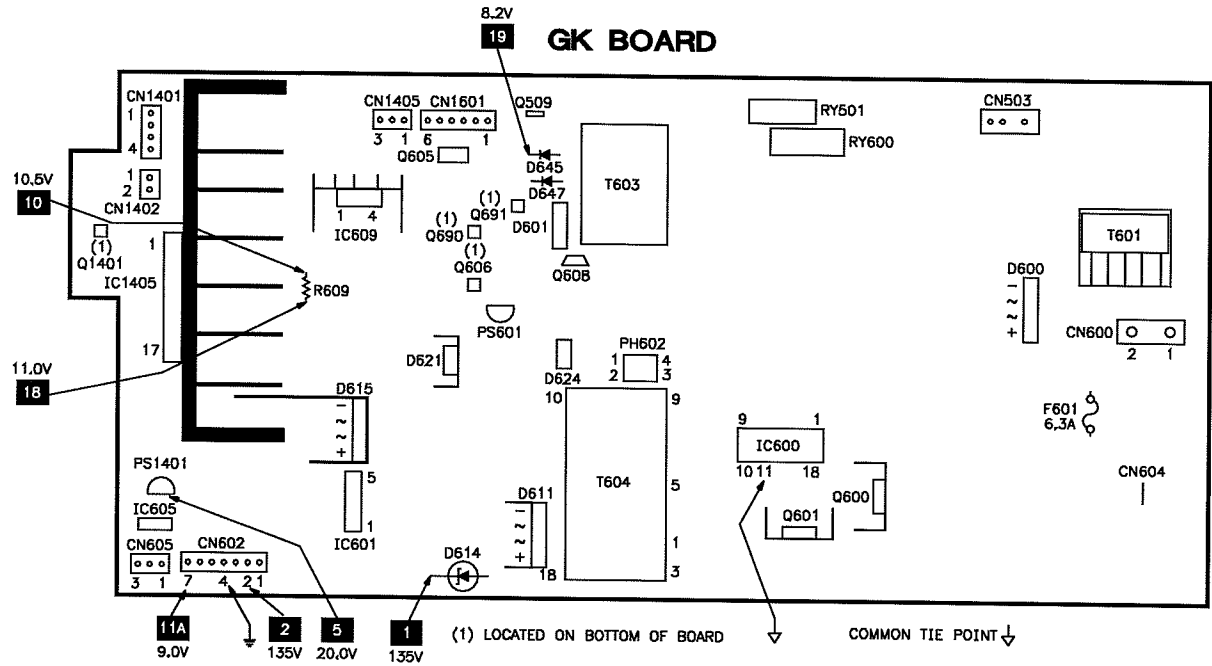
IC FUNCTION



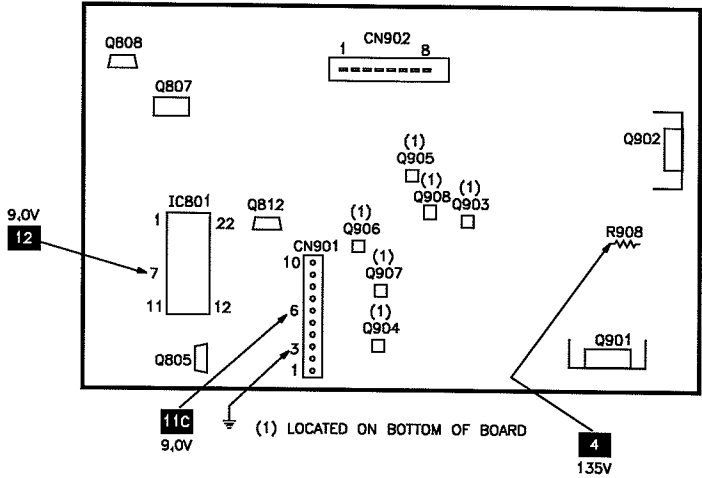
HS BOARD



PLACEMENT CHART continued



V BOARD



SAFETY RELATED ADJUSTMENTS

R530, R531 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components: IC501, D519, D520, D521, C531, C532, R550, R529 thru R533, CRT, DY, T503, 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 TP85 is more than 23.0V.
3. Disconnect power and remove solder from pin 11 of T505.
4. Connect a current meter between pin 11 of T505 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  $100\mu A \pm 100\mu A$ .
5. Confirm that the voltage at TP91 is  $135V \pm 1.5V$ .
6. Connect a voltmeter and a variable DC power supply to TP85 thru a 1SS119 diode. Increase the voltage supplied to TP85 gradually until the picture just blanks out.
7. Check DC voltage at TP503, it should measure less than 24.78V after picture has blanked out. Remove power to receiver immediately after confirming voltage.
8. Input a white signal. Adjust ABL current to  $2175\mu A \pm 100\mu A$  with picture and brightness settings to maximum.
9. Repeat steps 6 and 7.
10. DC voltage should measure less than  $27.24V + 0V / - 0.1V$  after picture has blanked out. Remove power to receiver immediately after confirming voltage.

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 R530 and R531.

B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

The following adjustment should always be performed when replacing IC600 or PH602.

1. Supply  $130VAC \pm 2.0V$  with variable AC transformer.
2. Receive a dot signal.
3. Set picture and brightness settings to minimum position.
4. Confirm that the voltage at TP23 is less than 136.5V.
5. If step 4 cannot be satisfied, replace R530 and R531 on A board, and repeat the above steps until results are satisfactory.
6. Write into memory by pressing mute button, then press 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 of flashes	Description of code	Possible malfunction
0	Power does not turn on.	Loss of AC supply or F601 is open.
2	High voltage hold down is activated. (OCP) B+ is activated.	Q502 or IC702 shorted.
3	B+ overvoltage (OVP) No vertical deflection.	IC501 is faulty, check pin 2 of IC501.
4	1 Prot	Failure of IC502 or loss of 12.0V supply.
5	White balance failure. 1K (AKB)	Failure of IC561 or IC702. Screen control needs adjustment.
9	Power does not turn on. Zero Cross	No zero cross pulses on pin 45 of IC1001.
10	Power does not turn on.	Relay RY600 failed, check 9V supply.

DIAGNOSTIC FUNCTION ON SCREEN DISPLAY

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 without allowing time between buttons. The on screen display will be shown as in the drawing below. After errors have been corrected clear the on screen display information by pressing 8 and enter. To exit the on screen display, press the power button. 0 indicates no fault has been detected. 1 indicates a fault has been detected.

DIAGNOSTIC FUNCTION ON SCREEN DISPLAY

SELF DIAGNOSTIC		
2:	+B OCP	000
3:	+B OVP	000
4:	VSTOP	000
5:	AKB	000
9:	ZCD	000
10:	9V	000
101:	WDT	000

SONY

MODEL KV-27FS200 (CHASSIS SCC-S65E-A)

