

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 as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to SAMS Technical Publishing by the manufacturers of the specific type of replacement part listed.

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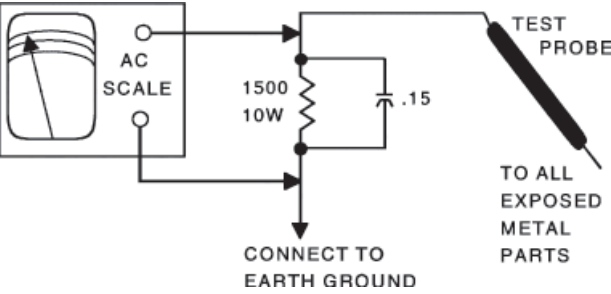
SAFETY CHECKS — FIRE AND SHOCK HAZARD

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.



PHOTOFACT® Technical Service Data

SONY

MODEL KV-29FS12 (CHASSIS SCC-S38K-A)



Representative Model

Essential coverage  
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

Coverage includes this additional model and chassis:

Model	Chassis
KV-29FS12C	SCC-S38L-A



AUGUST 2009 SET 5492

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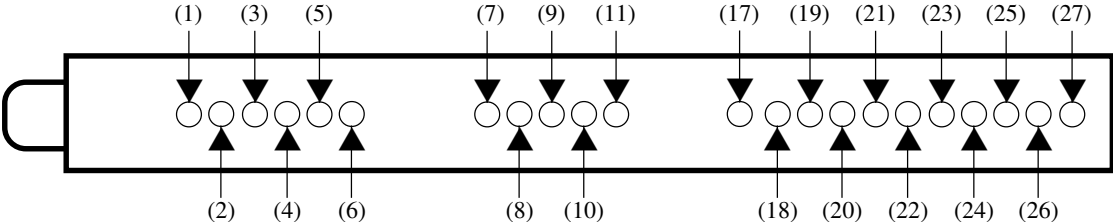
## TUNER INFORMATION

TU101 TUNER VOLTAGE CHART

Pin	Pin Name	Voltage	Pin	Pin Name	Voltage	Pin	Pin Name	Voltage
(1)	VCC 9V	9.0V	(9)	VCC 9V	8.9V	(22)	F MONO	0V
(2)	VCC 30V	30.0V	(10)	AFT	4.1V	(23)	SMD	0V
(3)	VCC 5V	5.0V	(11)	NC	0V	(24)	MUTE	5.0V
(4)	SCL	4.8V	(17)	DET OUT2	4.7V	(25)	S OUT	0V
(5)	SDA	4.8V	(18)	DET OUT1	4.4V	(26)	R OUT	4.5V
(6)	ENABLE	0V	(19)	STEREO LED	5.0V	(27)	L OUT	4.5V
(7)	RF AGC	4.7V	(20)	SAP LED	5.0V			
(8)	IF OUT	4.7V	(21)	MODE	.3V			

NOTE: Voltages do not change on different bands.

TU101 TUNER TERMINAL GUIDE



## MISCELLANEOUS ADJUSTMENTS

### B+ CHECK

Connect a digital DC voltmeter to the cathode of TP600. Set brightness and picture to minimum. With AC line voltage set to 130VAC, B+ should read 135V ±1.0V.  
**NOTE:** Perform B+ Check when IC601, PH601 are changed on the “A” board.

### 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

- 1.Tune in a picture and turn receiver off.
- 2.Press the display button, the 5 button, the volume + 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.Press Muting then Enter buttons to write into memory.
- 5.Press 8 then Enter buttons to initialize.
- 6.To recover the latest values press the 0 then enter buttons.

#### 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, 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.

DIGITAL SERVICE ADJUSTMENTS

No.	Display	Item	Data Range	Initial Value	On-Set Value	No.	Display	Item	Data Range	Initial Value	On-Set Value	No.	Display	Item	Data Range	Initial Value	On-Set Value	No.	Display	Item	Data Range	Initial Value	On-Set Value
1	HSIZ	Horizontal Size	0 - 63	15	15	71	NCOL	No Color ID	0 , 1	1	1	141	PVCO	V-DAC	0 - 127	24	18	178	PHTI	PIP HT	0 - 15	9	7
2	HPOS	Horizontal Position	0 - 63	13	24	72	FSC	FSC Out	0 , 1	1	1	142	PHUE	PIP HUE	0 - 31	15	15	179	PHAJ	PIP Adjust	0 - 15	1	1
3	VBOW	Vertical L INE Bow	0 - 15	9	8	73	K-ID	Killer ID Control Switch	0 , 1	0	0	143	PKIL	PIP COLOR KILLER	0 , 1	0	0	180	PBGY	PIP BGY	0 - 15	0	0
4	VANG	Vertical L INE Bow Angle	0 - 15	8	8	74	GDOF	-	0 - 31	3	3	144	PSEP	EXT SC SEL	0 - 3	2	2	181	PCRO	CROSS_SEL	0 , 1	0	0
5	VTRP	Trapezium	0 - 15	19	19	75	BDOF	-	0 - 31	16	16	145	PHIM	-	0 , 1	0	0	182	PPAR	-	0 - 63	2	2
6	HTRP	Horiz Trapezoid Adj	0 - 15	6	2	76	GCOF	-	0 - 31	16	16	146	PSUB	-	0 , 1	0	0	183	PHPF	HPF OFF	0 , 1	0	0
7	TROT	Tilt Correction	0 - 63	31	31	77	BCOF	-	0 - 31	7	7	147	PBGS	PIP BG START	0 - 63	14	14	184	PFSC	FSC_OUTPUT	0 , 1	0	0
8	PAMP	Horizontal Pin Compensat	0 - 63	19	22	78	SYSC	Color System	0 - 7	4	4	148	PDL0	-	0 - 15	6	6	185	PVCH	SET_VCHIP	0 , 1	0	0
9	UPIN	Upper Pin Distortion Adj	0 - 63	34	35	79	VENH (2)	Vertical Enhancement	0 - 7	5	5	149	PDL1	-	0 - 15	13	13	186	PVON	VCHIP_ONLY	0 , 1	1	1
10	LPIN	Lower Pin Distortion Adj	0 - 63	32	34	80	PDSO	PDS OFF	0 , 1	0	0	150	PBRT	PIP Y-OFF SET	0 - 31	25	25	187	PVLN	LINE_NUM	0 - 31	17	17
11	VSIZ	Vertical Size	0 - 63	32	21	81	CK	-	0 , 1	0	0	151	PVP1	-	0 , 1	0	1	188	PVSB	STB_DLY	0 - 255	64	64
12	VPOS	Vertical Position	0 - 63	30	41	82	VNL	-	0 - 15	3	3	152	PUP1	-	0 , 1	0	2	189	PVLV	L_LEVEL	0 -255	130	130
13	VLIN	Vertical Linearity	0 - 15	3	4	83	HPK	HPK	0 , 1	0	0	153	PVP2	-	0 - 3	0	4	190	SBAL	Sub Balance	0 - 15	5	5
14	SCOR	Vertical Correction	0 - 15	6	8	84	HPKO (2)	HPK OFF	0 , 1	0	0	154	PUP2	-	0 - 3	0	5	191	SBAS	Sub Bass	0 - 7	0	0
15	VZOM	16:9 CRT Z Mode	0 , 1	0	0	85	CORE	CORE	0 - 3	1	1	155	PVP3	-	0 - 3	0	0	192	STRE	Sub Treble	0 - 7	3	3
16	EHT	Vertical Hi-Volt Correction	0 - 15	5	5	86	TRAP	-	0 , 1	1	1	156	PUP3	-	0 - 3	0	0	193	BBEL	BBE Low	0 - 15	5	5
17	ASP	Aspect Ratio Control	0 - 63	47	47	87	CHTR	-	0 , 1	0	0	157	PACS	Set_AGC	0 , 1	1	1	194	BBEH	BBE High	0 - 15	5	5
18	SCRL	16:9 CRT Z ModeTran Scr	0 - 63	31	31	88	CBPF	-	0 , 1	1	1	158	PSDL	Sync Delay	0 - 3	0	0	195	BBE	BBE	0 , 1	1	1
19	HBLK	Horiz Blanking On/Off	0 , 1	1	1	89	ENHO	ENH OFF	0 , 1	0	0	159	PDCO	-	0 - 3	0	0	196	AUX	SRS, Simulated	0 - 3	0	0
20	LBLK	Left Screen HBLK Control	0 - 15	13	13	90	NMRD	-	0 - 3	0	0	160	PCGA	C_Gain	0 , 1	1	1	197	DISP	OSD Position	0 - 127	20	32
21	RBLK	Right Screen HBLK Control	0 - 15	8	8	91	YAPS	-	0 - 3	3	3	161	PAAF	-	0 , 1	0	0	198	HCLW	Horiz Count Lower Limit	0 - 255	16	16
22	HDW	Horiz Drive Pulse Width	0 , 1	1	1	92	CLKS	-	0 - 3	0	0	162	PSU2	-	0 , 1	0	0	199	HCHG	Horiz Count High Limit	0 - 255	64	64
23	EWDC	Parabola EW/DC Adjust	0 , 1	0	0	93	NSTD	-	0 - 3	0	0	163	PCVF	-	0 , 1	0	0						
24	LVLN	Bottom Vert Linearity	0 - 15	0	0	94	MSS	-	0 - 3	0	0	164	PBIT	-	0 , 1	0	0						
25	UVLN	Top Vert Linearity	0 - 15	0	0	95	KILS	-	0 - 3	1	1	165	PAFC	-	0 , 1	0	0	200	ID-0 (1)	Model Id	0 - 255	17	17
26	INTL	INTERLACE	0 - 3	0	0	96	ADIN	-	0 , 1	0	0	166	PACC	PIP ACC Level	0 - 63	22	22	201	ID-1 (1)	Model Id	0 - 255	31	31
27	G2SW	-	0 , 1	0	0	97	EXCS	-	0 - 3	1	1	167	PBUR	Burst CLK	0 , 1	0	0	202	ID-2 (1)	Model Id	0 - 255	223	223
28	G2LV	-	0 - 7	0	0	98	CPP	-	0 - 3	2	2	168	PEVE	-	0 , 1	0	0	203	ID-3 (1)	Model Id	0 - 255	130	130
29	HOSC	Horizontal VCO Osc. Freq.	0 - 15	7	12	99	HDP	-	0 - 7	4	4	169	PINW	-	0 , 1	0	0	204	ID-4 (1)	Model Id	0 - 255	233	233
30	VSS	Vertical Sync Slice Level	0 - 3	0	0	100	CDL	-	0 - 7	4	4	170	PINR	-	0 , 1	0	0	205	ID-5 (1)	Model Id	0 - 255	19	19
31	HSS	Horizontal Sync Slice Level	0 , 1	0	0	101	DYCR	DYCOR	0 - 15	2	2	171	PREF	-	0 , 1	0	0	206	ID-6 (1)	Model Id	0 - 255	0	0
32	HMSK	-	0 , 1	0	0	102	DYGN	DYGAIN	0 - 15	10	10	172	PARE	-	0 , 1	1	1						
33	VTMS	Select Signal VTIM Pin	0 - 3	0	0	103	DCCR	DCCOR	0 - 15	3	3	173	PAVE	-	0 , 1	0	0						
34	CDMD	Vertical Countdown	0 - 3	0	0	104	DCGN	DCGAIN	0 - 15	6	6	174	PFRA	Free Run Adjust	0 - 15	0	0						
35	AFC	AFC Loop Gain	0 - 3	0	0	105	YNRL	YNRLIM	0 - 3	1	1	175	PPAL	Sub Palm Judge	0 - 255	0	0						
36	FIFR	Field Frequency	0 - 3	3	3	106	CNRL	CNRLIM	0 - 3	1	1	176	PHPO	-	0 - 31	7	8						
37	VBLK	Vertical Blanking On/Off	0 - 3	0	0	107	WSC	-	0 - 3	1	1	177	PVPO	-	0 - 31	22	22						
38	REFP	Reference Pulse Position	0 , 1	0	0	108	VTRH	-	0 - 3	1	1												
39	JPSW	Jump SW	0 , 1	0	0	109	VTRR	-	0 - 3	1	1												
40	RDRV	Red Drive	0 - 63	31	31	110	LDSR	-	0 - 3	2	2												
41	GDRV	Green Drive	0 - 63	22	25	111	VAPG	VAPGAIN	0 - 7	3	3												
42	BDRV	Blue Drive	0 - 63	21	17	112	VAPI	VAPINV	0 - 31	6	6												
43	RCUT	Red Cutoff	0 - 63	31	31	113	TEST	TEST	0 , 1	0	0												
44	GCUT	Green Cutoff	0 - 63	13	9	114	YPFT	-	0 - 3	3	3												
45	BCUT	Blue Cutoff	0 - 63	14	11	115	YPFG	-	0 - 15	7	7												
46	SCON	Sub Contrast	0 - 15	11	9	116	CC3N	-	0 , 1	0	0												
47	SHUE	Sub Hue	0 - 31	17	16	117	SELD	-	0 , 1	1	1												
48	SCOL	Sub Color	0 - 31	17	18	118	D2GN	-	0 - 7	5	5												
49	SBRT	Sub Brightness	0 - 31	15	16	119	YHCR	YHCOR	0 - 3	0	0												
50	CHUE	Sub Hue (RF)	0 - 31	6	6	120	YPFC	YPFCOR	0 , 1	0	0												
51	CCOL	Sub Color (RF)	0 - 31	7	4	121	SHT	-	0 - 3	0	0												

NOTE: 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.

