

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver ground and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering X-ray radiation. In solid-state receivers and monitors, the CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. Keep high voltage at rated value, NO HIGHER. Excessive high voltage may cause X-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, many electrical and mechanical components have safety related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

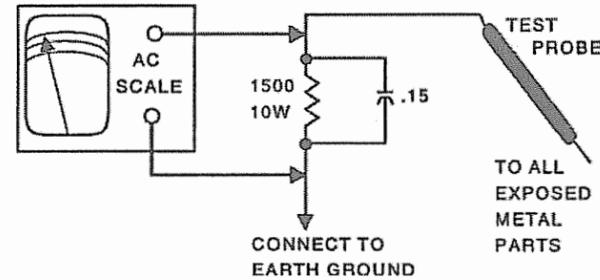
SAFETY CHECKS — FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

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

Hot Leakage Current Check

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



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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Page 1 SET 5181

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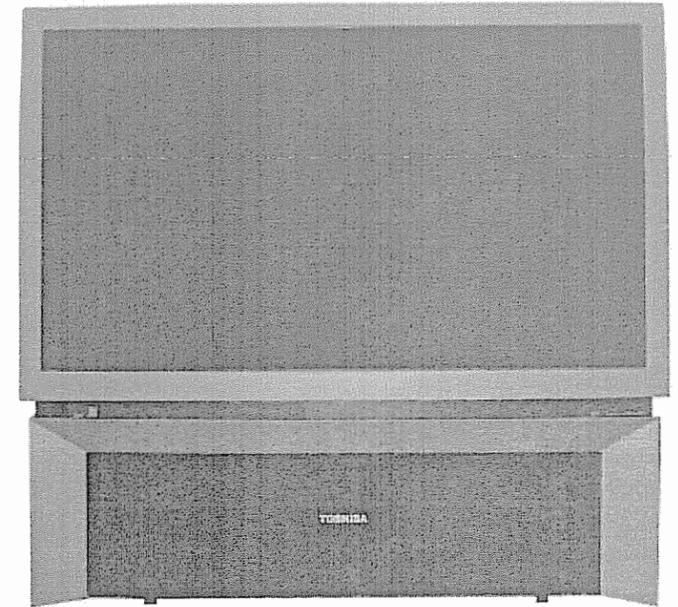


PHOTOFACT[®] Technical Service Data

HD

5181

TOSHIBA
Model 65H85C



SET 5181

MODEL 65H85C

TOSHIBA

INDEX

Important Parts Information	4
Miscellaneous Adjustments	1
Parts List	4
Placement Chart	1
Safety Precautions	1
Schematic Component Location	4
Schematic Notes	4
Schematics	
Audio	4
Back A/V	3
Convergence	3
Power Supply	3
Remote/Front Control	2
Television	2
Service Mode Adjustment Chart	1
Test Equipment	4
Tuner Information	1

Representative Model
Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list

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Visit www.samswebsite.com

SEPTEMBER 2006 SET 5181

TUNER INFORMATION

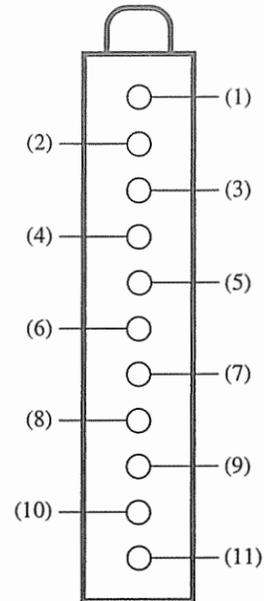
PLACEMENT CHART

MAIN TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
(1) AGC	3.8V	3.8V	3.8V
(2) VT	1.1V	4.4V	15.2V
(3) ADR	4.8V	4.8V	4.8V
(4) SCL	3.9V	3.8V	3.9V
(5) SDA	4.0V	4.0V	4.0V
(6) NC	0V	0V	0V
(7) 5V	4.8V	4.8V	4.8V
(8) NC	0V	0V	0V
(9) 32V	32.0V	32.0V	32.0V
(10) NC	.03V	0V	0V
(11) IF	0V	0V	0V

NOTE: VHF Low Band voltages taken on channel 2.
 VHF High Band voltages taken on channel 7.
 UHF Band voltages taken on channel 14.

MAIN TUNER TERMINAL GUIDE

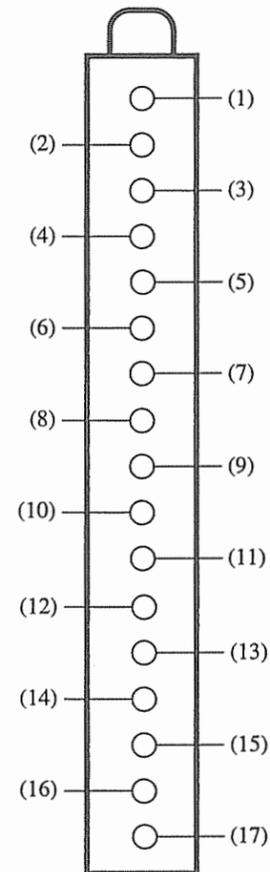


PIP TUNER VOLTAGE CHART

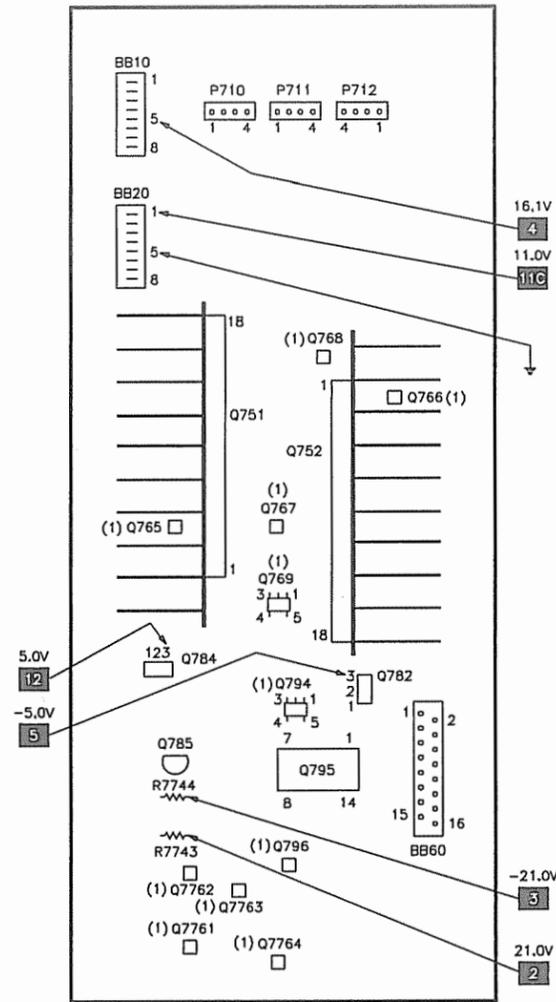
Pin	VHF Low Band	VHF High Band	UHF Band
(1) TV	0V	0V	0V
(2) NC	0V	0V	0V
(3) 5V	4.8V	4.8V	4.8V
(4) NC	0V	0V	0V
(5) NC (SW1)	0V	0V	0V
(6) NC (SW2)	0V	0V	0V
(7) VT	.89V	4.5V	12.0V
(8) RF AGC	3.9V	3.9V	3.9V
(9) IF OUT	0V	0V	0V
(10) SCL	3.9V	4.0V	3.9V
(11) SDA	4.1V	4.1V	4.2V
(12) AFT	4.5V	4.5V	4.5V
(13) MPX OUT	2.6V	2.6V	2.6V
(14) SIF OUT	0V	0V	0V
(15) 32V	32.0V	32.0V	32.0V
(16) NC	0V	0V	0V
(17) VIDEO OUT	2.6V	2.6V	2.2V

NOTE: VHF Low Band voltages taken on channel 2.
 VHF High Band voltages taken on channel 7.
 UHF Band voltages taken on channel 14.