PARTS LIST

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D002	MTZJ-T-77-6.2C	8-719-109-93	NTE5013A
D004	MTZJ-T-77-5.1C	8-719-921-44	-
D005, 06	MTZJ-T-77-10B	8-719-110-17	NTE5019A
D007, 08	MA111-TX	8-719-404-50	-
D009	MTZJ-T-77-30D	8-719-982-22	-
D010	MTZJ-T-77-6.2C	8-719-109-93	NTE5013A
D100, 01	MTZJ-T-77-9.1B	8-719-929-15	-
D102	MTZJ-T-77-5.1B	8-719-109-85	NTE5010A
D110	ISS133T-77	8-719-991-33	NTE519
D111, 12	MTZJ-T-77-6.2B	8-719-109-93	NTE5013T1
D113	MTZJ-T-77-5.1C	8-719-921-44	-
D200, 01	MTZJ-T-77-9.1B	8-719-929-15	-
D209 Thru			
D212	MTZJ-T-77-9.1B	8-719-929-15	-
D218, 19	MTZJ-T-77-9.1B	8-719-929-15	-
D303	MTZJ-T-77-9.1B	8-719-929-15	-
D304	MTZJ-T-77-5.1C	8-719-921-44	-
D305, 06, 07	MTZJ-T-77-9.1B	8-719-929-15	-
D309, 10, 11	MTZJ-T-77-9.1B	8-719-929-15	-
D320	ISS133T-77	8-719-991-33	NTE519
D410, 12	MA111-TX	8-719-404-50	-
D413	MTZJ-T-77-7.5B	8-719-921-63	-
D415	ISS133T-77	8-719-991-33	NTE519
D501	MTZJ-T-77-5.6C	8-719-109-89	NTE5011A
D501A	MA111-TX	8-719-404-50	-
D502	ERC06-15S	8-719-945-80	NTE525
# D503	ERC06-15S	8-719-945-80	NTE525
D504	RU4AM-T3	8-719-312-10	NTE580
D505, 06	GP08DPKG23	8-719-908-03	NTE116
D507	ISS133T-77	8-719-991-33	NTE519
# D508	ISS133T-77	8-719-991-33	NTE519
D510	IN4937/23	8-719-081-93	-
D511, 12	ERA38-06TP1	8-719-970-87	-
D513	MTZJ-T-77-15B	8-719-110-41	-
# D515	PR1004GT	8-719-075-41	-
D516, 18	ISS133T-77	8-719-991-33	NTE519
# D519	EL1Z-V1	8-719-302-43	NTE587
# D520	ISS133T-77	8-719-991-33	NTE519
D521	MTZJ-T-77-7.5X	8-719-921-63	-
# D522	ISS133T-77	8-719-991-33	NTE519
D523	MTZJ-T-77-3.6B	8-719-109-69	-
D524	MTZJ-T-77-6.8B	8-719-109-97	NTE5014A
# D530	RGP15GPKG23	8-719-979-85	NTE580
D531	RGP15GPKG23	8-719-979-85	NTE580
D534	RGP10GPKG23	8-719-302-43	NTE552
D535	MA111-TX	8-719-404-50	-
D561	IN4003GA	8-719-075-33	NTE116
# D580	ISS133T-77	8-719-991-33	NTE519
D590	ISS133T-77	8-719-991-33	NTE519
D600	D4SB60L-F	8-719-510-53	NTE5319
D601	S1VB20	8-719-511-40	NTE167
D611	D4SBL20	8-719-062-40	-
D612, 13	ERC04-06SE	8-719-068-00	-
D614	EZ0150AV1	8-719-057-52	-
D615	D4SBL20	8-719-062-40	-
D618	F4005PKG23	8-719-979-64	-
D620	MA111-TX	8-719-404-50	-
D621	MA6D50	6-500-181-01	-
D624	D10SC4M	8-719-510-12	NTE6085
D625	D1NS4-TA2	8-719-510-02	-
D628	MA111-TX	8-719-404-50	-
D629	MTZJ-T-77-12C	8-719-110-31	NTE5021T1
D631	D1NL20U-TA2	8-719-063-70	-
D640, 41	MA111-TX	8-719-404-50	-
D645	D1NL20U-TA2	8-719-063-70	-
D646	MA111-TX	8-719-404-50	-
D647	D1NL20U-TA2	8-719-063-70	-