(1) When replacing IC002, set to on set value for each model.  
(2) Palette mode controls this register.

SCHEMATIC COMPONENT LOCATION GUIDE

C003	B12	C307	C50	C395	B17	C529	D19	C646	A28	D003	E38	D611	C28	FB609	B29	L351	D52	Q601	B27	R032	E36	R253	C33	R343	B21	R429	D41	R541	D15	R637	A28	R818	A62	R911	A68
C006	B34	C308	E51	C396	C32	C530	D19	C647	B28	D004	B37	D612	E28	FB610	A30	L410	C32	Q602	C25	R033	E36	R256	C33	R345	C21	R430	C41	R543	D30	R638	C29	R819	E61	R912	A67
C009	B34	C309	E51	C397	D50	C531	E18	C648	A27	D005	A36	D613	C29	FL301	A51	L501	E21	Q603	C26	R034	E35	R257	D13	R346	A21	R431	D42	R544	D30	R639	C27	R820	E61	R913	A67
C010	B34	C310	D10	C398	D11	C533	E32	C652	C29	D006	A35	D614	C29	FL302	C52	L502	E15	Q604	B39	R035	E35	R258	D13	R347	C21	R433	D41	R545	D18	R640	C27	R821	E61	R914	B67
C011	C38	C311	D50	C402	C32	C534	D11	C654	A31	D075	E38	D615	A30	FL303	B53	L503	E15	Q605	D26	R036	A36	R259	D13	R349	A21	R436	A45	R546	D18	R641	C28	R822	E61	R915	A67
C012	D38	C313	D12	C403	C31	C535	E11	C655	A26	D201	C42	D616	B30	IC001	A37	L504	A31	Q606	D26	R037	C36	R260	C38	R351	A50	R437	A46	R547	E12	R642	B39	R823	E61	R916	A68
C015	E37	C314	D52	C404	D43	C536	E13	C657	B31	D202	C42	D617	D26	IC002	D30	L505	E15	Q607	E28	R038	D36	R261	D9	R352	E50	R438	A45	R548	E13	R643	C28	R824	E60	R917	B67
C016	E36	C315	C32	C405	D43	C537	D9	C658	C31	D203	C12	D618	D26	IC003	E34	L506	E15	Q608	E27	R039	E36	R262	C22	R353	E50	R439	B46	R549	E31	R644	C28	R825	E59	R918	B65
C017	D36	C316	D9	C406	D43	C539	D21	C659	A30	D204	C9	D619	E27	IC301	B13	L507	D18	Q609	B25	R040	D38	R263	B17	R354	A52	R440	D45	R550	E31	R645	C27	R826	C59	R919	B65
C019	D36	C317	D53	C407	D43	C540	A31	C699	A25	D205	C13	D620	C30	IC301	B18	L510	D17	Q700	B69	R041	A38	R267	D70	R355	C50	R441	D45	R551	D16	R646	C29	R827	D61	R920	C65
C020	D36	C318	C32	C408	E43	C541	D14	C701	E32	D206	C14	D622	D25	IC301	C11	L600	A27	Q701	A70	R042	C34	R268	D70	R356	B17	R442	D46	R553	A32	R648	B30	R828	D60	R921	B65
C021	E38	C319	B32	C409	D43	C542	E32	C702	B71	D208	B11	D623	D27	IC302	C51	L603	A30	Q801	D58	R043	A37	R269	E10	R357	B18	R445	E45	R554	D10	R649	C26	R829	D60	R922	B66
C022	D36	C320	B14	C410	D43	C543	C15	C703	E32	D209	E42	D624	D27	IC402	B46	L604	B31	Q802	D59	R044	E37	R273	C19	R358	C16	R446	E46	R555	D10	R650	B30	R831	B59	R923	A66
C027	D37	C321	B12	C411	D43	C546	E9	C704	D23	D210	E42	D625	D28	IC404	A43	L605	B27	Q803	D58	R045	E35	R275	C54	R359	C52	R447	E45	R556	D11	R651	C25	R832	B57	R2001	D34
C028	B37	C322	B13	C412	E43	C547	D12	C705	D32	D211	B18	D626	C28	IC501	D19	L701	D31	Q804	E58	R046	A38	R276	D9	R360	C16	R450	B42	R557	D11	R653	E28	R833	B57	R2002	D35
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C062	D30	C350	C50	C450	C42	C614	C25	C816	B61	D506	D21	D813	A60	J202	C11	Q310	C49	R004	E38	R087	C38	R315	C12	R386	D50	R511	E18	R607	E28	R709	B23	R860	B61	S2007	D34
C063	C36	C351	D51	C450	C42	C615	A29	C817	B61	D507	E20	D814	D57	J202	D41	Q349	A49	R006	B33	R088	C38	R316	D53	R387	B17	R512	D16	R608	D27	R710	C23	R862	A62	S2008	D34
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C076	B38	C355	D51	C502	E12	C619	C28	C823	A60	D511	D30	D2001	B34	J203	C41	Q354	D51	R010	C38	R094	C39	R320	D51	R394	A51	R517	C13	R612	D26	R714	D24	R866	A57	S4004	B33
C077	E38	C356	B19	C503	E12	C620	C28	C824	A60	D512	D19	D2002	A34	J205	C41	Q355	C52	R011	D38	R095	E38	R321	D52	R395	A50	R518	C14	R613	A26	R715	D23	R867	A59	S4005	B33
C091	B36	C357	C19	C504	E11	C621	A30	C825	A58	D513	E31	D2003	C12	J205	D41	Q356	C69	R012	B34	R096	D38	R322	D13	R396	C49	R519	D14	R614	D27	R716	C24	R868	A59	SW501	D16
C093	D38	C358	D12	C505	E16	C622	C30	C826	A58	D514	E31	D2004	B36	J206	A18	Q358	A52	R013	B36	R097	B35	R323	C13	R398	D9	R520	E21	R615	B26	R717	B24	R869	B59	SW502	D15
C097	D36	C359	B19	C506	D14	C623	B30	C862	D61	D515	D19	D2005	D35	J206	A18	Q359	A50	R014	B35	R099	B38	R324	B50	R399	D9	R521	D20	R616	D26	R719	A72	R870	A58	T501	E12
C099	B36	C360	B16	C507	E13	C624	A31	C901	C66	D516	D10	DY	C16	J206	B18	Q365	D13	R015	B36	R105	C10	R325	B17	R401	D47	R522	D20	R617	D26	R720	A69	R871	A60	T503	E14
C102	C9	C360	C56	C508	E13	C625	C31	C902	D66	D517	E9	DY	C67	J402	B41	Q368	D9	R016	D36	R107	A9	R326	D11	R402	D47	R523	E20	R618	B26	R721	B69	R872	D57	T504	E14
C104	B10	C361	B19	C509	E13	C626	B30	C903	D66	D518	E9	F601	A25	J402	C41	Q369	D54	R017	A35	R108	A9	R3													

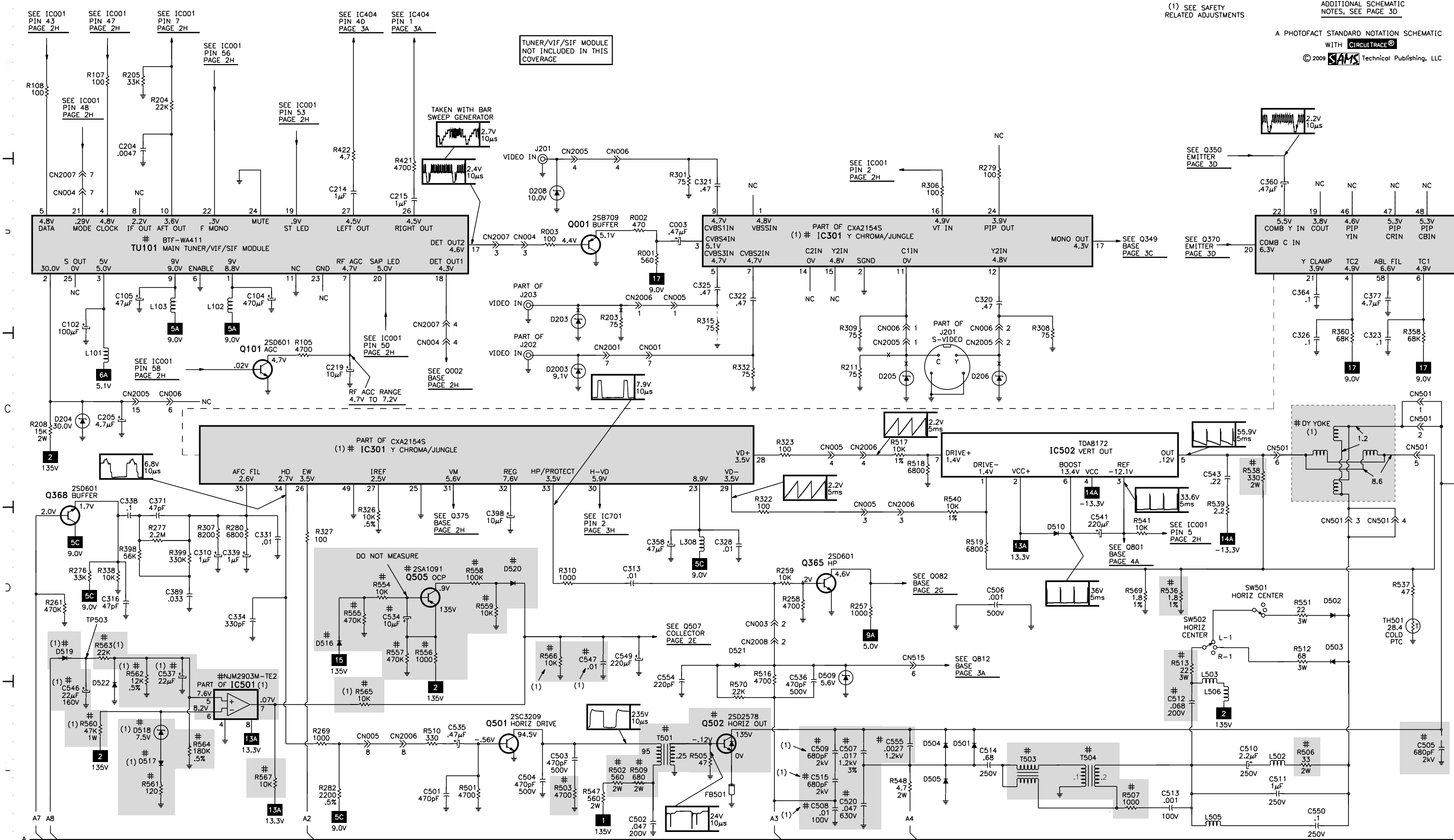
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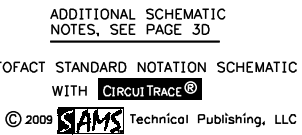
(1) SEE SAFETY  
RELATED ADJUSTMENTS

ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3D

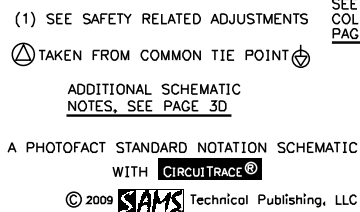
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## F