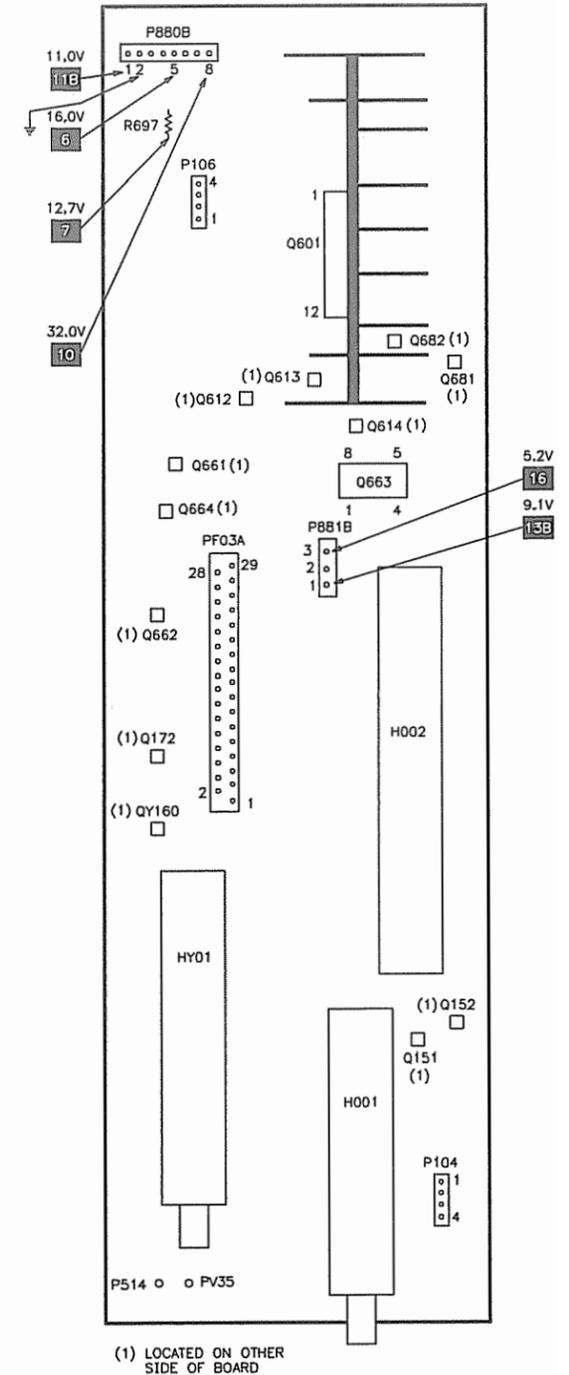
PIP TUNER TERMINAL GUIDE



CONVERGENCE BOARD

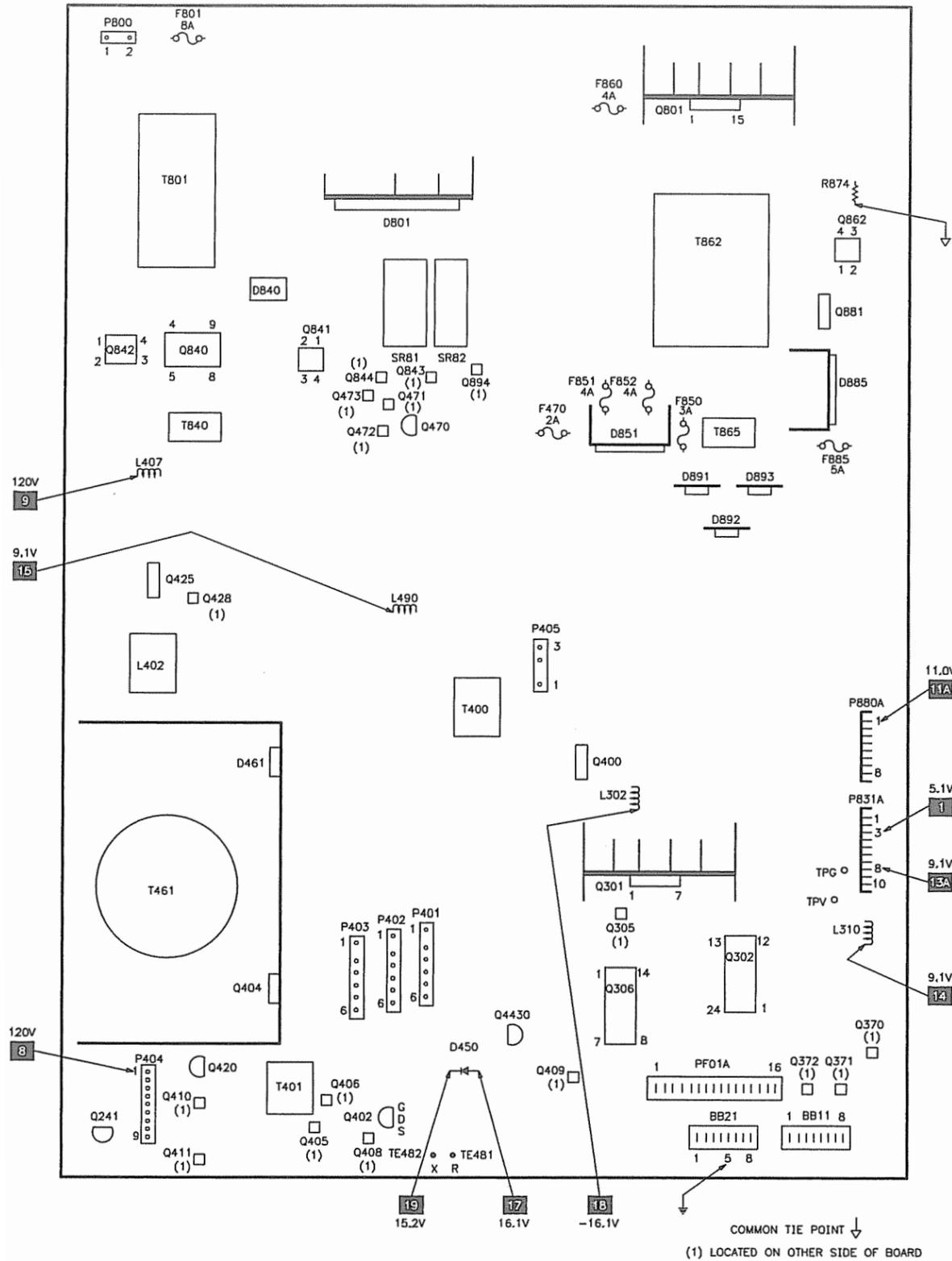


TUNER BOARD

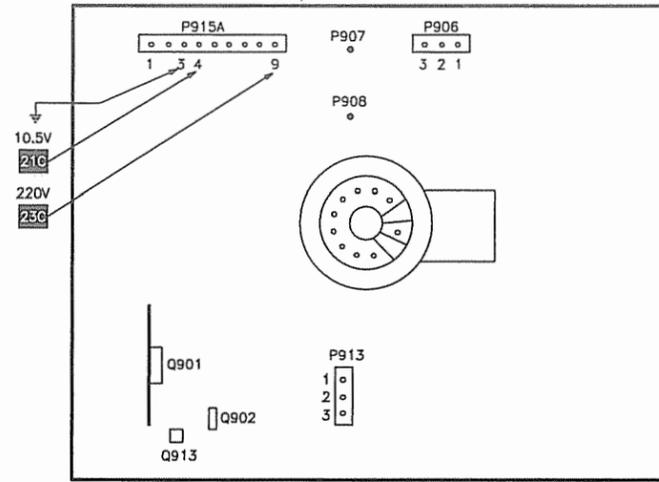


PLACEMENT CHART continued

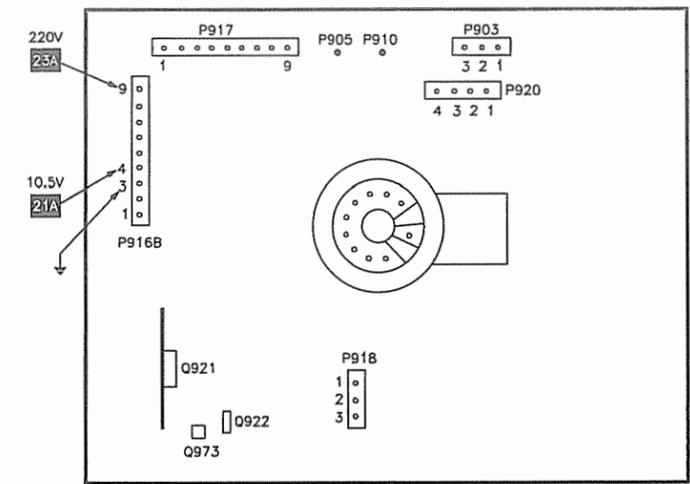
DEF/POWER BOARD



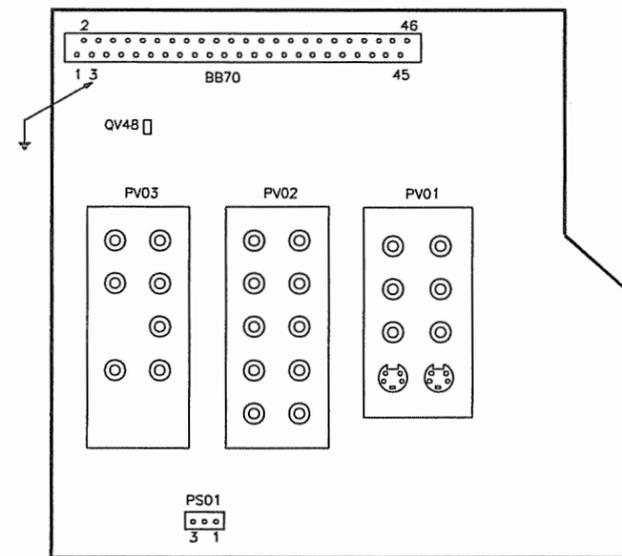
RED CRT BOARD



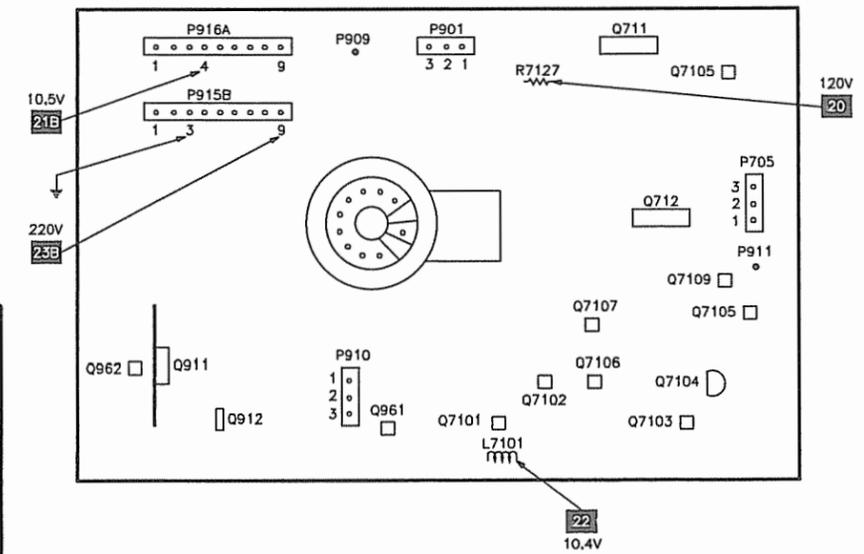
BLUE CRT BOARD



BACK A/V BOARD



GREEN CRT BOARD



MISCELLANEOUS ADJUSTMENTS

HIGH VOLTAGE CHECK

There is no high voltage adjustment on this chassis checking the high voltage should be done by using the following steps. Connect a high voltage probe to the anode of one of the CRTS. Turn on the receiver set the brightness and contrast to a minimum. High voltage should measure 32.8kV at zero beam current to a maximum of 33.9kV. Change the brightness from minimum to maximum and check that the voltages do not exceed these limits.

FAIL SAFE CIRCUIT CHECK

The fail safe circuit is checked in the following manner: turn the receiver on and temporarily short TE481R and TE482X on the deflection/power board with a jumper wire, the raster and sound should disappear. The receiver should remain in this state even after removing the jumper wire this is proof that the fail safe circuit is operating properly. To regain normal picture and sound turn the receiver off for 5 seconds then back on again.

ENTERING THE SERVICE MODE

To enter the Service Mode, press the mute button on the remote. Press the mute button again and keep pressing while simultaneously pressing the menu button on the receiver. The letter S will appear on the screen indicating that the receiver is in the Service Mode.

When in the Service Mode, press the menu button on the receiver to display the adjustment menu. To select the item to be adjusted, press the channel up or down button. To adjust the reference value, press the volume up or down button. To exit from the Service Mode, press the power button to turn off the receiver.

CONVERGENCE ADJUSTMENT

Receive an NTSC signal. Enter the Service Mode, press the 7 button to enter the internal convergence mode. An internal pattern will be displayed. Press the 9 button to display vertical stripes, press buttons 2, 8, 4, 6 to select a point, the 3 button to select the color and the 5 button to stop the cursor from blinking and to lock at that point. Then use the 2,8,4,6 button to adjust the convergence, repeat these steps until the entire convergence and geometry become fine. Press the 7 button to memorize the data. The message "PLEASE PUSH TOUCH FOCUS" will be displayed, press the touch focus located on the front panel. The touch focus calibration will begin and when finished a message of "CALIBRATION FINISHED" will be displayed, then a normal picture can be displayed. Push touch focus again and confirm the convergence does not change.

NOTE: if the message of "TOUCH FOCUS ERROR" is displayed, check the connection between the four sensors and the convergence unit or check the geometry of the internal net pattern, if the problem cannot be located it may be a hardware problem.

Button Function In The Convergence Mode

Load BACK UP DATA:	1 button
Up:	2 button
Select Green color:	3 button
Left:	4 button
Blinking of cursor ON/OFF:	5 button
Right:	6 button
Adjust mode ON/OFF:	7 button
Down:	8 button
Vertical stripe ON/OFF:	9 button
Erase Green line:	0 button
Erase Red line:	100 button
Erase Blue line:	ENT button

NOTE: The following messages will appear while pressing the 1 button.

ENTER:	TO LOAD BACKUP DATA
MUTE:	TO LOAD INTIAL DATA
EXIT:	TO EXIT

INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02 the following initialization is required. Enter the service mode and select any register item. Press and hold the recall button on the remote control, then press the channel up button on the TV.