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D690	MTZJ-T-77-27	8-719-982-13	-
D701, 02, 03	ISS83TD	8-719-901-83	NTE177
D704	RGP10GPKG23	8-719-302-43	NTE552
D1001	MTZJ-T-77-9.1B	8-719-929-15	-
D1002	LNK0120022G	8-719-070-80	-
D1233, 35, 36	MTZJ-T-77-9.1B	8-719-929-15	-
D1401	MTZJ-T-77-9.1B	8-719-929-15	-
IC001	M306V5ME-109SP	6-801-165-01	-
IC002	BD4743G-TR	6-701-929-01	-
IC003	BR24C16F-E2	8-759-641-86	-
IC301	CXA2154AS	8-752-100-49	-
IC302	TC90A69N	6-701-597-01	-
IC400	NJW1135GK1-TE2	6-701-753-01	-
IC501	NJM2903M-TE2	8-759-700-07	-
# IC561	TDA8172	8-759-980-58	NTE1788
IC600	MCZ3001D	8-759-670-30	-
IC601	DM-58	8-749-012-13	-
IC605	BA05T	8-759-450-47	-
IC609	PQ09RD21	8-759-653-07	-
IC701	LA6500-FA	8-759-803-42	-
IC702	TDA6108JF/N1B	8-759-562-43	-
IC703	NJM78M09FA	8-759-701-59	NTE1966
IC801	UPC5023CS-184	6-701-598-01	-
IC1405	TDA8580Q/N1	8-759-573-40	-
IC6008	NJM2930F05	6-701-752-01	-
# PH602	0N3171-R	8-749-924-35	-
Q001	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q002	2SD601A-QRS-TX	8-729-422-27	NTE2408
# Q003	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q004, 05	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q010	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q110	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q300	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q301	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q302	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q303, 04	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q305	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q306	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q307, 08, 09, 13	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q317, 19	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q320, 21	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q402, 03, 07	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q501	2SC3209LK-TP	8-729-140-50	NTE399
# Q502	2SD2645-YB	8-550-107-01	-
Q507	2SC3840K	8-729-043-95	-
Q509	2SC3311A-QRSTA	8-729-423-33	NTE2361
# Q511	2SC2412K-T-146-QR	8-729-120-28	NTE2408
# Q512	2SC4159-E	8-729-809-29	NTE54
# Q530	2SD601A-QRS-TX	8-729-422-27	NTE2408
# Q531	2SB709A-QRS-TX	8-729-424-02	NTE2409
# Q532	2SA1091O-TPE2	8-729-200-17	NTE288
Q561	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q562	2SC2412K-T-146-QR	8-729-120-28	NTE2408
# Q590	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q600, 01	IRFIB7N50A-LF31	8-729-052-32	-
Q605	2SD774-T-34	8-729-140-96	NTE382
Q606	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q608	2SD2144S-TP-UVW	8-729-922-37	-
Q690, 91	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q700, 01, 03	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q1401	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q6000	2SD601A-QRS-TX	8-729-422-27	NTE2408
P BOARD			
D103, 04	MA111-TX	8-719-404-50	-
D3301	MA111-TX	8-719-404-50	-

PARTS LIST continued

Item No.	Type No.	Mfr. Part No.	NTE Part No.
D3304	MTZJ-T-77-3.9B	8-719-109-72	NTE5007A
IC3301	M65665ASP	6-701-754-01	-
IC3390	NJM78M09FA	8-759-701-59	NTE1966
Q151	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q152	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q3300, 01, 02	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q3304	2SD1292	8-729-926-14	NTE31
Q3305	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q3307, 08, 09	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q3310, 12	2SD601A-QRS-TX	8-729-422-27	NTE2408

V BOARD

D804	RGPI0GPKG23	8-719-302-43	NTE552
D805, 06	1SS133T-77	8-719-991-33	NTE519
D807	ERA82-004TP5	8-719-210-21	-
D808, 13	1SS133T-77	8-719-991-33	NTE519
D901, 02	MTZJ-T-77-39	8-719-110-86	-
D903	1SS133T-77	8-719-991-33	NTE519
Q805	KTB764	6-550-106-01	-
Q807	IRF614	8-729-931-45	-
Q808	KTB764	6-550-106-01	-
Q812	2SA933AS-QRT	8-729-026-39	-
Q901	2SC5511	8-729-045-04	-
Q902	2SA2005	8-729-045-05	-
Q903, 04	2SD601A-QRS-TX	8-729-422-27	NTE2408
Q905	2SB709A-QRS-TX	8-729-424-02	NTE2409
Q906	2SC2412K-T-146-QR	8-729-120-28	NTE2408