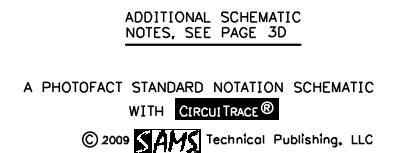
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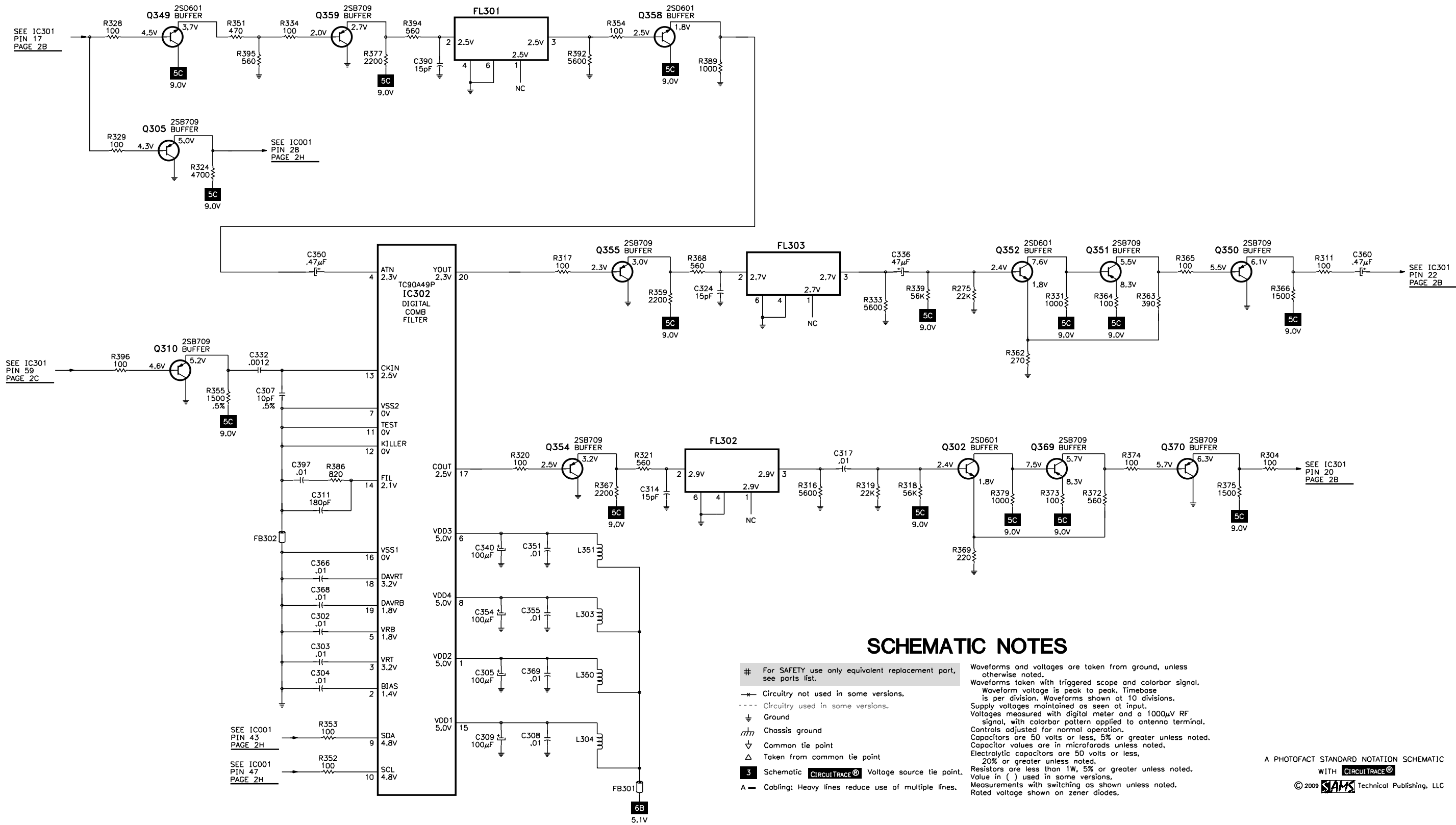
SET 5492 Page 2