CAUTION: Never attempt to initialize the data of QA02 unless it has been replaced.

SELF DIAGNOSTIC FUNCTION

Enter the Service Mode. Press the 9 button on the remote to check for proper execution of IC interfacing. The following is an explanation of what is displayed on screen:

Display	Explanation
[SELF CHECK] No. 23009980 POWER: 000	Self diagnostic function. Part number of QA01. Operation number of protecting circuit. 000 display is normal.
BUS LINE: OK	BUS line check. OK is normal. SCL-GND or NG SCL-GND indicates a short to ground of
BUS CONT: OK	the SCL or SDA signal or a short between SCL and SDA.
BLOCK: MAIN	Bus line acknowledge check. OK is normal. A location number is NG. NG QA02 indicates QA02 is bad. Green display is normal. Red display is NG.
SET ID : FF E2P VER: FF OPT1 : 08 OPTO2 :80 SW VER : PJ Jul 17 2004 00:11:19	MainMain sync SUB.....Sub sync (when PIP is on) ID code for TV set

HDMI
NO 40705181
ERR CODE : 00

ITEM BUTTONS

The following is a list of the buttons on the remote that will go to an item or perform a different function of the Service Mode:

1	RCUT	5	COLC
2	GCUT	6	TNTC
3	BCUT	8	Toggles audio test signal on and off.
4	SCNT	9	Self diagnostics

SUB BRIGHTNESS (BRTC)

Connect staircase bar pattern. Set contrast to minimum and brightness to mid-range. Enter the Service Mode. Select item BRTC and adjust reference value to the fifth bar.

CENTERING ADJUSTMENT

Stretch a string between the center of the screens top to bottom and from left to right. Input an NTSC signal enter the Service Mode. Then select convergence adjusting mode and by pressing the 7 button to display internal pattern. Move the cursor to the horizontal center line push the 9 button on the remote to display vertical stripes and adjust for horizontal center.

WHITE BALANCE (RED BIAS, GREEN BIAS, BLUE BIAS, RED DRIVE, BLUE DRIVE)

Using a generator adjust the white level to achieve 4.3cd/m2 on the dark area and 264.3cd/m2 on the bright area. Then using the up and down buttons cycle through the red drive, blue drive and red bias and blue bias, adjust the red drive and the blue drive for the bright area and the adjust red bias and blue bias for the dark area.

HIGH VOLTAGE BLOCK

When replacing the high voltage block transformer or the second anode leads to the high voltage block make sure the leads are straight, well centered and firmly in place.

SERVICE MODE ADJUSTMENT CHART

Item	Adjustment Name	Reference Value	On Set Value	Item	Adjustment Name	Reference Value	On Set Value
RCUT	Red Cutoff	80H	96H	E2ABL	-	-	10H
GCUT	Green Cutoff	-	80H	E2DTR	-	-	83H
BCUT	Blue Cutoff	80H	85H	ACBON	-	-	08H
RDRV	Red Drive	40H	21H	SHPX	-	-	7FH
BDRV	Blue Drive	40H	33H	SHPN	-	-	00H
BRTX	-	-	32H	DCTR1	-	-	E3H
BRTN	-	-	32H	DCTR2	-	-	6BH
COLX	-	-	7FH	DCTR3	-	-	7BH
COLN	-	-	00H	GAMMO	-	-	00H
TNTX	-	-	30H	GAMM1	-	-	42H
TNTN	-	-	10H	GAMM2	-	-	52H
SHPT	-	-	27H	GAMM3	-	-	5EH
APS	-	-	1DH	VSM1	-	-	E8H
UVTT	-	-	46H	VSM2	-	-	90H
WCTX	-	-	5AH	VSM3	-	-	9CH
WCTC	-	-	35H	BSON	-	-	26H
WCTN	-	-	00H	HPOS	-	-	49H
RGBB	RGB Bright	-	3FH	OPT1	-	-	08H
RGBC	-	-	80H	OPT2	-	-	80H
SCNT	Sub Contrast	-	0CH	TVOP	-	-	40H
CNTX	-	-	7FH	HIT	Picture Hit	30H	37H
BRTC	Bright Center	80H	89H	LIN	V Linearity	12H	12H
COLC	Color Center	5DH	5DH	VSC	VS Correction	29H	29H
CNTC	-	-	41H	VPOS	-	-	40H
CNTX	-	-	01H	VCP	V Compensation	06H	06H
ABL	-	-	08H	WID	Picture Width	4BH	48H
BS1	-	-	5BH	PARA	EW Parabola	0FH	0FH
R-Y	-	-	64H	CNR	EW M Correction	10H	10H
G-Y	-	-	56H	TRAP	Trapezium	40H	40H
COLTN	-	-	A4H	HCP	H Correction	00H	00H
COLOR	-	-	97H	VFC	VF Correction	00H	00H
DABL	-	-	1CH	CNRT	-	-	10H
DCTRN	-	-	0CH	CNRB	-	-	10H
VSM	-	-	95H	HSC	-	-	10H
GAMMA	-	-	50H	VCEN	V Centering	7AH	69H
OSD	On Screen Display	-	28H	CPAR	-	-	08H
WPL	-	-	83H	CSAW	-	-	08H
COMP	-	-	0BH	DFV	-	-	08H
SCP	-	-	0EH	AGC1	-	-	03H
BLUE	-	-	21H	AGC2	-	-	03H
YGDJ	-	-	51H	PLLLWO	-	-	14H
OSCT	-	-	00H	PLLW1	-	-	03H
OSBR	-	-	00H	PLLW2	-	-	0FH
OSCL	-	-	00H	PLLW3	-	-	05H
OSTT	-	-	00H	PLLW4	-	-	14H
OSSH	-	-	00H	PLLW5	-	-	04H
OSRC	-	-	00H	VO1	-	-	23H
OSBC	-	-	00H	V25	-	-	4AH
OSRD	-	-	00H	V50	-	-	63H
OSBD	-	-	00H	V75	-	-	70H
MUTT	-	-	20H	MODH	-	-	20H
STAT	-	-	10H	MODL	-	-	91H
EICTX	-	-	50H	PRES	-	-	24H
EICTC	-	-	33H	SCTH	-	-	73H
EIABL	-	-	10H	SCTL	-	-	01H
E1DTR	-	-	83H	YOF	-	-	12H
E2CTX	-	-	10H	BOF	-	-	FDH
E2BRT	-	-	83H	ROF	-	-	0AH