Item No.	Function/Rating	Mfr. Part No.	Notes
# C507, 09	680pF 10% 2kV	1-162-116-00	-
# C511	.017 1.2kV	1-136-086-00	-
# C513	.047 5% 630V	1-129-722-00	-
# C514	.68 5% 400V	1-109-844-11	-
# C516	1µF 5% 250V	1-115-522-11	-
C519	100pF 5% 500V NPO	1-107-612-11	-
# C527	680pF 10% 2kV	1-162-116-00	-
# C531, 32	22µF 20% 50V	1-126-965-91	-
# C535	.1 16V	1-164-360-11	-
# C553	.1 5% 400V	1-107-846-11	-
# C554	.0027 3% 1.2kV	1-117-629-11	-
# C590	10µF 20% 50V	1-126-964-11	-
# C601, 03	.22 10% 275V	1-165-529-11	-
# C607	470pF 10% 250V	1-119-911-51	-
# C608	.001 20% 250V	1-119-912-51	-
C633	.001 2% 50V	1-136-479-11	-
C648, 49	470pF 10% 1kV	1-104-390-91	-
C672	.047 3% 800V	1-165-953-11	-
C707	.0047 2kV	1-162-114-00	-
# DY	Yoke	8-451-494-41	-
# F601	Fuse	1-576-193-11	6.3A
FB301	Ferrite Bead	1-412-911-11	-
FB302	Ferrite Bead	1-414-234-22	-
FB501 Thru			
FB505	Ferrite Bead	1-410-397-21	-
FB602, 04, 05	Ferrite Bead	1-410-397-21	-
FB606, 07	Ferrite Bead	1-410-396-41	-
FB609, 10, 11	Ferrite Bead	1-410-397-21	-
FB614, 16, 17	Ferrite Bead	1-410-397-21	-
FL301, 02, 03	Filter	1-239-847-11	-
IC1001	Receiver	8-742-212-20	Remote, SBX3081-71
J201	Jack	1-794-119-11	Assembly
J203	Jack	1-794-118-11	Assembly
J205	Jack	1-794-116-11	Assembly
J206	Jack	1-794-117-11	Assembly
J207	Jack	1-794-116-11	Assembly
J1231	Jack	1-794-048-11	Assembly