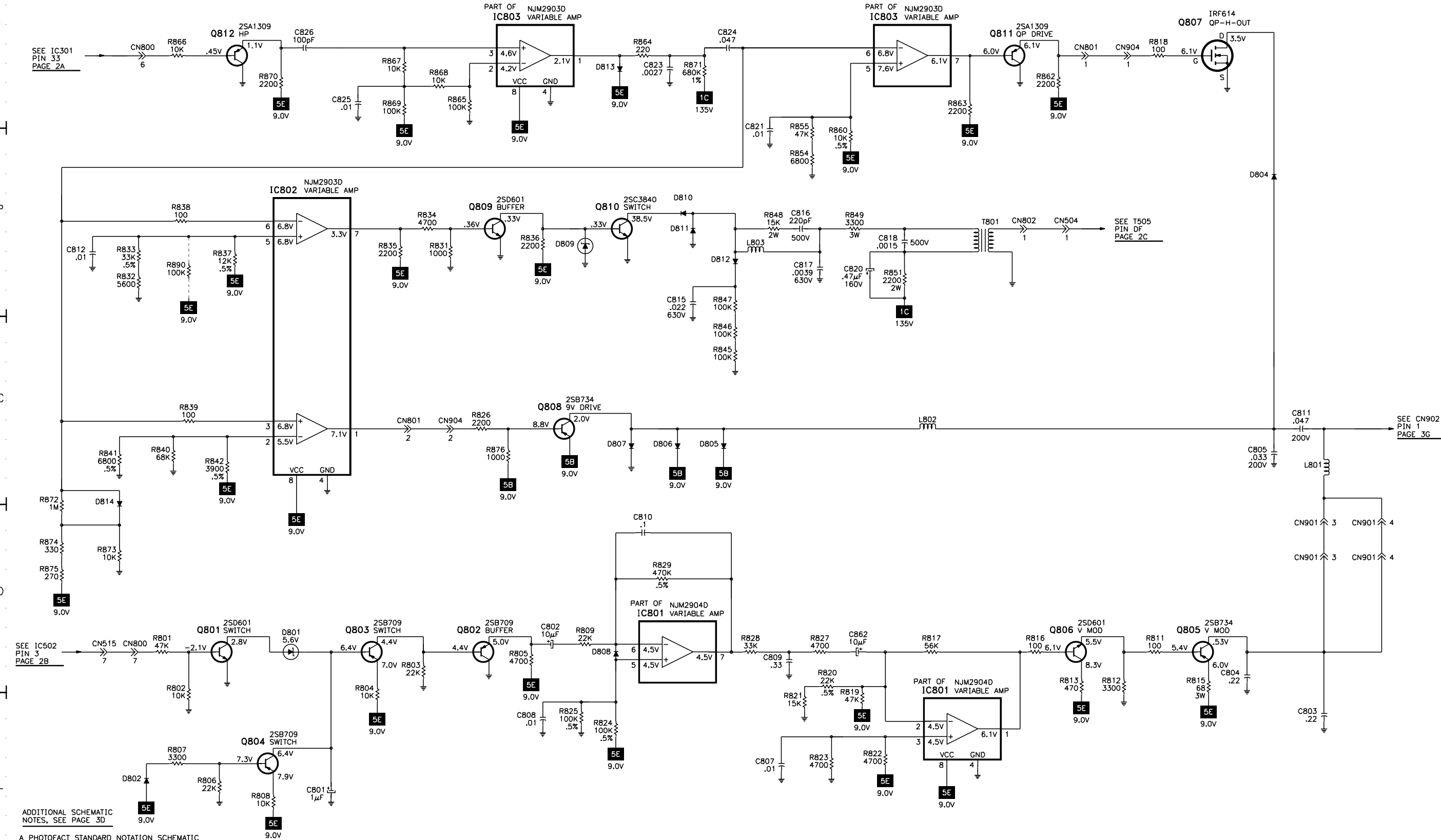
**A**



COMB FILTER SCHEMATIC



CONVERGENCE SCHEMATIC

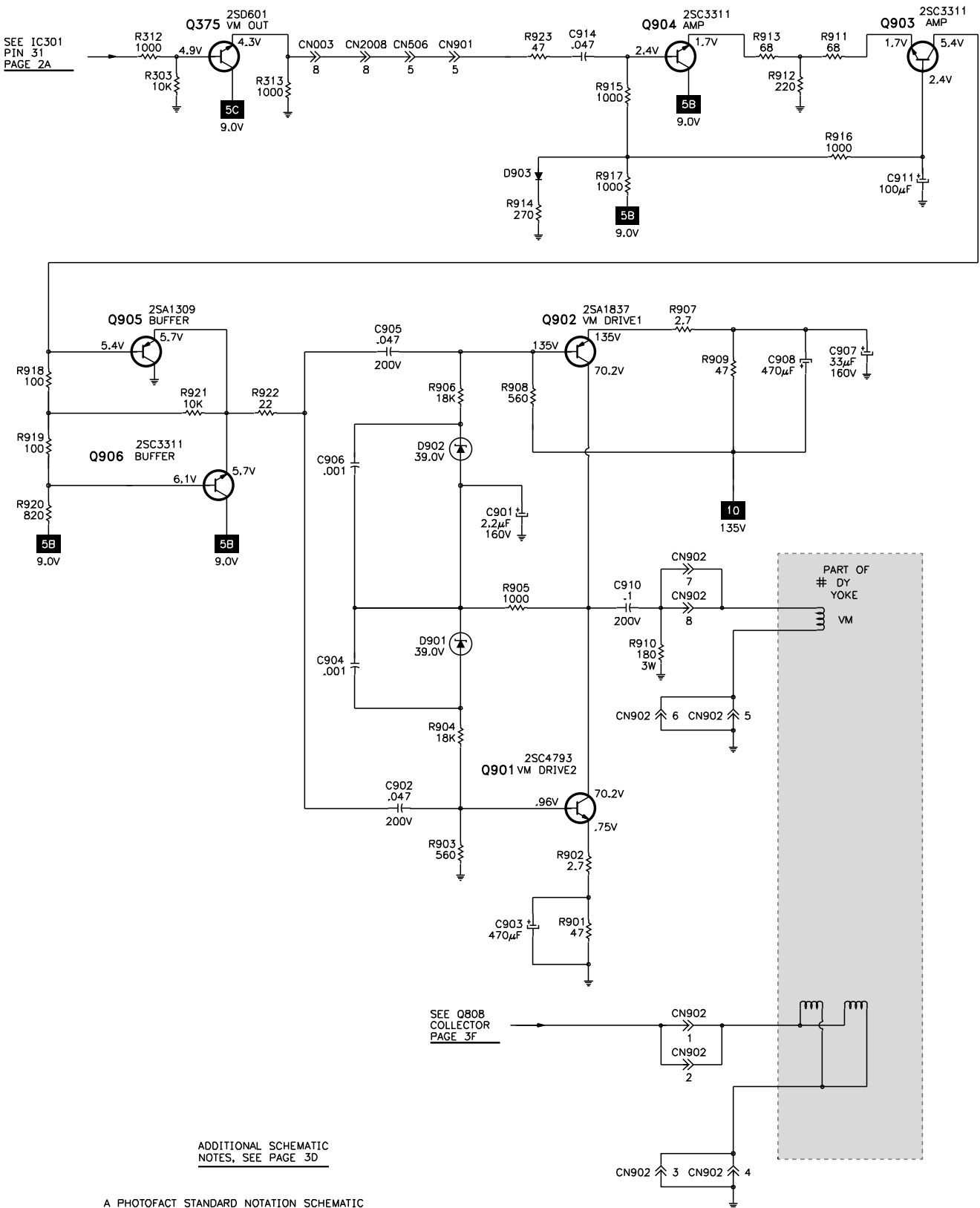


ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3D

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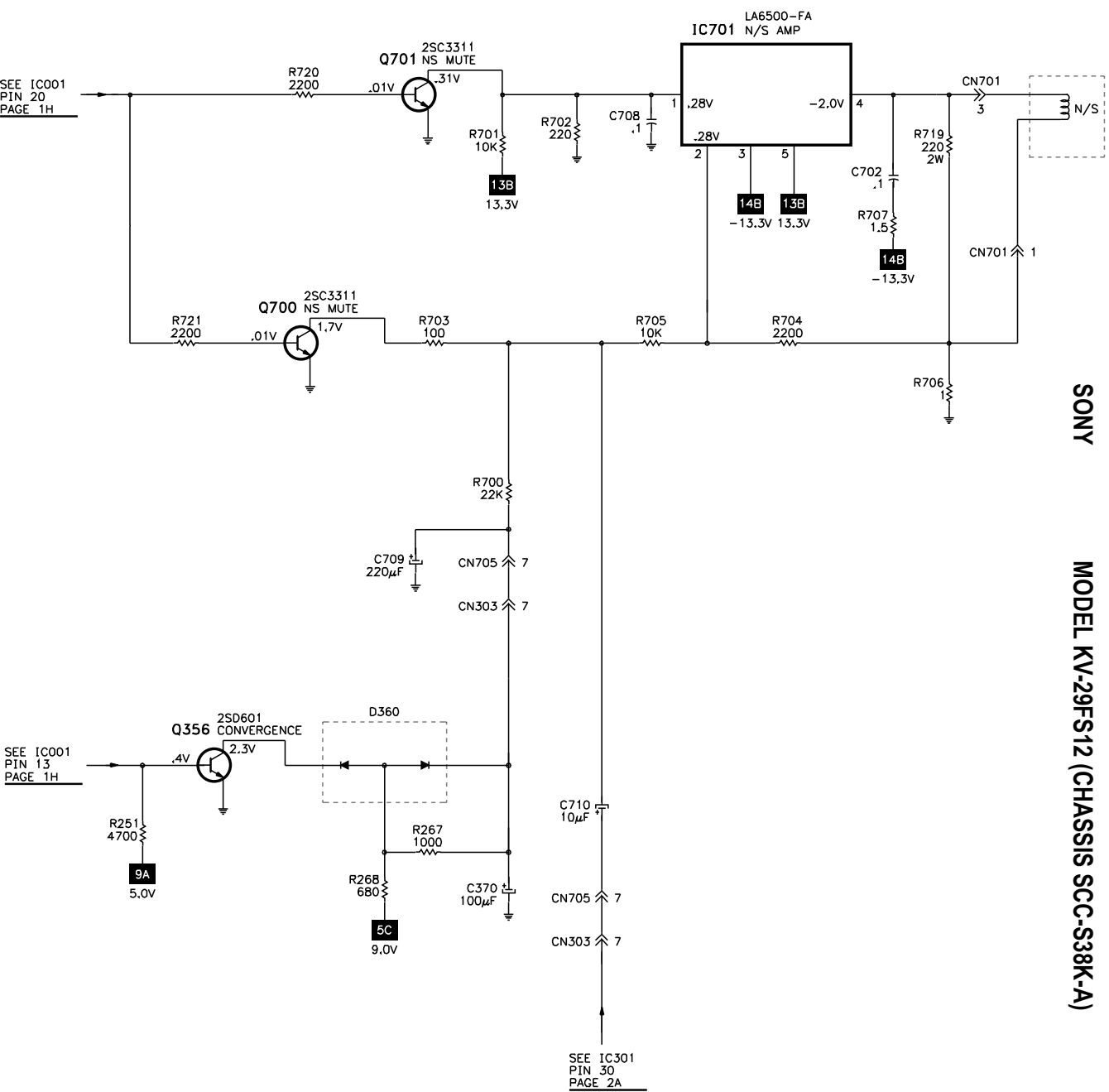
G  
VELOCITY MODULATOR SCHEMATIC



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 3D

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H  
N/S SCHEMATIC



ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2G

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SONY  
MODEL KV-29FS12 (CHASSIS SCC-S38K-A)

## SAFETY RELATED ADJUSTMENTS

### R564 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components: IC501, D517, D518, D519, C505, C509, C515, C537, C547, R560 thru R567, 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 TP503 or C546(+) is more than 21.0V.
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 100μA ± 100μA.
5. Confirm that the voltage at TP600 is 135V ± 1.5V.
6. Connect a voltmeter and a variable DC power supply to TP503 or C546(+) thru a 1SS119 diode. Increase the voltage supplied to TP503 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 1730μA ± 100μA with picture and brightness settings to maximum.
9. Repeat steps 6 and 7.
10. DC voltage should measure less than 24.78V 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 R564.

### B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

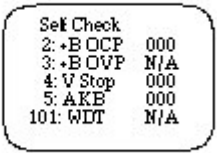
The following adjustment should always be performed when replacing IC601, or PH601.

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 136.5V.
8. If step 7 cannot be satisfied, replace IC601, or PH601, and repeat above steps until results are satisfactory.
9. Using buttons 3 and 6, adjust for 135V ± 3V.
10. Write into memory by pressing Mute button, then press Enter button.

### 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.

### ON SCREEN DISPLAY OF SELF DIAGNOSTIC FUNCTION



### ON SCREEN DISPLAY OF SELF DIAGNOSTIC FUNCTION

The on screen display of the self diagnostic function shows a list of the past failures detected. The 2, 3, 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 displayed as shown. 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.

### 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.	Q502 or IC702 shorted.
4	No vertical deflection.	Failure of IC502 or loss of 12.0V supply.
5	White balance failure.	Failure of IC502 or IC301. Screen control needs adjustment.

### 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.

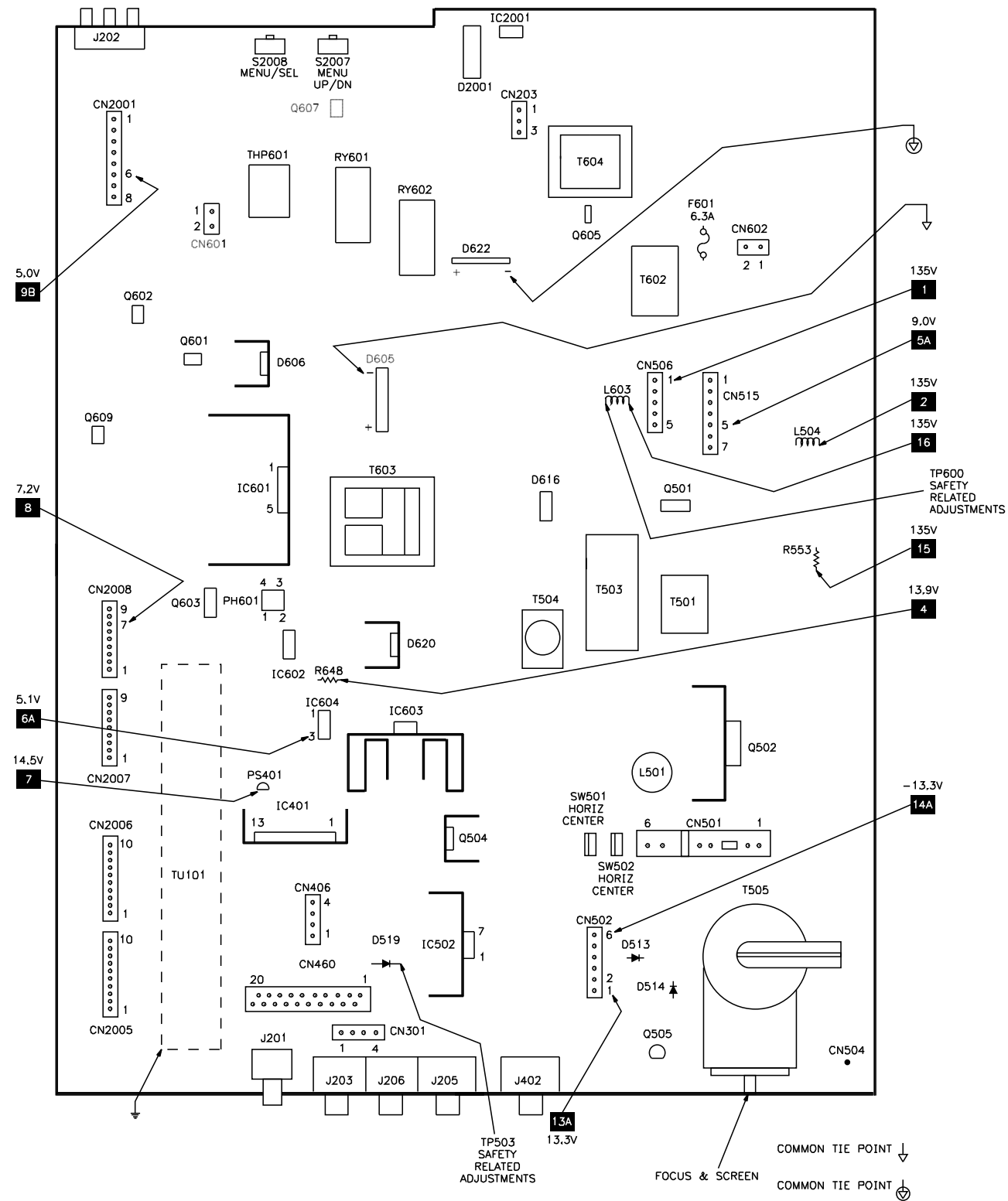
Equipment	Sencore No.	Equipment	Sencore No.
Oscilloscope	SC3100	Isolation Transformer	PR570
Generators		Capacitance Analyzer	LC102
RGB	CM2125	CRT Analyzer	CR7000
Multiburst Signal	VG91	AC Leakage Tester	PR570
Color Bar	VG91	Inductance Analyzer	LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	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

#### Important Parts Information

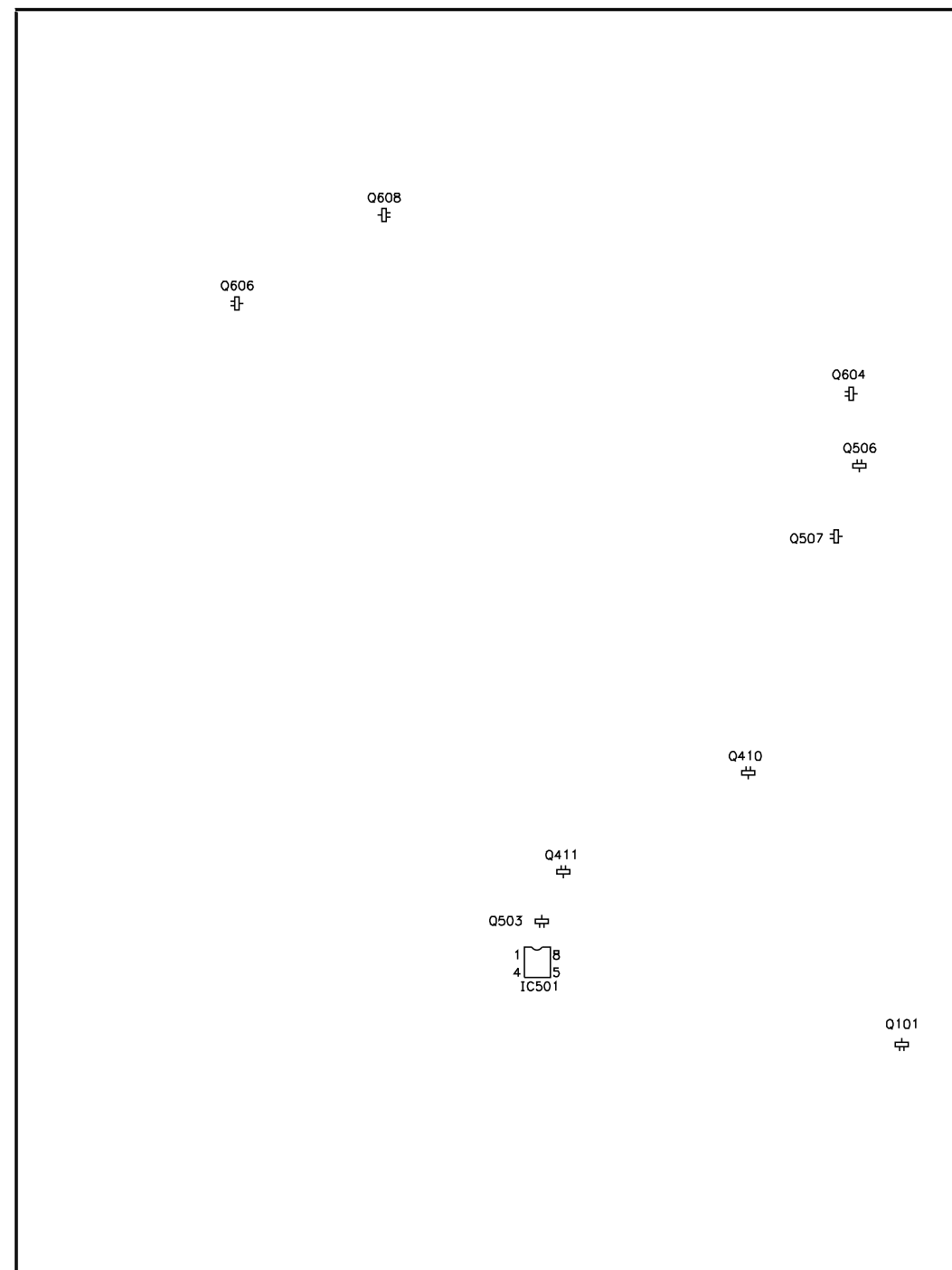
- **Parts not listed in the parts list are commonly available at your local electronics parts retailer.**
- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating 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.