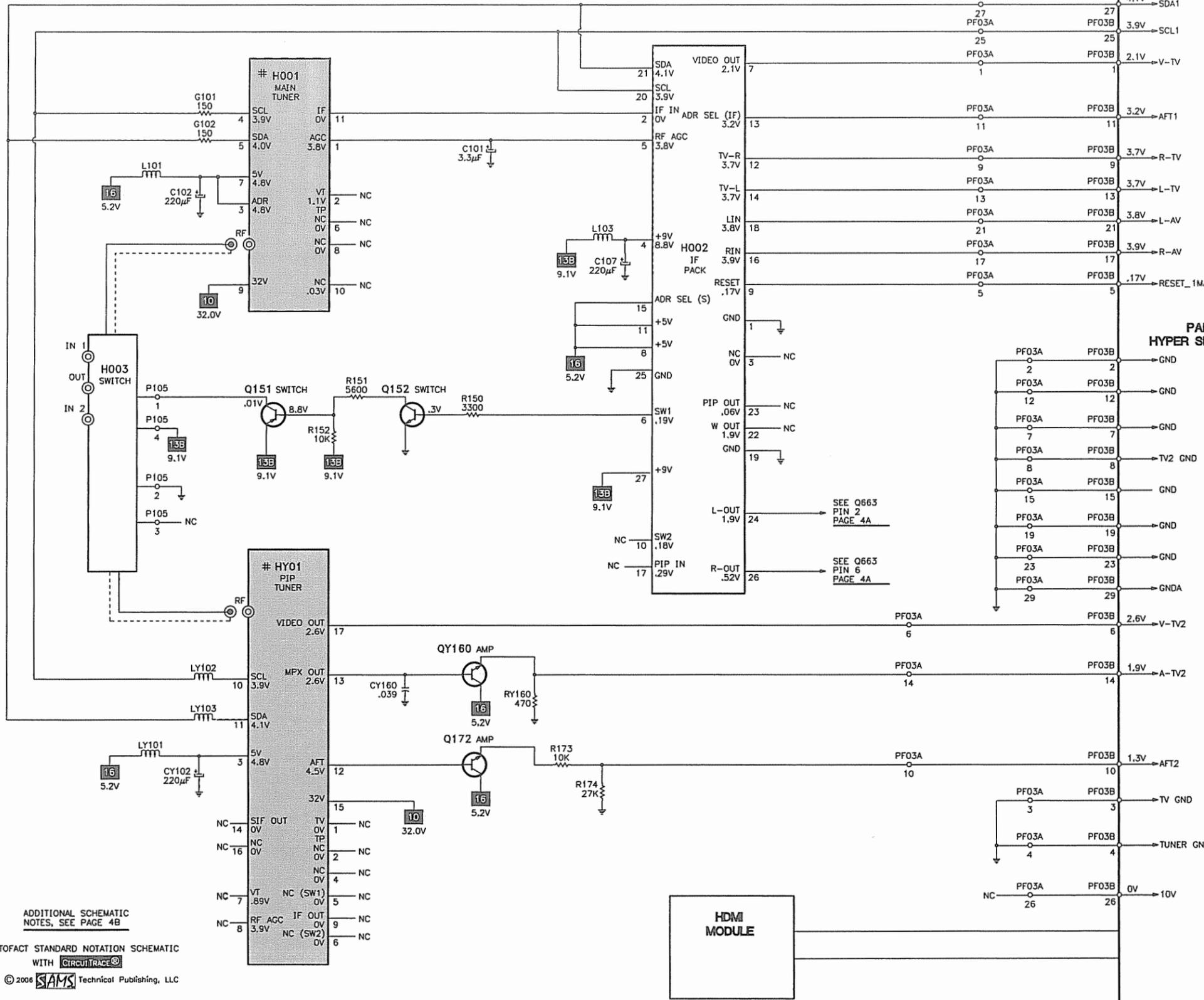
TOSHIBA

MODEL 65H85C

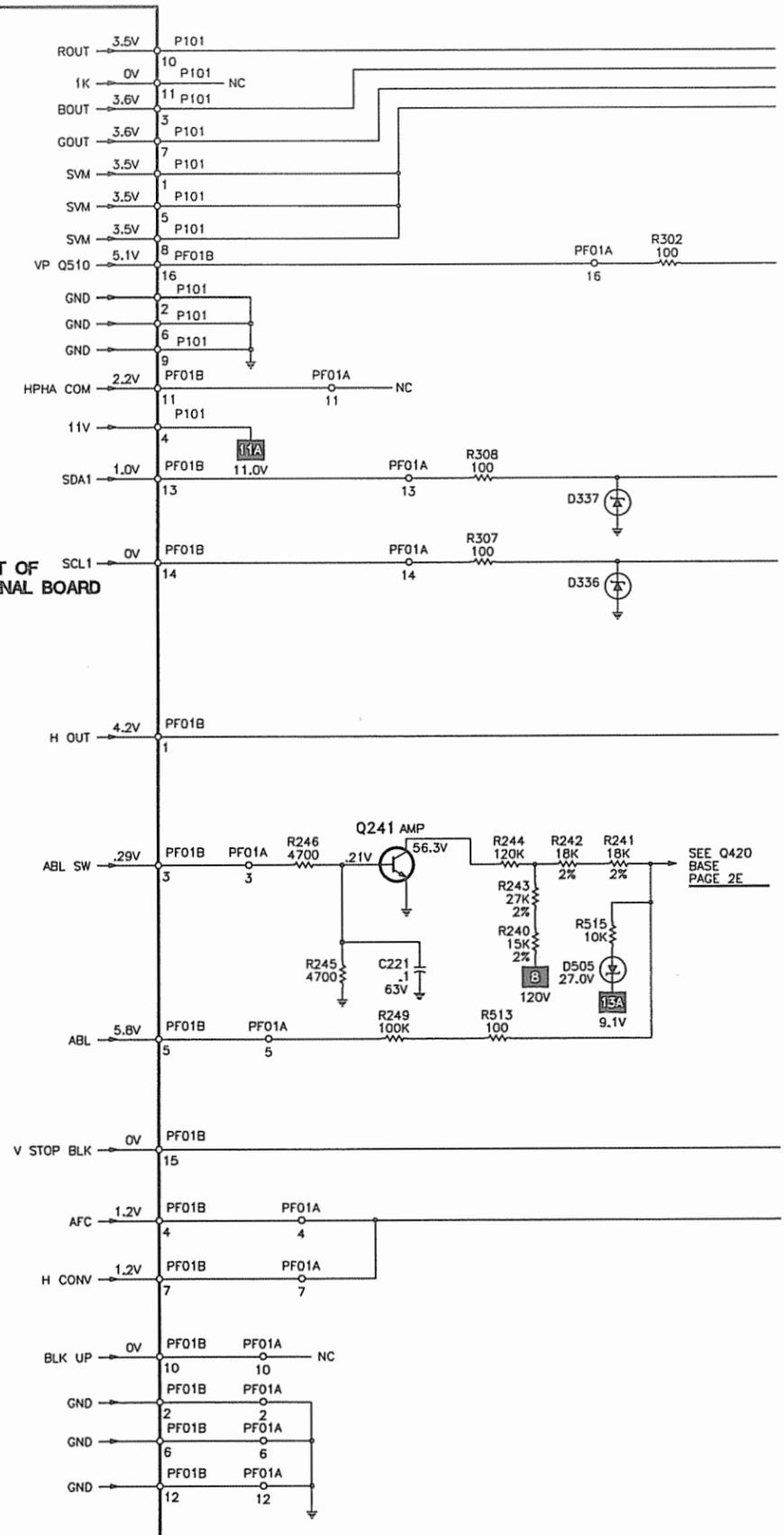
TELEVISION SCHEMATIC

A
B
C
D
E

B

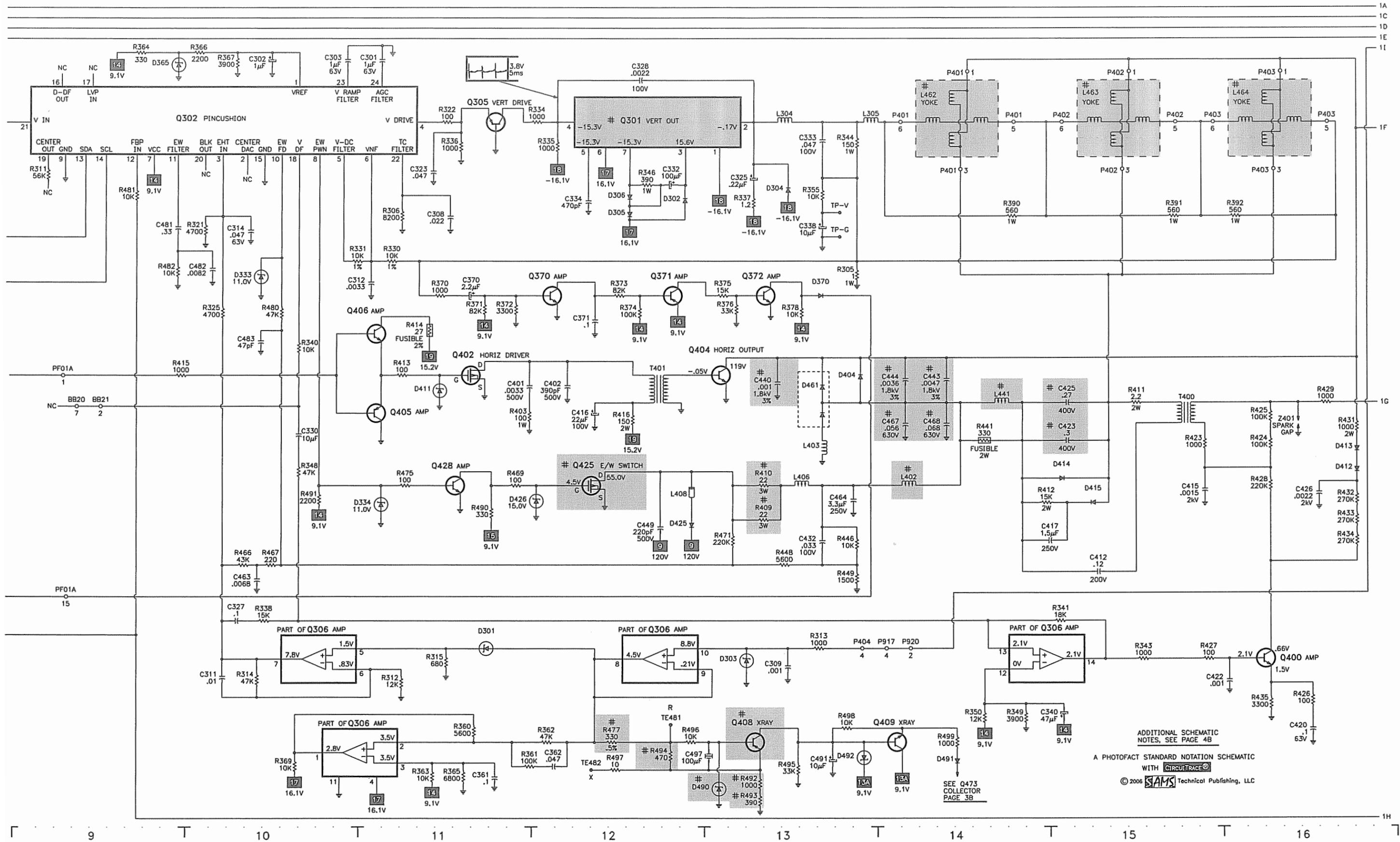


PART OF HYPER SIGNAL BOARD

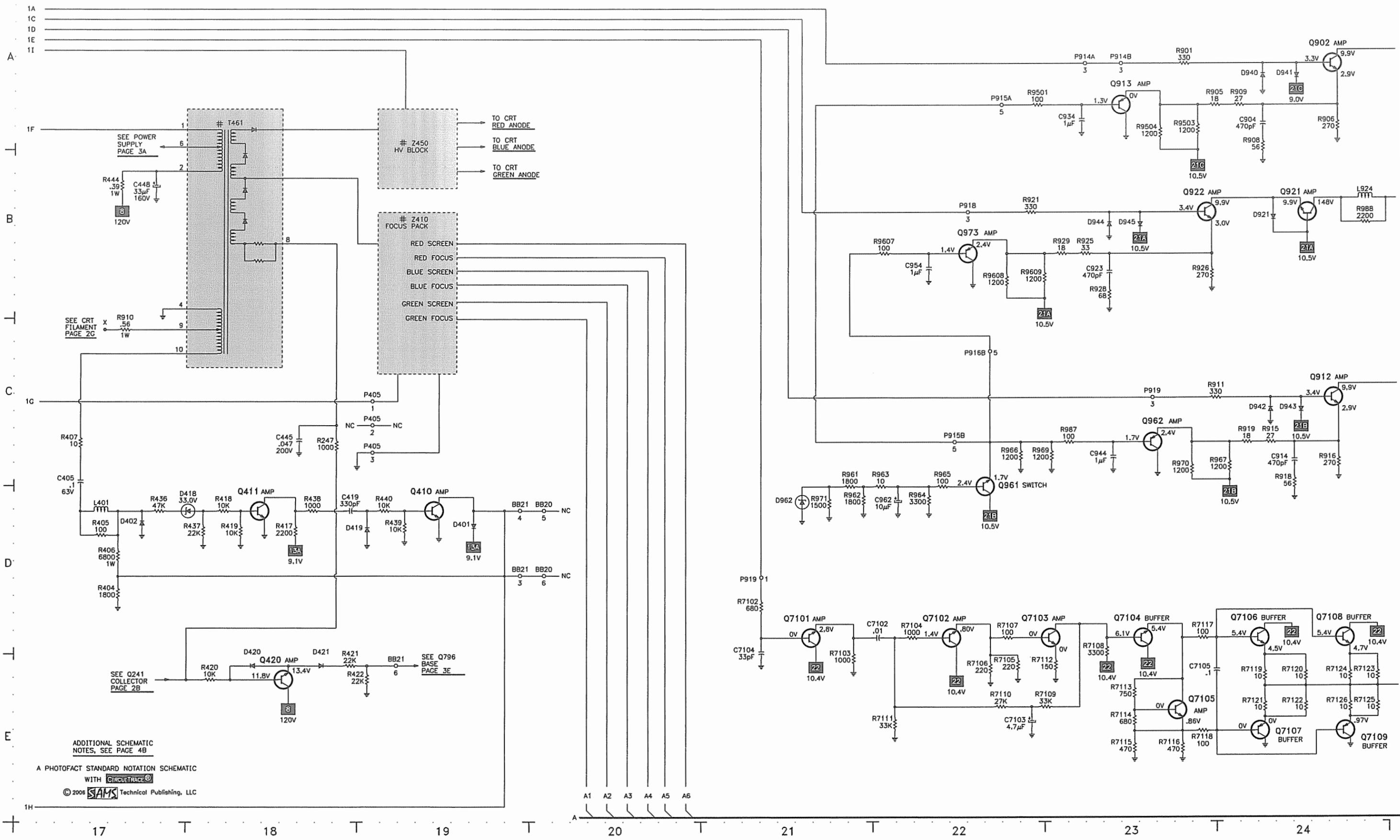


ADDITIONAL SCHEMATIC NOTES, SEE PAGE 4B