Item No.	Function/Rating	Mfr. Part No.	Notes
L001, 02	100µH	1-410-482-31	-
L003	10µH	1-412-029-11	-
L004, 09	100µH	1-410-482-31	-
L010	6.8µH	1-414-182-11	-
L300, 01	100µH	1-410-482-31	-
L302	10µH	1-412-029-11	-
L303	47µH	1-410-478-11	-
L304	10µH	1-410-470-11	-
L305, 06, 07, 10	10µH	1-410-470-11	-
# L500	Degaussing	1-419-156-21	-
L501	10mH	1-406-677-11	-
L502	2.2mH	1-412-552-11	-
L503, 04	10mH	1-406-677-11	-
# L505	150µH	1-406-978-11	-
L505A	22µH	1-412-529-11	-
L511	8mH	1-409-955-11	-
L517	2.2mH	1-412-552-11	-
L604	10µH	1-412-525-31	-
L605, 06	3.3µH	1-412-519-11	-
L607	10µH	1-412-525-31	-
L608	22µH	1-412-529-11	-
# L700	Rotation	1-452-896-11	-
L701	68µH	1-408-613-31	-
# P600	Line Cord	1-791-935-12	AC, Polarized
PS601	Link	1-576-337-21	IC
PS1401	Link	1-576-337-21	IC
R020, 22, 24	680 .5% 1/16W	1-218-688-11	-
# R063, 80	4700 5% 1/10W	1-216-829-11	-
R085	15K 5% 3W	1-215-924-00	-
R331	10K .5% 1/16W	1-218-716-11	-
# R503	4700 5% 1/4W	1-249-425-11	-
# R509	1000 5% 1/2W	1-260-328-11	-
# R510	33 5% 2W	1-215-883-11	-
R512	68 5% 3W	1-215-910-00	-
# R516	5600 5% 1/10W	1-216-830-11	-
R520	22 5% 3W	1-215-907-11	-
# R523	22K 5% 1/10W	1-216-837-11	-
# R524	10K 5% 1/4W	1-249-429-11	-
# R525	8200 5% 1/4W	1-249-428-11	-
# R528	22K 5% 1/10W	1-216-837-11	-
# R529	22K .5% 1/16W	1-218-724-11	-
# R530	12K .5% 1/16W	1-218-718-11	-
# R531	180K .5% 1/16W	1-218-746-11	-
# R532	120 5% 1/10W	1-216-810-11	-
# R536, 37	.47 5% 1/2W	1-260-288-11	-
R541	6800 5% 3W	1-215-922-11	-
R542	8200 5% 3W	1-216-486-00	-
# R543	.47 5% 1/4W	1-249-377-11	-
# R545	3.3 5% 1/4W	1-249-387-11	-
R546, 47	33K 1% 1/4W	1-215-457-00	-
R548	8200 5% 3W	1-216-486-00	-
R549	4700 1% 1/4W	1-215-437-00	-
# R550, 53	.47 5% 1/4W	1-249-377-11	-
R560	6800 5% 3W	1-215-922-11	-
# R563	1.8 1% 1/2W	1-214-798-21	-
# R564	470K 5% 1/4W	1-247-895-91	-
# R567	2.2 5% 1/4W	1-249-385-11	-
# R574	1.8 1% 1/2W	1-214-798-21	-
R576	22 5% 3W	1-215-907-11	-
R578	1.8 1% 1/2W	1-214-798-21	-
# R590	100 5% 1/10W	1-216-809-11	-
# R591	1000 5% 1/4W	1-249-417-11	-
# R592	.33 5% 2W	1-216-363-00	-
# R593	1800 5% 1/4W	1-249-420-11	-
# R594	10K 5% 1/4W	1-249-429-11	-
# R595	330K 5% 1/4W	1-247-891-00	-
# R596	100K 5% 1/4W	1-249-441-11	-



PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes
# R598	6800 5% 1/10W	1-218-867-11	-
# R599	2200 5% 1/10W	1-216-825-11	-
# R603	4.7M 5% 1/2W	1-219-513-11	-
R609	1 5% 10W	1-205-998-11	-
R615	.1 10% 1/2W Fusible	1-202-933-61	-
# R619	.47 5% 1/4W	1-249-377-11	-
R626	9100 .5% 1/16W	1-218-715-11	-
R627, 29	330K 1% 1/4W	1-215-481-00	-
# R630	330K 1% 1/4W	1-215-481-00	-
R631	15K .5% 1/16W	1-218-720-11	-
R632	100 .5% 1/16W	1-218-668-11	-
# R640	1000 5% 1/4W	1-249-417-11	-
R647	91 .5% 1/16W	1-218-667-11	-
# R658, 59	10 5% 1/4W	1-249-393-11	-
# R668	470 5% 1/4W	1-249-413-11	-
# R674	.47 10% 1/2W Fusible	1-220-926-11	-
R687, 88	1 5% 10W	1-205-998-11	-
# R707	1.5 5% 1/4W	1-249-383-11	-
R1457, 58	4700 .5% 1/16W	1-218-708-11	-
R1461, 62	22K .5% 1/16W	1-218-724-11	-
RV701	110M VSTAT	1-241-656-11	-
RV702	47K Gain	1-238-019-11	-
# RY501	Relay	1-755-198-11	Degaussing
# RY600	Relay	1-755-395-11	Power
S501	Switch	1-572-707-11	Horizontal Centering
S502	Switch	1-572-707-11	Horizontal Centering
S1001	Switch	1-692-431-21	Volume -
S1002	Switch	1-692-431-21	Volume +
S1003	Switch	1-692-431-21	Channel -
S1004	Switch	1-692-431-21	Channel +
S1005	Switch	1-692-431-21	TV/Video
S1006	Switch	1-692-431-21	Power
S1007	Switch	1-762-816-11	Menu
S1008	Switch	1-762-816-11	Menu
SP1, 2	Speaker	1-825-206-11	-
T501	Horizontal Drive	1-433-836-11	-
# T502	PMT	1-426-981-11	-
# T503 (1)	Horizontal Output	1-453-310-11	-
T504	Dynamic Focus	1-433-533-11	-
# T505	Horizontal Linearity	1-431-693-11	-
# T601	Line Filter	1-435-617-11	-
# T603	Standby	1-437-783-11	-
# T604	Power	1-437-607-11	-
TH501	Thermistor	1-800-193-00	-
THP501	Thermistor	1-804-313-11	-
# TU001	Tuner	8-598-593-40	BTF-WA421
# V701	CRT	8-735-082-05	M68LNH050X
VDR600	Varistor	1-803-585-11	-
X001	Crystal	1-781-931-11	10MHz
X301	Crystal	1-567-505-11	-
#	Antenna Switch	1-771-787-13	RF
#	Fuse Holder	1-533-223-11	For F601 (2 Used)
#	Neck Assembly	8-453-011-11	-
	Magnet	4-083-414-01	Convergence Correction
	Magnet	1-452-032-00	Disc
	Magnet	1-452-885-11	Landing
	PC Board (2)	A-1300-564-A	A
	PC Board (3)	A-1300-565-A	A
	PC Board	A-1400-455-A	C
	PC Board (2)	A-1401-097-A	GK
	PC Board (3)	A-1401-102-A	GK
	PC Board	A-1401-099-A	HS
	Transmitter (2)	1-476-680-21	Remote, RMY-180
	Transmitter (3)	1-476-681-11	Remote, RMY-181
	Wedges	4-053-005-01	Yoke Positioning (3 Used)