## PLACEMENT CHART

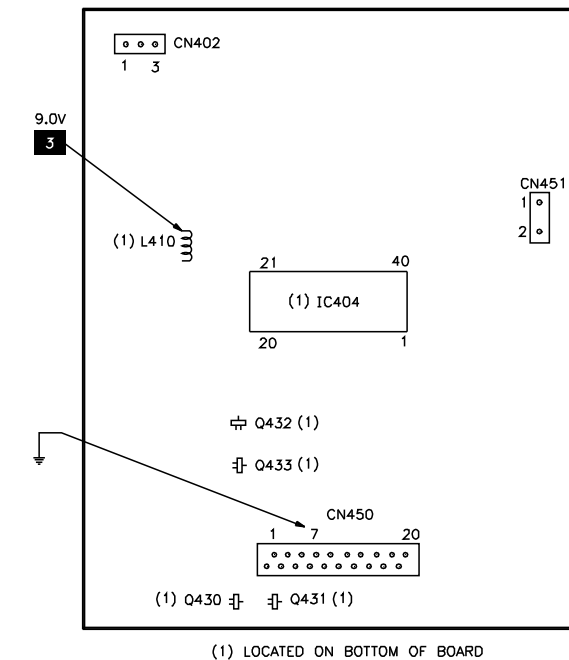
### A BOARD - TOP VIEW



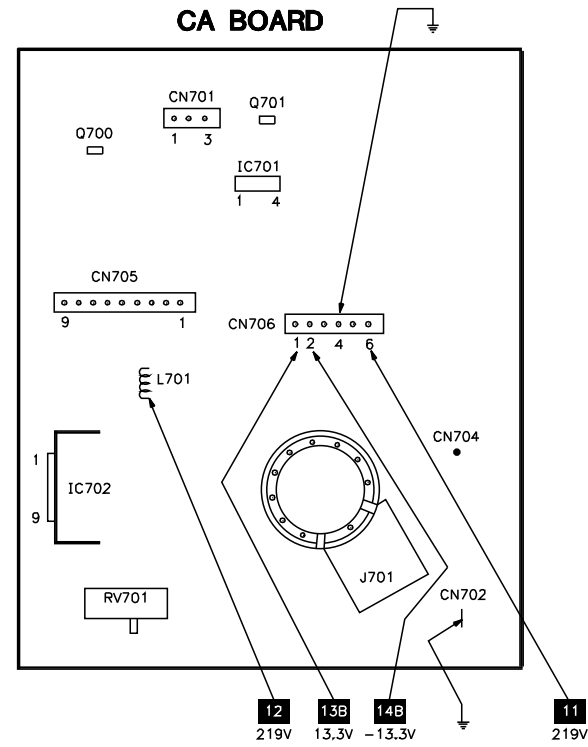
### A BOARD - BOTTOM VIEW



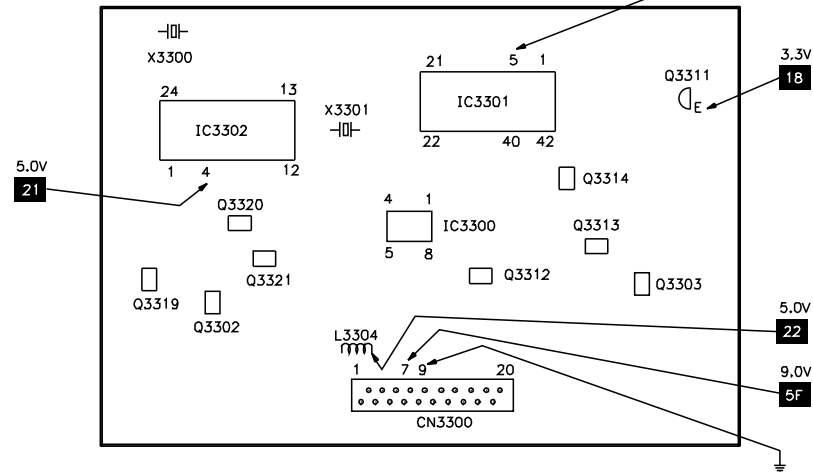
## K BOARD



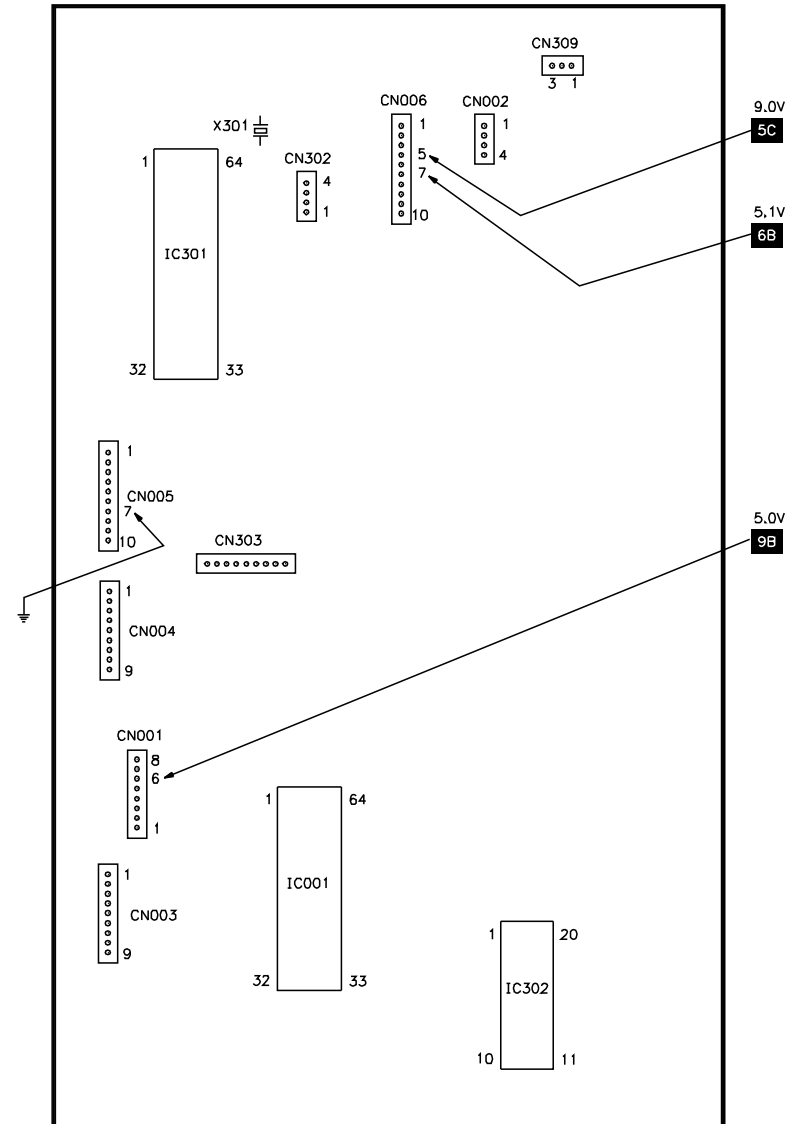
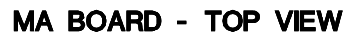
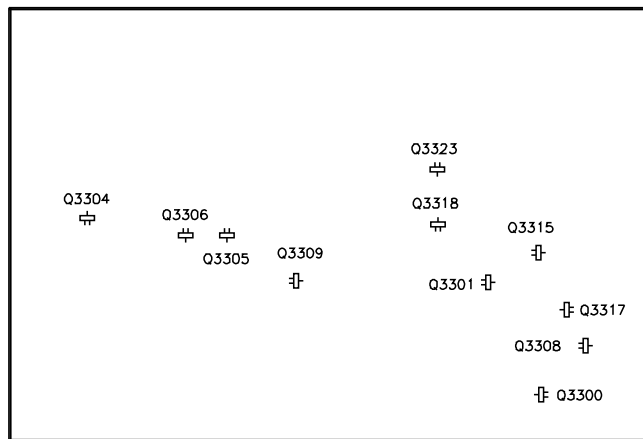
## PLACEMENT CHART continued