TELEVISION SCHEMATIC continued



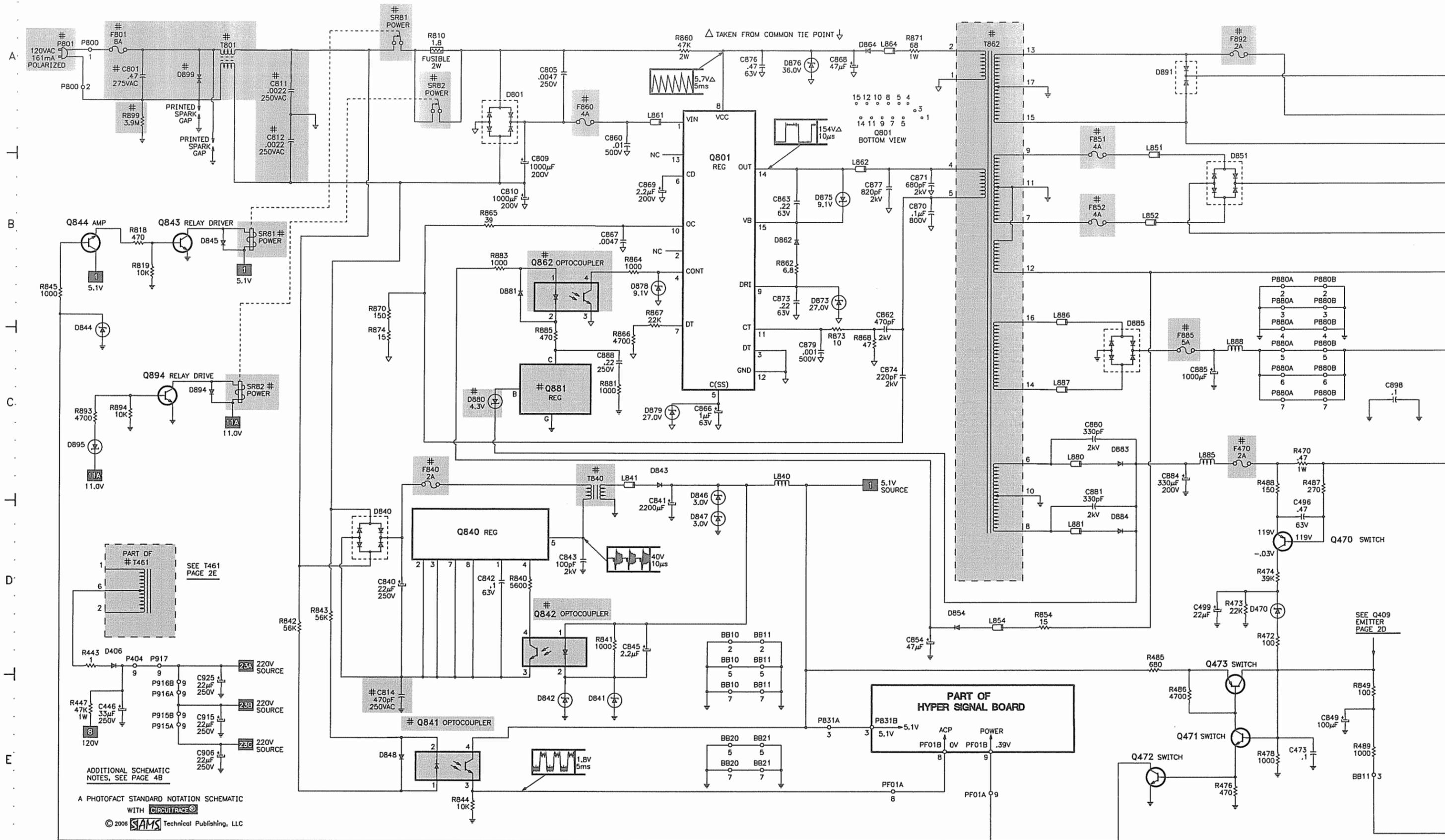
TELEVISION SCHEMATIC continued



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POWER SUPPLY SCHEMATIC

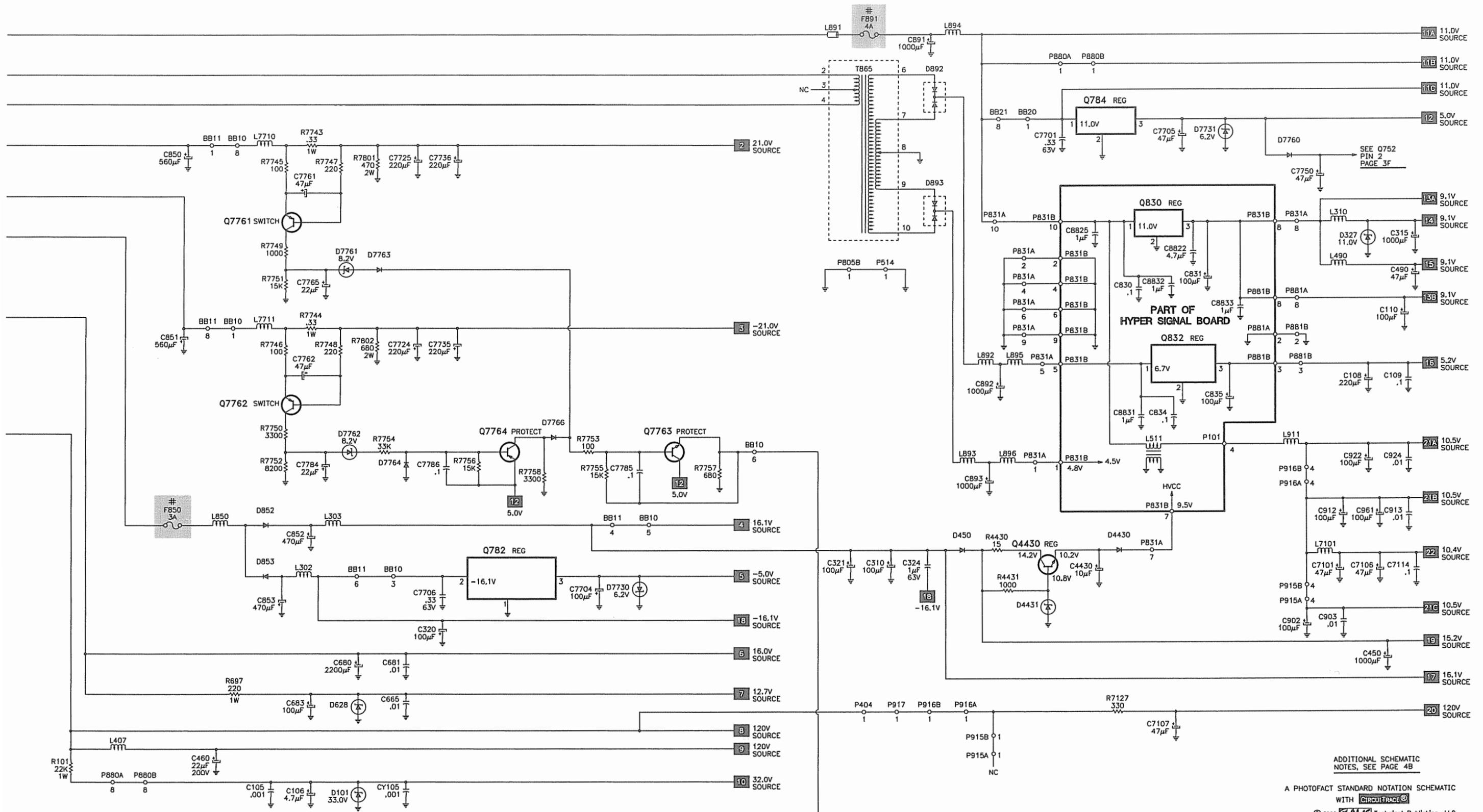


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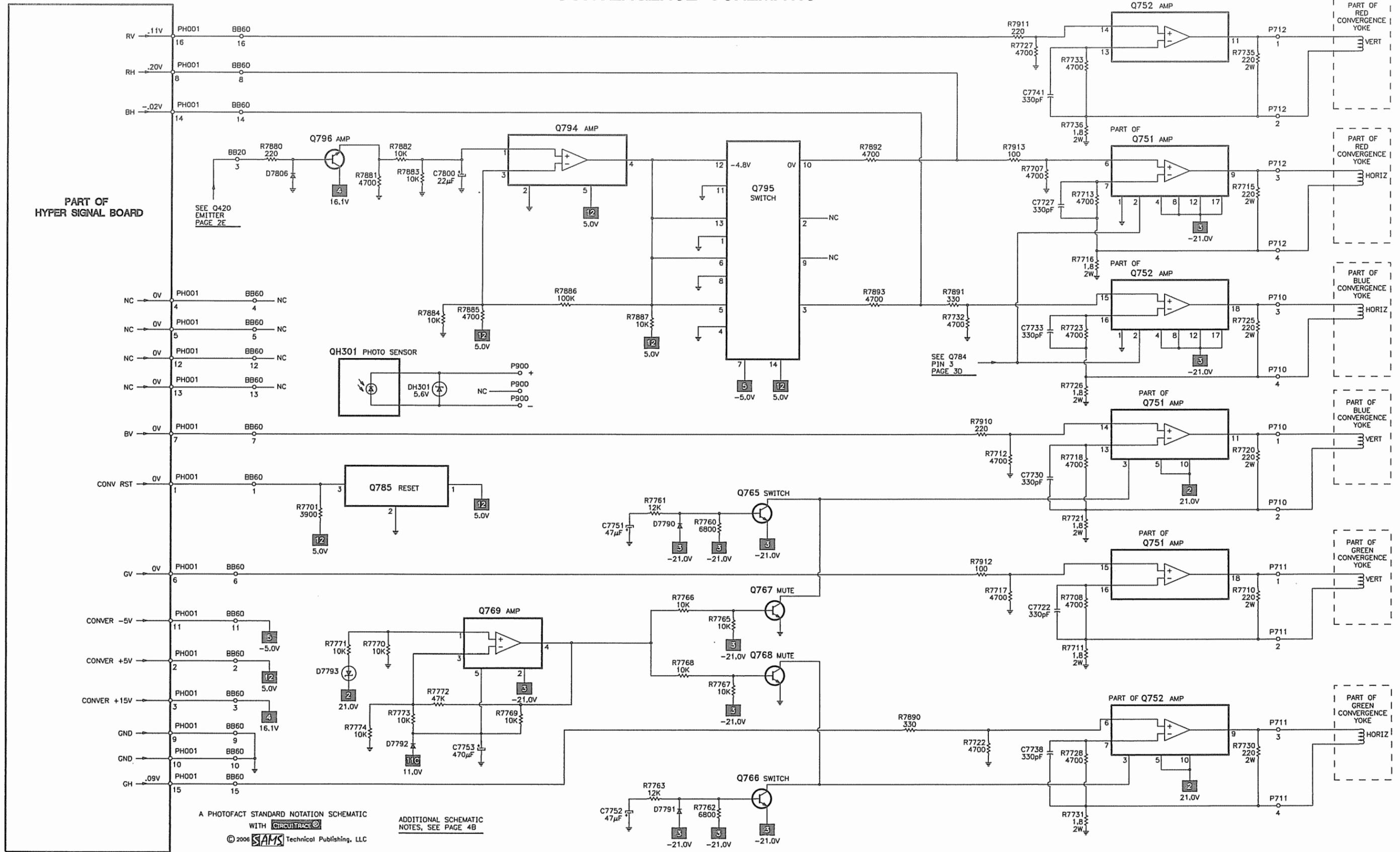