Item No.	Function/Rating	Mfr. Part No.	Notes
P BOARD			
L150	100μH	1-414-857-11	-
L3300	10μH	1-412-058-11	-
L3301	470μH	1-410-682-31	-
L3302, 03	10μH	1-412-058-11	-
L3390	10μH	1-412-525-31	-
R3390	3.3 5% 3W	1-216-395-00	-
TU150	Tuner	8-598-594-00	BTF-FA421
X3301	Crystal	1-781-377-21	3.58MHz
	PC Board (3)	A-1400-456-A	P
V BOARD			
L801	10mH	1-406-989-21	-
L802	10mH	1-459-111-00	-
L803	22μH	1-412-529-81	-
L901	18μH	1-412-528-11	-
R817	22K .5% 1/16W	1-218-724-11	-
R821	33K .5% 1/16W	1-218-728-11	-
R824	100K .5% 1/16W	1-218-740-11	-
R827	4700 .5% 1/16W	1-218-708-11	-
R828	33K .5% 1/16W	1-218-728-11	-
R833	5600 .5% 1/16W	1-218-710-11	-
R834	3900 .5% 1/16W	1-218-706-11	-
R840, 42	2200 .5% 1/16W	1-218-700-11	-
R855	15K .5% 1/16W	1-218-720-11	-
R856	4700 .5% 1/16W	1-218-708-11	-
R857	10K .5% 1/16W	1-218-716-11	-
R860	10K .5% 1/16W	1-218-716-11	-
R864	100 .5% 1/16W	1-218-668-11	-
R890	6800 .5% 1/16W	1-218-712-11	-
# R901	47 5% 1/4W	1-249-401-11	-
# R902	2.7 5% 1/4W	1-249-386-11	-
# R903	560 5% 1/4W	1-249-414-11	-
# R907	2.7 5% 1/4W	1-249-386-11	-
# R908	560 5% 1/4W	1-249-414-11	-
R910	180 5% 3W	1-216-476-11	-
	PC Board	A-1401-098-A	V

# For SAFETY use only equivalent replacement part.  
(1) Screen and focus controls are part of T503.  
(2) Used in model KV-27FS100.  
(3) Used in model KV-27FS200.

PARTS LIST continued

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

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.

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

SONY

MODEL KV-27FS200 (CHASSIS SCC-S65E-A)