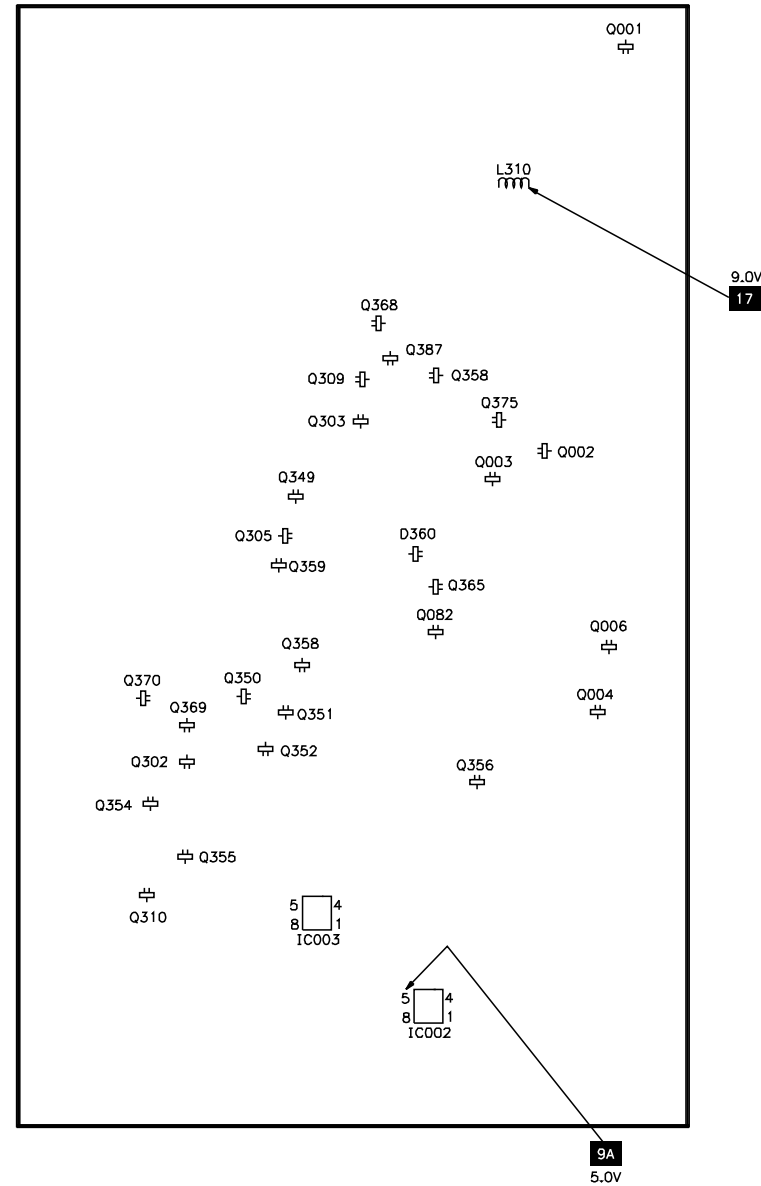
### P BOARD - TOP VIEW



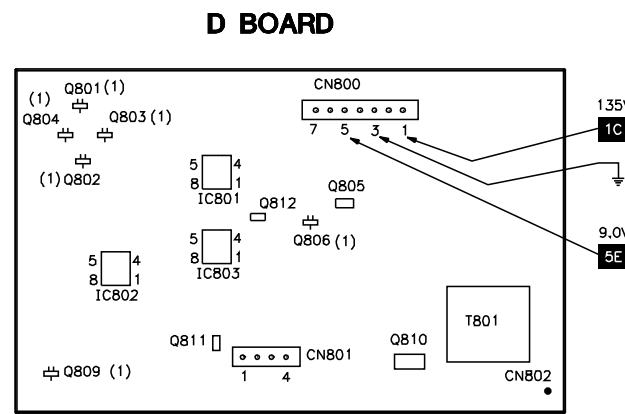
### P BOARD - BOTTOM VIEW



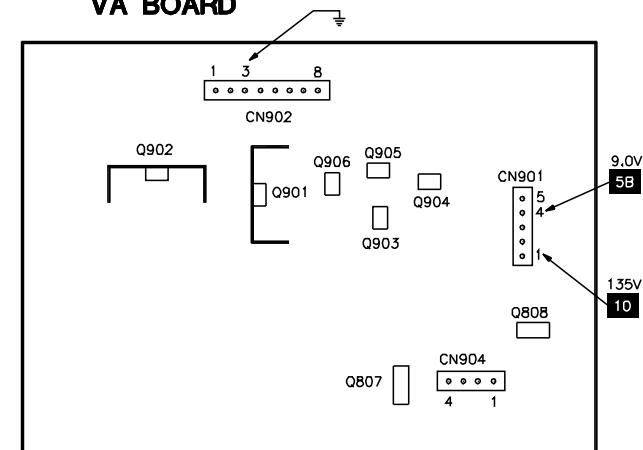
**MA BOARD - BOTTOM VIEW**



**VA BOARD**

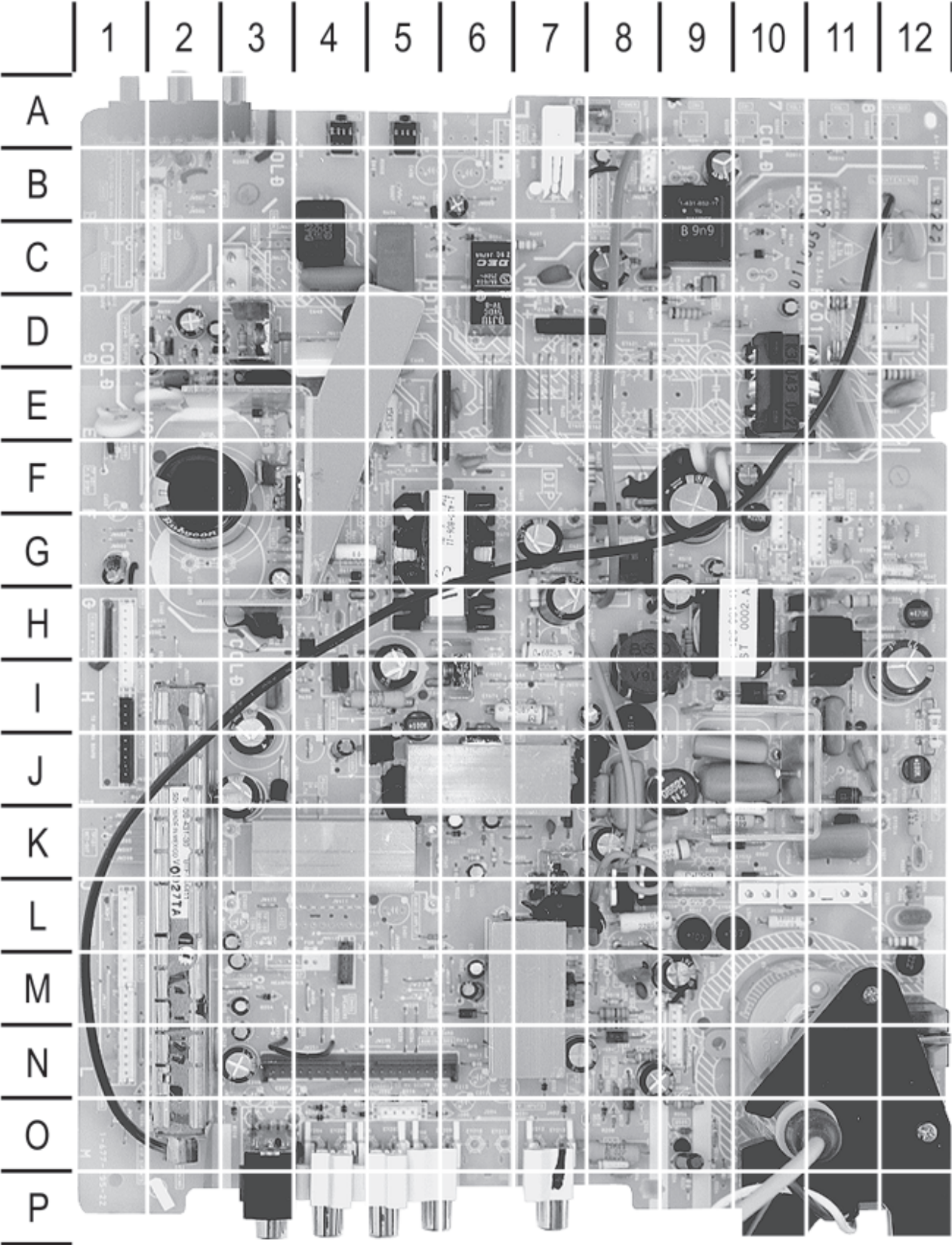


(1) LOCATED ON BOTTOM OF BOARD





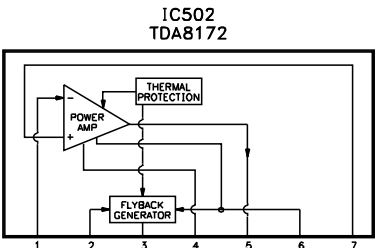
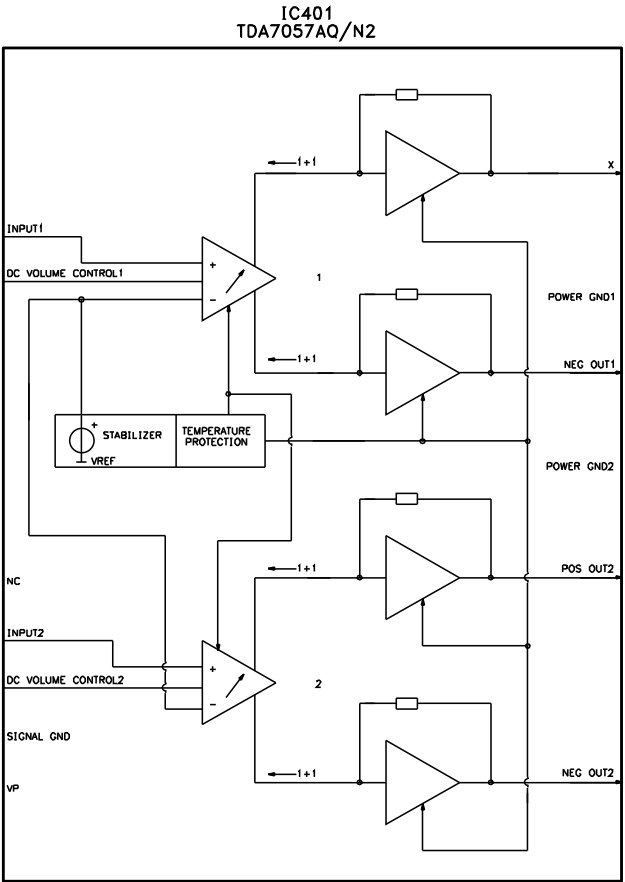
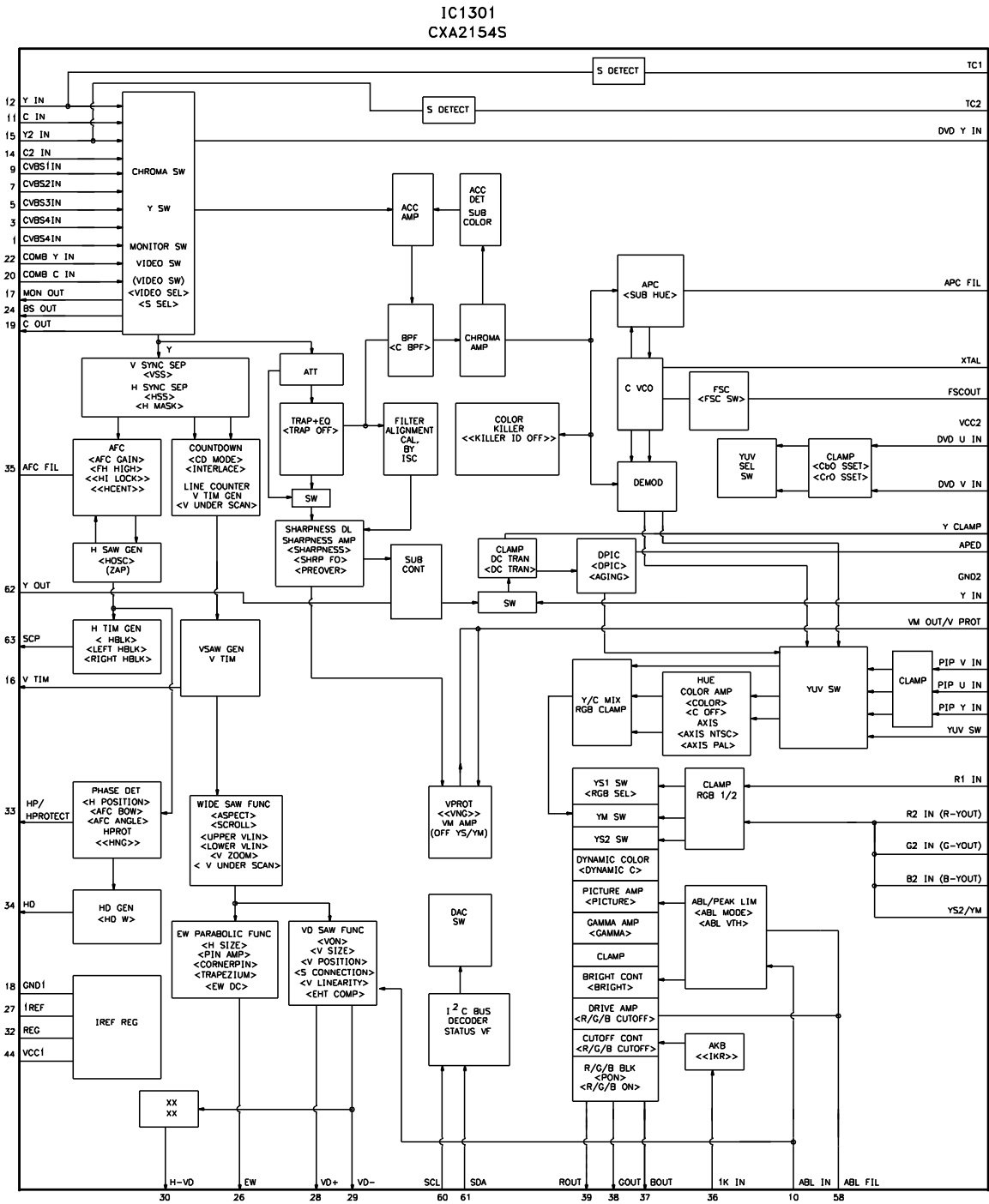
A BOARD - TOP VIEW