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CONVERGENCE SCHEMATIC

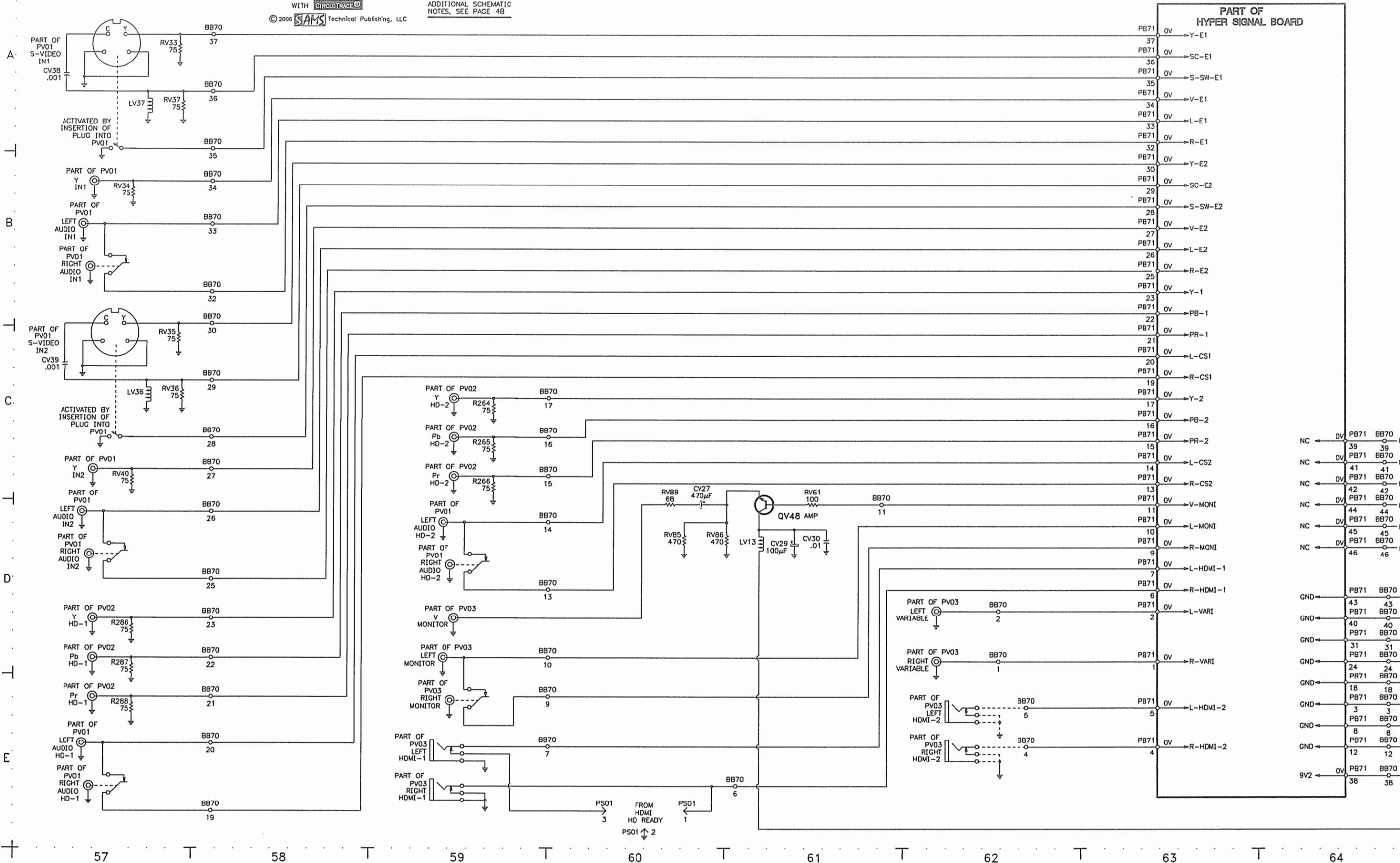


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ADDITIONAL SCHEMATIC NOTES, SEE PAGE 4B

BACK A/V SCHEMATIC

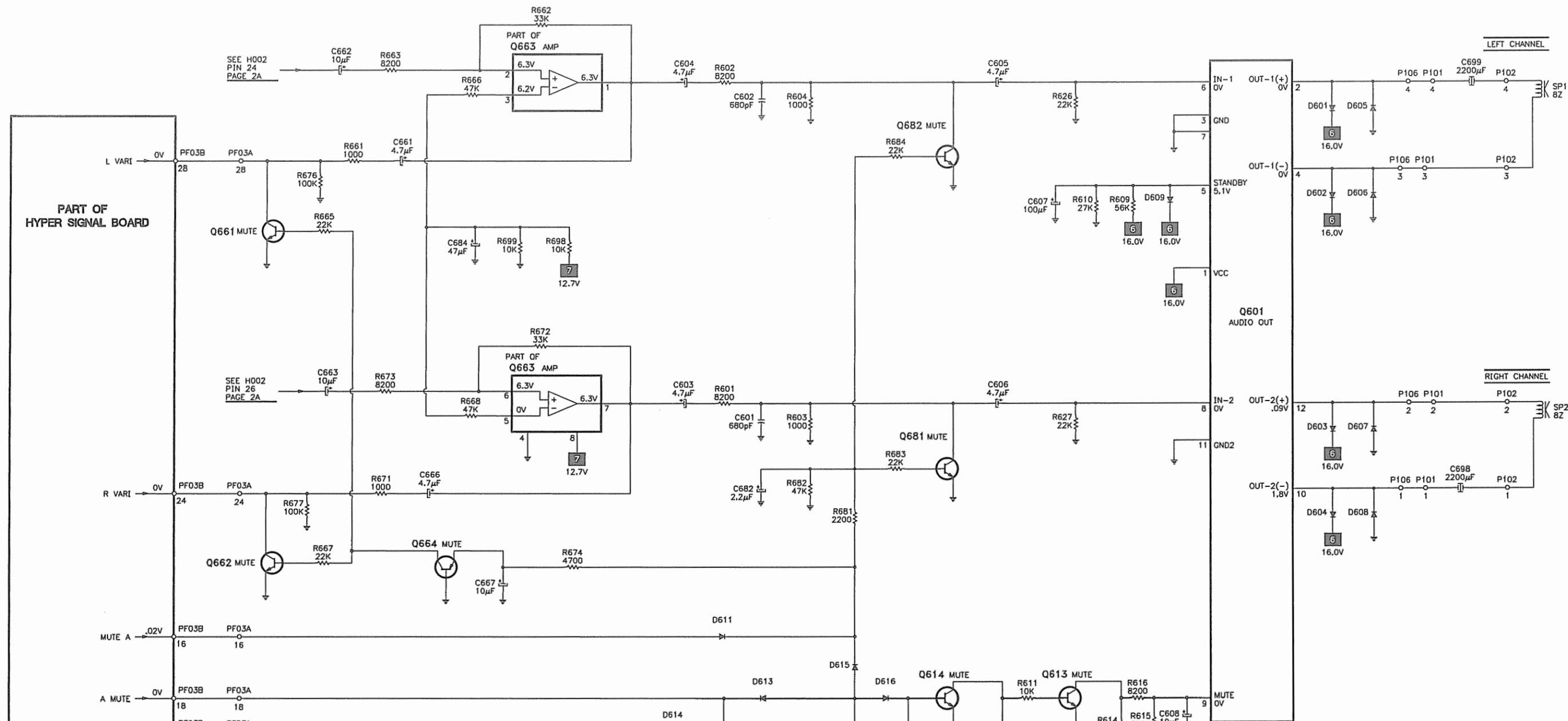
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TOSHIBA

MODEL 65H85C

AUDIO SCHEMATIC



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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
 - Ⓜ Schematic 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.
Capacitor values are in microfarads unless noted.
Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.
Resistors are less than 1W, 5% or greater unless noted.
Value in () used in some versions.
Measurements with switching as shown unless noted.
Rated voltage shown on zener diodes.

SCHEMATIC COMPONENT LOCATION GUIDE

C101	B3	C483	C10	C884	C39	C7784	D42	D613	D68	D4431	D46	L885	C39	Q404	C13	Q7101	D21	R355	B13	R469	D11	R810	A35	R969	C22	R7726	C55	RA76	B30
C102	B2	C490	B48	C885	C39	C7785	D44	D614	D68	D7101	D26	L886	C38	Q405	C11	Q7102	D22	R360	E11	R470	C40	R818	B33	R970	C23	R7727	A54	RA77	B29
C105	E42	C491	E13	C888	C36	C7786	D43	D615	D69	D7102	E25	L887	C38	Q406	C11	Q7103	D22	R361	E11	R471	D13	R819	B33	R971	D21	R7728	E55	RA78	B29
C106	E42	C496	D40	C891	A45	C7800	B51	D616	D69	D7730	D44	L888	C39	Q408	E13	Q7104	D23	R362	E12	R472	D40	R840	D35	R978	C25	R7730	E56	RA79	B29
C107	B3	C497	E13	C892	C46	C8822	B47	D617	E68	D7731	B47	L891	A45	Q409	E14	Q7105	E23	R363	E11	R473	D39	R841	D36	R987	C23	R7731	E55	RB01	C31
C108	C48	C499	D39	C893	D46	C8825	B46	D628	E42	D7760	B47	L892	C46	Q410	D19	Q7106	D24	R364	A9	R474	D40	R842	D34	R988	B24	R7732	B54	RB04	C32
C109	C48	C601	C68	C898	C40	C8831	C47	D751	E26	D7761	B42	L893	D46	Q411	D18	Q7107	E24	R365	E11	R475	D11	R843	D34	R991	A25	R7733	A55	RB05	C32
C110	C48	C602	A68	C901	B27	C8832	C47	D752	E25	D7762	C42	L894	A46	Q420	E18	Q7108	D24	R366	A10	R476	E39	R844	E35	R992	A26	R7735	A56	RB15	A30
C221	D7	C603	C68	C902	D48	C8833	C47	D801	A35	D7763	B43	L895	C46	Q425	C12	Q7109	E24	R367	A10	R477	E12	R845	B33	R4430	D46	R7736	A55	RB19	A29
C301	A11	C604	A68	C903	D48	CB01	A29	D840	D35	D7764	D43	L896	D46	Q428	D11	Q7761	B42	R369	E10	R478	E40	R849	E40	R4431	D46	R7743	B42	RV20	D29
C302	A10	C605	A69	C904	A24	CV14	C29	D841	E36	D7766	C43	L902	A26	Q470	D40	Q7762	C42	R370	B11	R480	C10	R854	D38	R7102	D21	R7744	C42	RV21	C30
C303	A10	C606	C69	C906	E34	CV27	D60	D842	E36	D7790	D52	L904	A25	Q471	E39	Q7763	C44	R371	C11	R481	B9	R860	A36	R7103	E21	R7745	B42	RV22	C29
C308	B11	C607	B70	C907	A28	CV29	D61	D843	C36	D7791	E52	L905	A25	Q472	E39	Q7764	C43	R372	C11	R482	B9	R862	B37	R7104	D22	R7746	C42	RV23	C29
C309	E13	C608	D70	C911	E27	CV30	D61	D844	C33	D7792	E51	L911	C47	Q473	E39	QB01	C31	R373	B12	R485	E39	R864	B36	R7105	E22	R7747	B42	RV33	A57
C310	D45	C612	E69	C912	D48	CV38	A57	D845	B34	D7793	D51	L913	C26	Q601	B71	QH301	C51	R374	C12	R486	E39	R865	B35	R7106	E22	R7748	C42	RV34	B57
C311	E10	C661	B67	C913	D48	CV39	C57	D846	D36	D7806	B50	L915	C25	Q612	E69	QV48	D61	R375	B13	R487	C40	R866	C36	R7107	D22	R7749	B42	RV35	C57
C312	B11	C662	A66	C914	C24	CY102	D2	D847	D36	DB01	B31	L916	C25	Q613	D70	QY160	D3	R376	C13	R488	C40	R867	C36	R7108	E23	R7750	C42	RV36	C57
C314	B10	C663	C66	C915	E34	CY105	E43	D848	E35	DB03	A32	L923	B26	Q614	D69	R101	E41	R378	C13	R489	E40	R868	C37	R7109	E22	R7751	C42	RV37	A57
C315	B48	C665	E43	C917	D28	CY160	D3	D849	B39	DH301	C51	L924	B24	Q661	B66	R150	C3	R390	B14	R490	D11	R870	C35	R7110	E22	R7752	D42	RV40	C57
C320	D43	C666	C67	C921	C27	D101	E42	D852	D42	F470	C39	L925	B25	Q662	D66	R151	C2	R391	B15	R491	D10	R871	A37	R7111	E22	R7753	C44	RV61	D61
C321	D45	C667	D67	C922	C48	D301	E11	D853	D42	F801	A33	L7101	D48	Q663	A67	R152	C2	R392	B16	R492	E13	R873	C37	R7112	E23	R7754	C43	RV85	D60
C323	B11	C680	E42	C923	B23	D302	B12	D854	D38	F840	C35	L7102	E25	Q663	C67	R173	D3	R403	C11	R493	E13	R874	C35	R7113	E23	R7755	D44	RV86	D60
C324	D45	C681	E43	C924	C48	D303	E13	D862	B37	F850	D41	L7103	E25	Q664	D67	R174	D3	R404	D17	R494	E12	R881	C36	R7114	E23	R7756	D43	RV89	D60
C325	B13	C682	C68	C925	E34	D304	B13	D864	A37	F851	B38	L7104	E26	Q681	C69	R240	D8	R405	D17	R495	E13	R883	B35	R7115	E23	R7757	D44	RY160	D3
C327	D10	C683	E42	C926	C28	D305	B12	D873	B37	F852	B38	L7710	B42	Q682	B69	R241	C8	R406	D17	R496	E12	R885	C35	R7116	E23	R7758	D43	SA01	B30
C328	A12	C684	B67	C934	A23	D306	B12	D875	B37	F860	A36	L7711	C42	Q711	D25	R242	C8	R407	C17	R497	E12	R893	C33	R7117	D23	R7760	D53	SA02	B30
C330	C10	C698	C72	C944	C23	D327	B48	D876	A37	F885	C39	LV13	D61	Q712	E25	R243	C8	R409	D13	R498	E13	R894	C33	R7118	E23	R7761	D52	SA03	B29
C332	B12	C699	A72	C954	B22	D333	B10	D878	B36	F891	A45	LV20	C30	Q751	B55	R244	C8	R410	D13	R499	E14	R899	A33	R7119	E24	R7762	E53	SA04	B29
C333	B13	C801	A33	C961	D48	D334	D11	D879	C36	F892	A39	LV36	C57	Q751	C55	R245	D7	R411	C15	R513	D8	R900	C26	R7120	E24	R7763	E52	SA05	B30
C334	B12	C805	A36	C962	D22	D336	B8	D880	C35	G101	A2	LV37	A57	Q751	D55	R246	C7	R412	D14	R515	D8	R901	A23	R7121	E24	R7765	D53	SA06	B30
C338	B13	C809	B35	C4430	D46	D337	B8	D881	B35	G102	B2	LY101	D1	Q752	A55	R247	C18	R413	C11	R601	C68	R903	A26	R7122	E24	R7766	D52	SA07	B29
C340	E15	C810	B35	C7101	D48	D365	A9	D883	C39	H001	A2	LY102	D2	Q752	B55	R249	D7	R414	C11	R602	A68	R905	A23	R7123	E24	R7767	E53	SA08	B29
C361	E11	C811	A34	C7102	D21	D370	B13	D884	D39	H002	B4	LY103	D2	Q752	E55	R264	C59	R415	C9	R603	C69	R906	A24	R7124	E24	R7768	D52	SA09	B29
C362	E12	C812	B34	C7103	E22	D401	D19	D885	C39	H003	C1	P801	A33	Q765	D53	R265	C59	R416	C12	R604	A69	R908	B24	R7125	E24	R7769	E51	SP1	A72
C370	B11	C814	E35	C7104	E21	D402	D17	D891	A39	HY01	C2	PV01	B57	Q766	E53	R266	C59	R417	D18	R609	B70	R909	A24	R7126	E24	R7770	D51	SP2	C72
C371	C12	C830	C47	C7105	E23	D404	C13	D892	A46	KB01	A29	PV01	B57	Q767	D53	R286	D57	R418	D18	R610	B70	R910	C17	R7127	E46	R7771	D51	SR81	A35
C401	C11	C831	B47	C7106	D48	D406	E33	D893	B46	L101	B1	PV01	D57	Q768	D53	R287	D57	R419	D18	R611	D70	R911	C23	R7128	D26	R7772	E51	SR81	A35
C402	C12	C834	C47	C7107	E47	D411	C11	D894	C34	L103	B3	PV01	D57	Q769	D51	R288	E57	R420	E18	R612	E69	R913	D26	R7129	D26	R7773	E51	SR81	B34
C405	D17	C835	C47	C7108	D25	D412	C16	D895	C33	L302	D42	PV01	D59	Q782	D43	R302	A8	R421	E18	R613	D70	R915	C24	R7130	E25	R7774	E51	SR82	A35
C412	D15	C840	D35	C7109	E25	D413	C16	D899	A34	L303	D42	PV01	D59	Q784	B46	R305	B13	R422	E19	R614	D70	R916	C24	R7131	E25	R7801	B43	SR82	C34
C415	D15	C841	D36	C7110	E26	D414	D15	D901	A25	L304	A13	PV01	E57	Q785	C51	R306	B11	R423	C15	R615	D70	R918	D24	R7132	E25	R7802	C43	SVM	E26
C416	C12	C842	D35	C7111	E25	D415	D15	D906	B26	L305	A13	PV01	E57	Q794	A52	R307	B8	R424	C16	R616	D70	R919	C24	R7133	E25	R7880	B50	T400	C15
C417	D14	C843	D36	C7112	E26	D418	D17	D907	B26	L310	B48	PV03	D59	Q795	B53	R308	B8	R425	C16	R626	A70	R920	B25	R7134	E25	R7881	B51	T401	C12
C419	D18	C845	D36	C7113	E26	D419	D19	D908	B26	L401	D17	PV03	E59	Q796	B50	R311	B9	R426	E16	R627	C70	R921	B22	R7135	D26	R7882	B51	T461	B18
C420	E16	C849	E40	C7114	D48	D420	E18	D909	B26	L402	D14	PV03	E59	Q801	B36	R312	E11	R427	E15	R661	B66	R923	B26	R7136	E26	R7883	B51	T461	D33
C422	E16	C850	B41	C7701	B46	D421	E18	D912	C25	L403	C13	PV03	E59	Q830	B47	R313	E13	R428	D16	R662	A67	R925	B23	R7137	E25	R7884	B51	T801	A34
C423	C15	C851	C41	C7704	D44	D425	D12	D913	D28	L406	D13	PV03	E62	Q832	C47	R314	E10	R429	C16	R663	A67	R926	B23	R7138	E25	R7885	B51	T840	C36
C425	C15	C852	D42	C7705	B47	D426	D12	D916	D26	L407	E41	PV03	E62	Q840	D35	R315	E11	R431	C16	R665	B66	R928	B23	R7139	E26	R7886	B52	T862	A38
C426	D16	C853	D42	C7706	D43	D450	D46	D917	C26	L408	D12	PV05	D29	Q841	E35	R321	B10	R432	D16	R666	A67	R929	B23	R7140	D25	R7887	B52	T865	A45
C432	D13	C854	D38	C7722	D54	D461	C13	D918	C26	L441	C14	PV05	D29	Q842	D36	R322	A11	R433	D16	R667	D66	R930	B26	R7141	E25	R7890	E54	TE481	E12
C440	C13	C860	B36	C7724	C43	D470	D40	D919	D26	L462	A14	Q151	C2	Q843	B33	R325	C10	R434	D16	R668	C67	R931	A25	R7701	D50	R7891	B54	TE482	E12
C443	C14	C862	C37	C7725	B43	D490	E13	D921	B24	L463	A15	Q152	C3	Q844	B33	R330	B11	R435	E16	R671	C66	R938	A28	R7707	B54	R7892	B53	TP-G	B13
C444	C14	C863	B37	C7727	B54	D491	E14	D926	B26	L464	A16	Q172																	