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A BOARD - GRIDTRACE LOCATION GUIDE													
C102	M3	C604*	C9	D205	O1	D2001	A7	Q606*	D9	R525*	K5	R624	E2
C104	N3	C606	F9	D206	O1	D2002	B9	Q607	B5	R526*	L5	R625	E2
C105	L3	C607	E6	D208	N2	D2003	A3	Q608*	B5	R528	L5	R626	G4
C204*	L2	C609	D2	D209*	N3	D2004	C1	Q609	F1	R529*	L5	R627	E5
C205	N3	C610	D2	D210	O3	D2005	C1	R105*	L2	R530*	L5	R630	B5
C210	B2	C611	F9	D211	O4	F601	D11	R107*	M2	R532	N8	R632	E3
C214*	J2	C612	F2	D212	B2	FB501	I11	R108*	M2	R533	K12	R633	F3
C215*	J2	C613	D2	D213	B2	FB502	L7	R201*	O4	R534	L12	R634*	H1
C216	B2	C614	E2	D214	O5	FB503	H8	R202*	O3	R535	P10	R635*	H1
C219	M3	C617	E4	D215	O4	FB600	F4	R203*	O4	R536	M8	R638	G5
C402	J3	C618	G3	D230	O5	FB601	F4	R204*	K2	R537	M8	R639	I4
C403	J4	C619	G3	D231	O5	FB602	F3	R205*	K2	R538	L10	R640	I4
C420*	K5	C620	G3	D232	N7	FB603	H4	R208	O8	R539	L7	R641	E4
C421*	M4	C621	G7	D233	O7	FB604	F8	R211*	O3	R540	M8	R642*	F1
C441*	I2	C622	I5	D401	K6	FB605	I5	R214*	O3	R541	K6	R643	H4
C442	K6	C623	G7	D501	J11	FB606	H8	R215*	O3	R543	M8	R644	H4
C501	H10	C624	F9	D502	K10	FB609	F4	R235*	A2	R544	M9	R645	G8
C502	H11	C625	J3	D503	K10	FB610	G8	R237*	A2	R545	L12	R646	H5
C503	G11	C626	H7	D504	K11	IC401	K4	R238*	A1	R546	L12	R648	I5
C504	H11	C627	I3	D505	I10	IC501*	L5	R239*	A1	R547	H12	R649	H3
C505	J11	C628	I6	D506	K7	IC502	M7	R411	N6	R548	K10	R650	I7
C506	P8	C630	E2	D507	K6	IC601	F3	R412*	O6	R549	N8	R651	D11
C507	K11	C631	E1	D508	L5	IC602	I4	R413*	O7	R550	O9	R653*	B5
C508	H11	C634	C8	D509	G11	IC603	J6	R414	N6	R551	K8	R655*	B5
C509	J11	C635*	C9	D510	M7	IC604	J5	R421	K1	R553	I12	R656	C5
C510	I8	C636	B9	D511	M9	IC2001	A8	R422	J1	R554	P9	R658	H7
C511	J8	C637*	C9	D512*	K6	J201	P3	R429*	O5	R555	P9	R659	H7
C512	M8	C638*	C9	D513	N8	J202	A2	R430*	N5	R556	O9	R660	E5
C513	I10	C639	D10	D514	O8	J203	P4	R431*	N4	R557	P9	R661*	F1
C514	J9	C641	C8	D515*	K6	J205	P5	R433*	O5	R558*	O8	R663*	F1
C515	J12	C643*	C9	D516	O9	J206	P5	R436*	K5	R559*	O8	R2001*	A5
C520	J9	C644	E6	D517	O8	J402	P7	R437*	K5	R560	O8	R2002*	A5
C521	K8	C645	E5	D518	O8	L101*	M2	R438*	L4	R561	N8	R2003	B5
C523	N7	C646	E5	D519	M6	L102*	M2	R439*	L5	R562*	L5	R2004*	A4
C524	K7	C647	F6	D520*	O7	L103*	L2	R440*	I2	R563	M6	R2011	B10
C525	L7	C648	C4	D521	G12	L501	J9	R441*	I2	R564*	L5	R2012	B9
C526	K6	C652	H4	D522*	L5	L502	J8	R442*	I2	R565	K5	R2013	B9
C527	K6	C654	F10	D601	C5	L503	L9	R445*	I5	R566*	J4	R2014	B11
C528*	L5	C655	E11	D602	C6	L504	H12	R446	K5	R567*	K5	RY601	C5
C529*	K6	C657	I5	D603	D2	L505	I8	R447*	K5	R568	K12	RY602	C6
C530*	L5	C658	I5	D604	D2	L506	L9	R454*	J5	R569	N8	S2007	A5
C531	L12	C659	G7	D605	E5	L507	M12	R501	H10	R570	G12	S2008	A4
C533	N8	C699	C12	D606	D3	L510	J12	R502	G12	R571*	G1	SW501	L8
C534	O9	C2001	B8	D607	E2	L603	G10	R503	G11	R572*	G1	SW502	L8
C535	G9	CN406	M4	D608	D2	L604	I5	R505	J11	R601	F7	T501	H11
C536	G12	CN460	N5	D610	E3	L605	D4	R506	J7	R602	C8	T503	H9
C537	M6	CN501	L11	D611	H4	PH601	H4	R507	H9	R603	C8	T504	I8
C539	K8	CN502	N9	D612	C5	PS401	J3	R508	I2	R607	C7	T505	O11
C540	H9	CN504	P12	D613	H4	Q101*	L2	R509	H11	R608	D9	T602	E10
C541	L6	CN506	F10	D614	G4	Q410*	I2	R510	G9	R609*	C9	T603	G5
C542	M6	CN515	F11	D615	G8	Q411*	I5	R511	O7	R610*	C10	T604	C9
C543	L8	CN601	C3	D616	G8	Q501	H10	R512	L9	R611*	C10	TH501	M8
C546	M6	CN602	D12	D617	C10	Q502	J10	R513	L8	R612*	C9	TH601	C7
C547*	J4	CN2001	B2	D618	B10	Q503*	K5	R514*	K6	R613	E12	THP601	C4
C548	I12	CN2003	B8	D619	C6	Q504	L7	R516	G11	R614	C10	TU101	M2
C549	G1	CN2005	N1	D620	I6	Q505	O9	R517	M7	R616	D9	VDR601	E12
C550	J8	CN2006	M1	D622	D7	Q506*	G1	R518	L7	R617*	D9		
C551	K12	CN2007	J1	D623	D8	Q507*	G1	R519	M8	R618	D2		
C553	M9	CN2008	I1	D624	B10	Q601	D2	R520	K10	R619	E2		
C554	G12	D201	O4	D625	C10	Q602	D2	R521	K6	R620	D2		
C555	I11	D202	O4	D626	B9	Q603	H3	R522	K6	R621	D4		
C601*	C5	D203	O4	D627	B10	Q604*	F1	R523*	K5	R622	D2		
C602	B6	D204	M3	D628	C10	Q605	C9	R524	G10	R623	D3		

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PARTS LIST

Item No.	Type No.	Mfr. Part No.	Notes	Item No.	Type No.	Mfr. Part No.	Notes
D001	UDZ-TE-17-5.1B	8-719-976-99	-	D624, 25	1SS133T-77	8-719-991-33	-
D002	MTZJ-T-77-10B	8-719-110-17	-	D626	D1NL20U-TA	8-719-063-70	-
D003	MA111-TX	8-719-073-01	-	D627	MTZJ-T-77-7100A	8-719-110-03	-
D004	UDZ-TE-17-5.1B	8-719-976-99	-	D628	D1N20R-TA	8-719-510-48	-
D005	MTZJ-T-77-5.6C	8-719-109-89	-	D701, 02, 03	1SS83TD	8-719-901-83	-
D006	UDZ-TE-17-9.1B	8-719-977-22	-	D704	RGP10GPKG23	8-719-302-43	-
D075	MA111-TX	8-719-073-01	-	D801	MTZJ-T-77-5.6C	8-719-109-89	-
D201	-	-	-	D802	1SS133T-77	8-719-991-33	-
D202	-	-	-	D804	RGP10GPKG23	8-719-302-43	-
D203	-	-	-	D805, 06	1SS133T-77	8-719-991-33	-
D204	MTZJ-T-77-30D	8-719-982-22	-	D807	ERA82-004TP5	8-719-210-21	-
D205	-	-	-	D808	1SS133T-77	8-719-991-33	-
D206	-	-	-	D809	MTZJ-T-77-15B	8-719-110-41	-
D208	MTZJ-T-77-10B	8-719-110-17	-	D810, 11	ERA38-06TP1	8-719-970-87	-
D209	UDZ-TE-17-9.1B	8-719-977-22	-	D812	ERB44-06TP1	8-719-300-33	-
D210	MTZJ-T-77-10B	8-719-110-17	-	D813, 14	1SS133T-77	8-719-991-33	-
D211	RD9.1EW-T1	8-719-108-12	-	D901, 02	MTZJ-T-77-39	8-719-110-88	-
D212, 13	MTZJ-T-77-10B	8-719-110-17	-	D903	1SS133T-77	8-719-991-33	-
D214, 15	RD9.1EW-T1	8-719-108-12	-	D2001	LNK0120022G	8-719-070-80	-
D230 Thru			-	D2002	MTZJ-77-10B	8-719-110-17	-
D233	RD9.1EW-T1	8-719-108-12	-	D2003	RD9.1EW-T1	8-719-108-12	-
D301	MTZJ-T-77-5.1C	8-719-921-44	-	D2004, 05	MTZJ-T-77-5.1C	8-719-921-44	-
D302, 03	1SS133T-77	8-719-991-33	-	D3301	MA111-TX	8-719-073-01	-
D305	MTZJ-77-5.1C	8-719-921-44	-	D3304	UDZ-TE-17-3.9B	8-719-422-12	-
D360	DAP202K-T-146	8-719-914-44	-	IC001	M37280MK-110SP	8-759-658-00	-
D401	MTZJ-T-77-10B	8-719-110-17	-	IC002	MM1476AF (TP)	8-759-663-29	-
D501	ERC06-15S	8-719-945-80	-	IC003	M24C16-MN6T	8-759-527-77	-
D502, 03	GP08DPKG23	8-719-908-03	-	# IC301	CXA2154S	8-752-094-98	-
D504	ERC06-15S	8-719-945-80	-	IC302	TC90A49P	8-759-655-75	-
D505	RU4AM-T3	8-719-312-10	-	IC402	TDA8580Q/N1	8-759-573-40	-
D506	RGP10GPKG3	8-719-302-43	-	IC404	NJW1130G-TE2	8-759-658-01	-
D507, 08	1SS133T-77	8-719-991-33	-	# IC501	NJM2903M-TE2	8-759-700-07	-
D509	MTZJ-T-77-5.6C	8-719-109-89	-	IC502	TDA8172	8-759-980-58	-
D510	GP08DPKG23	8-719-908-03	-	# IC601	STR-F6656	8-749-014-48	-
D511	RGP10GPKG3	8-719-302-43	-	# IC602	EA135-F12	8-749-016-47	-
D512	MA111-TX	8-719-073-01	-	IC603	PQ09RF21	8-759-198-03	-
D513, 14	RGP15GPKG23	8-719-979-85	-	IC604	NJM7805FA	8-759-701-75	-
D515	MA111-TX	8-719-073-01	-	IC701	LA6500-FA	8-759-803-42	-
# D516, 17	1SS133T-77	8-719-991-33	-	IC702	TDA6108JF/N1B	8-759-562-43	-
# D518	MTZJ-T-77-7100X	8-719-921-63	-	IC801	NJM2904D	8-759-700-42	-
# D519	EL1Z-V1	8-719-302-43	-	IC802, 03	NJM2903D	8-759-659-67	-
# D520	MA111-TX	8-719-073-01	-	IC2001	SBX3081-71	8-742-212-20	-
D521, 22	1SS133T-77	8-719-991-33	-	# PH601	PC123FY2	8-749-010-64	-
D601, 02	1SS133T-77	8-719-991-33	-	Q001	2SB709A-QRS-TX	8-729-216-22	-
D603	MTZJ-T-77-33B	8-719-982-26	-	Q002, 03	2SD601A-QRS-TX	8-729-422-27	-
D604	RGP02-17PKG23	8-719-028-72	-	Q004	2SB709A-QRS-TX	8-729-216-22	-
# D605	D4SB60L-F	8-719-510-53	-	Q006	2SB709A-QRS-TX	8-729-216-22	-
# D606	TF541M	8-719-108-18	-	Q082	2SD601A-QRS-TX	8-729-422-27	-
D607	1SS133T-77	8-719-991-33	-	Q101	2SD601A-QRS-TX	8-729-422-27	-
D608	MTZJ-T-77-20B	8-719-110-53	-	Q151	2SB709A-QRS-TX	8-729-216-22	-
D609	RU-1P	8-719-311-31	-	Q152	2SD601A-QRS-TX	8-729-422-27	-
D610	D1NS4-TA	8-719-510-02	-	Q302	2SD601A-QRS-TX	8-729-422-27	-
D611	D1NL20U-TA	8-719-063-70	-	Q303	2SB709A-QRS-TX	8-729-216-22	-
D612	MTZJ-T-77-10B	8-719-110-17	-	Q305	2SB709A-QRS-TX	8-729-216-22	-
D613, 14	D1NL20U-TA	8-719-063-70	-	Q310	2SB709A-QRS-TX	8-729-216-22	-
D615	RU4AM-T3	8-719-312-10	-	Q349	2SD601A-QRS-TX	8-729-422-27	-
D616	D5LC20U	8-719-510-37	-	Q350, 51	2SB709A-QRS-TX	8-729-216-22	-
D617	MTZJ-T-77-12C	8-719-110-31	-	Q352	2SD601A-QRS-TX	8-729-422-27	-
D618	1SS133T-77	8-719-991-33	-	Q354, 55	2SB709A-QRS-TX	8-729-216-22	-
D619	MTZJ-T-77-10B	8-719-110-17	-	Q356	2SD601A-QRS-TX	8-729-422-27	-
D620	D5LC20U	8-719-510-37	-	Q358	2SD601A-QRS-TX	8-729-422-27	-
D622	D2SB60A-F04	8-719-077-76	-	Q359	2SB709A-QRS-TX	8-729-216-22	-
D623	ERA22-08TP3	8-719-948-45	-	Q365	2SD601A-QRS-TX	8-729-422-27	-



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Item No.	Type No.	Mfr. Part No.	Notes
Q368	2SD601A-QRS-TX	8-729-422-27	-
Q369, 70	2SB709A-QRS-TX	8-729-216-22	-
Q375	2SD601A-QRS-TX	8-729-422-27	-
Q378	2SB709A-QRS-TX	8-729-216-22	-
Q379	2SA1309A-QRSTA	8-729-119-76	-
Q380	2SB709A-QRS-TX	8-729-216-22	-
Q387, 88, 89	2SB709A-QRS-TX	8-729-216-22	-
Q410	2SD601A-QRS-TX	8-729-422-27	-
Q411	2SB709A-QRS-TX	8-729-216-22	-
Q501	2SC3209LK-TP	8-729-140-50	-
# Q502	2SD2578-YB	8-729-046-07	-
Q503	2SD601A-QRS-TX	8-729-422-27	-
Q504	2SC4159-E	8-729-809-29	-
# Q505	2SA1091-O-TPE2	8-729-200-17	-
# Q506	2SD601A-QRS-TX	8-729-422-27	-
# Q507	2SB709A-QRS-TX	8-729-216-22	-
Q601	2SD2144S-TP-UVW	8-729-922-37	-
Q602	2SC3311A-QRSTA	8-729-423-33	-
Q603	2SA1309A-QRSTA	8-729-119-76	-
Q604	2SD601A-QRS-TX	8-729-422-27	-
# Q605	2SK2663	8-729-046-40	-
Q606	2SD601A-QRS-TX	8-729-422-27	-
Q607	2SD2144S-TP-UVW	8-729-922-37	-
Q608	2SD601A-QRS-TX	8-729-422-27	-
Q609	2SC3311A-QRSTA	8-729-423-33	-
Q700, 01	2SC3311A-QRSTA	8-729-423-33	-
Q801	2SD601A-QRS-TX	8-729-422-27	-
Q802, 03, 04	2SB709A-QRS-TX	8-729-216-22	-
Q805	2SB734-T-34	8-729-140-97	-
Q806	2SD601A-QRS-TX	8-729-422-27	-
Q807	IRF614	8-729-931-45	-
Q808	2SB734-T-34	8-729-140-97	-
Q809	2SD601A-QRS-TX	8-729-422-27	-
Q810	2SC3840K	8-729-043-95	-
Q811, 12	2SA1309A-QRSTA	8-729-119-76	-
Q901	2SC4793	8-729-017-06	-
Q902	2SA1837	8-729-017-05	-
Q903, 04	2SC3311A-QRSTA	8-729-423-33	-
Q905	2SA1309A-QRSTA	8-729-119-76	-
Q906	2SC3311A-QRSTA	8-729-423-33	-
Item No.	Function/Rating	Mfr. Part No.	Notes
C307	10pF .5% 50V	1-163-227-11	-
# C505	680pF 10% 2kV	1-162-116-00	-
# C507	.017 3% 1.2kV	1-117-717-11	-
# C508	.01 10% 100V	1-137-150-11	-
# C509	680pF 10% 2kV	1-162-116-00	-
C511	1 μF 5% 250V	1-115-522-11	-
# C512	.68μF 10% 200V	1-106-387-00	-
# C515	680pF 10% 2kV	1-162-116-00	-
# C520	.047 5% 630V	1-129-722-00	-
# C534	10μF 20% 50V	1-126-964-11	-
# C537	22 μF 20% 50V	1-126-965-11	-
# C546	22 μF 20% 50V	1-126-965-11	-
# C547	.01 50V	1-163-031-11	-
# C551	.0047 10% 200V	1-137-417-11	-
# C555	.0027 3% 1.2kV	1-117-629-11	-
# C606	.0033 20% 250V	1-113-923-11	-
# C607	.47 20% 125V	1-136-311-11	-
# C611	.0033 20% 250V	1-113-923-11	-
# C612	560 μF 20% 400V	1-128-718-11	-
C616	220pF 5% 1kV	1-107-824-11	-
C617	680pF 3% 1.1kV	1-125-893-11	-

Item No.	Function/Rating	Mfr. Part No.	Notes
C621	.0015 10% 2kV	1-125-772-91	-
# C655	.47 20% 125V	1-136-311-11	-
C707	.0047 2kV	1-162-114-00	-
# DY	Yoke Horiz .9mH	8-451-494-31	-
	Vert 7.35mH	-	-
# F601	Fuse	1-532-506-51	6.3Amp, 250V, Fast Acting
FB001, 02	Ferrite Bead	1-414-234-22	-
FB301, 02	Ferrite Bead	1-412-911-11	-
FB501	Ferrite Bead	1-410-397-21	-
FB502, 03	Ferrite Bead	1-410-397-21	-
FB600	Ferrite Bead	1-412-911-11	-
FB601 Thru			-
FB610	Ferrite Bead	1-412-911-11	-
FL301	Filter	1-239-847-11	-
FL302	Filter	1-239-847-11	-
FL303	Filter	1-239-847-11	-
IC2001	Receiver	8-742-212-20	Remote (SBX3081-71)
J201	Terminal	1-794-119-11	Block
J202	Jack	1-794-267-11	Assembly
J203	Jack	1-794-118-11	Assembly
J205	Jack	1-794-116-11	Assembly
J206	Jack	1-794-117-11	Assembly
J402	Jack	1-794-116-11	Assembly
J701	Socket	1-451-470-21	CRT
L002, 03	100μH	1-414-273-11	-
L040	2.7μH	1-408-963-11	-
L101	10μH	1-412-029-11	-
L102	100μH	1-412-032-11	-
L103	10μH	1-412-029-11	-
L150	10μH	1-414-267-11	-
L151	100μH	1-414-273-11	-
L301	10μH	1-414-267-11	-
L302	47μH	1-414-271-11	-
L303	10μH	1-414-856-11	-
L304	10μH	1-414-856-11	-
L305	10μH	1-414-267-11	-
L308	100μH	1-414-273-11	-
L310	100μH	1-414-273-11	-
L350, 51	10μH	1-414-856-11	-
L410	47μH	1-414-271-11	-
L501	8mH	1-409-955-11	-
L502	2.2mH	1-412-552-11	-
L503	10mH	1-406-677-11	-
L504	47μH	1-412-533-21	-
L505	150μH	1-406-978-11	-
L506	10mH	1-406-677-11	-
L507	2.2mH	1-412-552-11	-
# L510	18μH	1-412-528-11	-
# L600	Degaussing	1-419-523-11	-
L603	22μH	1-412-529-11	-
L604	10μH	1-412-525-31	-
L605	22μH	1-412-529-11	-
L701	68μH	1-408-613-31	-
L801	10mH	1-406-989-21	-
L802	10mH	1-459-111-00	-
L803	10mH	1-406-677-11	-
L901	18mH	1-412-528-11	-
L3300	10μH	1-414-267-11	-
L3301	470μH	1-410-682-31	-
L3302, 03, 04	10μH	1-414-267-11	-
# P600	Line Cord (2)	1-790-315-21	AC, Polarized
# P600	Line Cord (3)	1-769-796-31	AC, Polarized
# PS401	Fuse Link	1-532-686-21	2.7A 150V

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes	Item No.	Function/Rating	Mfr. Part No.	Notes
R017	4700 .5% 1/10W	1-208-798-11	-	R658	.68 5% 3W	1-216-387-11	-
R056	4700 .5% 1/10W	1-208-798-11	-	# R660	5600 5% 3W	1-216-485-11	-
R092	4700 .5% 1/10W	1-208-798-11	-	# R662	5600 5% 3W	1-216-485-11	-
R208	15K 5% 3W	1-215-924-00	-	R820	22K .5% 1/10W	1-216-683-11	-
R281	4700 .5% 1/10W	1-208-798-11	-	R824, 25	100K .5% 1/10W	1-208-830-11	-
R282	2200 .5% 1/10W	1-208-790-11	-	R829	470K .5% 1/10W	1-208-846-11	-
R326	10K .5% 1/10W	1-208-806-11	-	R833	33K .5% 1/10W	1-216-687-11	-
# R502	560 5% 2W	1-216-455-21	-	R837	12K .5% 1/10W	1-208-808-11	-
# R503	4700 5% 1/4W	1-249-425-11	-	R841	6800 .5% 1/10W	1-208-802-11	-
# R506	33 5% 2W	1-215-883-11	-	R842	3900 .5% 1/10W	1-208-796-11	-
# R507	1000 5% 1/2W	1-260-328-11	-	R849	3300 5% 3W	1-215-920-11	-
# R509	680 5% 2W	1-215-891-11	-	R860	10K .5% 1/10W	1-208-806-11	-
R512	68 5% 3W	1-215-910-00	-	R871	680K 1% 1/4W	1-215-489-00	-
# R513	22 5% 3W	1-215-907-11	-	R910	180 5% 3W	1-216-476-11	-
R514	22K .5% 1/10W	1-216-683-11	-	RV701	110M VSTAT	1-241-656-11	-
R517	10K 1% 1/4W	1-215-445-00	-	# RY601	Relay	1-755-198-11	Degaussing
# R520	47 5% 2W	1-215-884-11	-	# RY602	Relay	1-755-266-11	Power
# R525	8200 .5% 1/10W	1-208-804-11	-	S2006	Switch	1-762-196-21	Power
R526	22K .5% 1/10W	1-208-814-91	-	S2007	Switch	1-762-816-21	Menu Up/Down
R528	2200 1% 1/4W	1-215-429-00	-	S2008	Switch	1-762-816-21	Menu Select
R532	4700 1% 1/4W	1-215-437-00	-	S4001	Switch	1-762-196-21	Volume -
R533	33K 1% 1/4W	1-215-457-00	-	S4002	Switch	1-762-196-21	Volume+
R534	36K 1% 1/4W	1-215-458-00	-	S4003	Switch	1-762-196-21	Channel -
# R536	1.8 1% 1/2W	1-214-798-21	-	S4004	Switch	1-762-196-21	Channel+
# R538	330 5% 2W	1-215-889-00	-	S4005	Switch	1-762-196-21	TV/Video
R540	10K 1% 1/4W	1-215-445-00	-	SP1, 2	Speaker	1-529-638-11	2 1/2 X 5 1/4, 8 Ohm, 6X12CM
# R546	.47 5% 1/4W	1-249-377-11	-	SW501	Switch	1-572-707-11	Horizontal Centering
# R547	560 5% 2W	1-216-455-21	-	SW502	Switch	1-572-707-11	Horizontal Centering
# R549, 50	.47 5% 1/2W	1-260-288-11	-	# T501	Horizontal Drive	1-437-195-11	-
# R551	22 5% 3W	1-215-907-11	-	# T503	PMT	1-426-981-11	-
# R553	.33 5% 200V	1-216-363-00	-	# T504	Horizontal Linearity	1-431-693-11	-
# R554	10K 5% 1/4W	1-249-429-11	-	# T505 (1)	Horizontal Output	1-453-310-11	-
# R555	470K 5% 1/4W	1-247-895-91	-	# T602	Line Filter	1-435-617-11	-
# R556	1000 5% 1/4W	1-249-417-11	-	# T603	Regulator	1-433-807-11	-
# R557	470K 5% 1/4W	1-247-895-91	-	# T604	Converter	1-431-852-11	-
# R558	100K 5% 1/10W	1-216-097-91	-	T801	Dynamic Focus	1-424-584-11	-
# R559	10K 5% 1/10W	1-216-073-00	-	TH501	Thermistor	1-800-193-00	-
# R560	47K 5% 1W	1-215-902-11	-	# TH601	Thermistor, NTC	1-803-586-11	-
# R561	120 5% 1/4W	1-249-406-11	-	# THP601	3.3 Cold PTC	1-803-540-11	-
# R562	12K .5% 1/10W	1-208-808-11	-	# TU101	Tuner	8-598-431-30	UHF/VHF, BTF-WA411
# R563	22K 5% 1/4W	1-247-863-91	-	# V701	CRT (2)	8-735-052-05	For Equatorial Area
# R564	180K .50% 1/10W	1-208-836-11	-	# V701	CRT (3)	8-735-041-05	A68LNH010X
# R565	10K 5% 1/4W	1-249-429-11	-	# VDR601	ENE621D-14A	1-803-976-11	-
# R566	10K 5% 1/10W	1-216-073-00	-	X001	Crystal	1-767-487-11	-
# R567	10K 5% 1/10W	1-216-073-00	-	X301	Crystal	1-567-505-11	-
# R568	22 5% 2W	1-215-882-00	-		F-Plug	1-766-374-11	-
R569	1.8 1% 1/2W	1-214-798-21	-		Fuse Holder	1-533-223-11	For F601 (2 Used)
# R602	4.7 5% 1/4W	1-249-389-11	-		Magnet	4-062-047-01	Convergence Correction
R603	470K 1% 1/4W	1-215-485-00	-		Magnet	1-452-032-00	Disc
# R613	2.2M 5% 1/2W	1-219-512-11	-		PC Board	A-1299-221-A	A
# R615	8.2M 5% 1W	1-218-265-11	-		PC Board	A-1332-063-A	CA
# R616	6.8 5% 1/2W Fusible	1-260-302-51	-		PC Board	A-1343-875-A	D
# R621	6.8 5% 10W Wire-wound	1-240-251-11	-		PC Board	A-1372-817-A	HX
# R623	470 5% 1/2W	1-260-324-11	-		PC Board	A-1380-627-A	K
# R624	10K 5% 1/4W	1-249-429-11	-		PC Board	A-1304-200-A	MA
# R626	.47 10% 1/2W Fusible	1-220-926-11	-		PC Board	A-1342-550-A	VA
R627	270K 1% 1/4W	1-215-479-00	-		Transmitter	1-418-387-11	Remote, RM-Y168
R631	100K 5% 3W	1-215-929-11	-		Wedge	4-053-005-01	Yoke Positioning (3 Used)
# R632	.22 5% 2W	1-216-361-21	-				
# R637	5600 5% 3W	1-216-485-11	-				
# R641	.27 5% 2W	1-216-362-11	-				
R648	33 5% 3W	1-215-908-00	-				
R650	.68 5% 3W	1-216-387-11	-				
				# For SAFETY use only equivalent replacement part.			
				(1) Screen and focus controls are part of T505.			
				(2) KV-29FS12			
				(3) KV-29FS12C			

SONY  
MODEL KV-29FS12 (CHASSIS SCC-S38K-A)