PARTS LIST

Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Type No.	Mfr. Part No.	NTE Part No.	Item No.	Type No.	Mfr. Part No.	NTE Part No.
D101	MTZJ33C	23357901	-	D909	1SS244	23357104	NTE587	Q784	KIA7805API-U/P	23085424	-
D301	MA8075-H	23357755	-	D912	1SS133	23357697	NTE519	Q785	PST994D	23085596	-
D302	FR105-B5	23357366	NTE552	D913	1S1834(Q)	23357498	NTE552	Q794	TA75S393(F)	23085560	-
D303	MTZJ15C	23357872	-	D916 Thru	-	-	-	Q795	TC4066BP(N,F)	23085691	-
D304	SC570A	23357917	-	D919	1SS244	23357104	NTE587	Q796	KTC4075Y/P	23205347	-
D305, 06	1N4004A-B5	23357365	NTE116	D921	1SS133	23357697	NTE519	Q801	STR-Z4479	23135066	-
D327	MTZJ11A	23357861	-	D926 Thru	-	-	-	Q830	BA90BC	-	-
D333, 34	MTZJ11A	23357861	-	D929	1SS244	23357104	NTE587	Q832	BA50BC	-	-
D336, 37	MA8056-M	23357745	-	D936	1S1834(Q)	23357496	NTE552	Q840	MIP280	23085559	-
D365	MA8075-H	23357755	-	D940 Thru	-	-	-	# Q841, 42	PS2581L1(D)	23085431	-
D370	1SS355	23357703	NTE519	D945	1SS133	23357697	NTE519	Q843, 44	KTC4075Y/P	23205347	-
D401	AG01	23357510	NTE552	D962	MA8062-M	23357748	-	# Q862	PS2581L1(D)	23085431	-
D402	FR105-B5	23357366	NTE552	D967	1S1834(Q)	23357496	NTE552	# Q881	SE116N	23085524	-
D404	ERC06-15	23357705	NTE506	D4430	1N4004A-B5	23357365	NTE116	Q894	KTC4075Y/P	23205347	-
D406	FR105-B5	23357366	NTE552	D4431	MA8110-L	23357767	-	Q901	2SC3942	23205412	NTE376
D411	MA8180-M	23357784	-	D7101, 02	1SS133	23357697	NTE519	Q902	2SC3950E	23205415	-
D412, 13	RP-1H	23357694	-	D7730, 31	RD6.2ESAB2	23357647	NTE5013T1	Q911	2SC3942	23205412	NTE376
D414, 15	FR105-B5	23357366	NTE552	D7760	1SS355	23357703	NTE519	Q912	2SC3950E	23205415	-
D418	MTZJ33C	23357901	-	D7761, 62	RD8.2ESAB2	23357629	NTE5016A	Q913	KTA1504SY/P	23205357	-
D419	1SS355	23357703	NTE519	D7763	1SS355	23357703	NTE519	Q921	2SC3942	23205412	NTE376
D420	1SS133	23357697	NTE519	D7764, 66	1SS355	23357703	NTE519	Q922	2SC3950E	23205415	-
D421, 25	FR105-B5	23357366	NTE552	D7790, 91, 92	1SS355	23357703	NTE519	Q961	KTC3875SY/P	23205358	-
D426	MA8180-M	23357784	-	D7793	MA8082-M	23357759	-	Q962, 73	KTA1504SY/P	23205357	-
D450	1N4004A-B5	23357365	NTE116	D7806	1SS355	23357703	NTE519	Q4430	2SC2236-Y(F)	23205444	-
D461	FMQ-3GU	23357701	-	DB01	SLR-56VC3FPQ	23358606	-	Q7101, 02	KTC3875SY/P	23205358	-
D470	MA8120-L	23357770	-	DB03	SIR-56SB3F	23358615	-	Q7103	2SC3437-Y	23085635	-
# D490	MA8062-M	23357748	-	DH301	MTZJ5.6B	23357837	NTE5011T1	Q7104	2SC1815-GR(F)	23205312	-
D491	1SS355	23357703	NTE519	Q151	KTA2014Y/P	23205346	-	Q7105, 06	KTC3875SY/P	23205358	-
D492	MA8100-M	23357765	-	Q152, 72	KTC4075Y/P	23205347	-	Q7107	KTA1504SY/P	23205357	-
D505	MTZJ27C	23357893	-	Q241	2SC2482(F)	23205342	NTE399	Q7108	KTC3875SY/P	23205358	-
D601 Thru	-	-	-	# Q301	LA7833-S-E	23085526	-	Q7109	KTA1504SY/P	23205357	-
D609	1SS355	23357703	NTE519	Q302	TA1317ANG	23085309	-	Q7761	KTA2014Y/P	23205346	-
D611 Thru	-	-	-	Q305	KTA2014Y/P	23205346	-	Q7762, 63	KTC4075Y/P	23205347	-
D617	1SS355	23357703	NTE519	Q306	TA75902PG(J)	23085588	-	Q7764	KTA2014Y/P	23205346	-
D628	MA8120-M	23357771	-	Q370	KTC4075Y/P	23205347	-	QB01	KTC3198Y/P	23205499	-
D751, 52	1SS244	23357104	NTE587	Q371	KTA2014Y/P	23205346	-	QH301	AM-30-24CA-E	23358614	-
D801	D5SB60	23357712	NTE5330	Q372	KTC4075Y/P	23205347	-	QV48	KTC3198Y/P	23205499	-
D840	LNIWBA60	23362046	-	Q400	2SC4686A(Q)	23205370	-	QY160	KTC4075Y/P	23205347	-
D841	MA8056-H	23357746	-	Q402	2SK2962(F)	23205416	-				
D842	MA8047-L	23357738	-	Q404	2SC5859(FA,Q)	23205405	-				
D843	FR105-B5	23357366	NTE552	Q405	KTA2014Y/P	23205346	-				
D844	MA8056-M	23357745	-	Q406	KTC4075Y/P	23205347	-				
D845	1SS355	23357703	NTE519	# Q408	KTA2014Y/P	23205346	-				
D846, 47	RD3.0ESAB2	23357684	-	Q409, 10, 11	KTC4075Y/P	23205347	-				
D848	1SS355	23357703	NTE519	Q420	2SC2482(F)	23205342	NTE399				
D851	D4SBL20U	23362051	-	# Q425	2SK2920(Q)	23205350	-				
D852, 53	RL2Z	23357860	NTE588	Q428	KTC4075Y/P	23205347	-				
D854	FR105-B5	23357366	NTE552	Q470	2SA1320	23114541	NTE288				
D862, 64	FR105-B5	23357366	NTE552	Q471, 72	KTC4075Y/P	23205347	-				
D873	MTZJ27C	23357893	-	Q473	KTA2014Y/P	23205346	-				
D875	MTZJ9.1C	23357852	-	Q601	AN7580	23009603	-				
D876	MTZJ36C	23357905	-	Q612	KTA2014Y/P	23205346	-				
D878	MTZJ9.1A	23357850	-	Q613	KTC4075Y/P	23205347	-				
D879	MTZJ27C	23357893	-	Q614	RN1406(F)	23205327	-				
# D880	MTZJ4.3B	23357828	-	Q661, 62	KTC2875B/P	23205424	-				
D881	1SS355	23357703	NTE519	Q663	BA4558	23085575	NTE778A				
D883, 84	RL2	23357105	-	Q664	RN2404(F)	23205325	-				
D885	D4SBS4	23362049	-	Q681, 82	KTC2875B/P	23205424	-				
D891	YG801C04RF119	23362136	-	Q711	2SA2005	23205269	-				
D892, 93	FMX-12S	23357408	NTE6240	Q712	2SC5511	23205270	-				
D894	1SS355	23357703	NTE519	Q751, 52	STK394-250A	23135074	-				
D895	MA8062-M	23357748	-	Q765 Thru	-	-	-				
# D899	TNR10V431K	24019485	-	Q768	KTC4075Y/P	23205347	-	# F470	Fuse	23144390	2Amp, 125V
D901	1SS133	23357697	NTE519	Q769	TA75S39F(F)	23085560	-	# F801	Fuse	23144319	8Amp, 125V
D906 Thru	-	-	-	Q782	NJM79M05FA	23085531	NTE1961	# F840	Fuse	23144704	2Amp, 125V
								# F850	Fuse	23144712	3Amp, 125V

PARTS LIST continued

Item No.	Function/Rating	Mfr. Part No.	Notes	Item No.	Function/Rating	Mfr. Part No.	Notes
# F851, 52	Fuse	23144714	4Amp, 125V	# R409, 10	22 5% 3W	76555220	-
# F860	Fuse	23144394	4Amp, 125V	R414	27 2% 1/4W Fusible	76019259	-
# F885	Fuse	23144715	5Amp, 125V	R441	330 5% 2W Fusible	76533331	-
# F891	Fuse	23144714	4Amp, 125V	# R477	330 .5% 1/16W	76998331	-
# F892	Fuse	23144710	2Amp, 125V	# R492	1000 1/16W	76999102	-
# H001	Tuner	23321482	Main	# R493	390 1/16W	76998391	-
H002	IF	23148378	Module	# R494	470 1/16W	76998471	-
H003	Switch	23124099	Antenna	R810	1.8 10% 2W Fusible	76007061	-
# HY01	Tuner	23321480	PIP	# R899	3.9M 5% 1/2W	76010001	-
KB01	Receiver	23000852	Remote, PIC-37043TE2	R900	1.2 5% 1W Fusible	76000892	-
L101	-	23289027	-	R931, 44, 51	2700 5% 7W	76568272	-
L103	-	23289026	-	# R7139	220 5% 2W	76554221	-
L302, 03	-	23248400	-	SA01	Switch	23344505	Channel Up
L304	Ferrite Bead	23103302	-	SA02	Switch	23344505	Channel Down
L305	Ferrite Bead	23103307	-	SA03	Switch	23344505	Volume Up
L310	-	23289028	-	SA04	Switch	23344505	Volume Down
L401	-	23289009	-	SA05	Switch	23344505	Power
# L402	-	23248455	-	SA06	Switch	23344505	Menu
L403	Ferrite Bead	23103302	-	SA07	Switch	23344505	Video
L406	-	23248413	-	SA08	Switch	23344505	Focus
L407, 08	Ferrite Bead	23103307	-	SA09	Switch	23344505	Exit
# L441	Horizontal Linearity	23233136	-	SP1, 2	Speaker	23351242	160 X 160mm, 8 Ohms, 20W
# L462, 63, 64	Yoke	23231390	-	# SR81	Relay	23146577	Power
L472, 73, 74	-	23102564	-	# SR82	Relay	23146564	Power
L490	-	23289981	-	SVM	Coil	-	-
L511	-	-	-	T400	Focus	23224401	-
L840	-	23289025	-	T401	Horizontal Drive	23224396	-
L841	Ferrite Bead	23103304	-	# T461	Horizontal Output	23236933	-
L850, 51, 52, 54	Ferrite Bead	23103304	-	# T801	Line Filter	23211836	-
L861, 62, 64	Ferrite Bead	23103304	-	# T840	Converter	23217704	-
L880, 81	Ferrite Bead	23103304	-	# T862	Converter	23217669	-
L885	-	23248400	-	T865	Pulse	23224392	-
L886, 87	Ferrite Bead	23103304	-	# V901	CRT	23447321	Coupling Red
L888	-	23248446	-	# V902	CRT	23447319	Coupling, Green
L891, 92, 93	Ferrite Bead	23103304	-	# V903	CRT	23447322	Coupling, Blue
L894, 95, 96	-	23248432	-	Z401	Spark Gap	23140203	2-3kV
L902	-	23289993	-	# Z410	Focus Pack	23110857	-
L904	-	23289989	-	# Z450	HV Block	24083014	-
L905	-	23289014	-	#	CRT Socket	23903180	Red, Green, Blue
L911	-	23289996	-		Fuse Holder	23165433	For F801 (2 Used)
L913	-	23289993	-		Mirror	23405415	-
L915	-	23289014	-		PC Board	23764148	Back A/V
L916	-	23289989	-		PC Board	23764150	Convergence
L923	-	23289993	-		PC Board	23764152	Convergence
L924	-	23289989	-		PC Board	23764151	Convergence
L925	-	23289014	-		PC Board	23764154	Convergence
L7101	-	23289022	-		PC Board	23764157	CRT, Red
L7102, 03	Ferrite Bead	23103304	-		PC Board	23764147	CRT, Green
L7104	Ferrite Bead	23103323	-		PC Board	23764159	CRT, Blue
L7710, 11	-	23248400	-		PC Board	23764161	Deflection/Power
LV13	-	23289985	-		PC Board	23764156	Front Control
LV20	-	23221156	-		PC Board	23764149	Front Input
LV36, 37	-	23289009	-		PC Board	23764158	IF/Audio
LY101	-	23248398	-		PC Board	23764155	Remote
LY102, 03	-	23221144	-		PC Board	23148421	Scan Converter
# P801	Line Cord	23372209	AC, Polarized		PC Board	23764160	Speaker
PV01	Jack	23023311	Assembly		PC Board	23764153	SVM
PV02	Jack	23023205	Assembly		PC Board	23761975	Tuner
PV03	Jack	23023211	Assembly		Screen	23311010	Fresnel
PV05	Jack	23023184	Assembly		Screen	23311131	Lenticular
R240	15K 2% 1/6W	76367153	-		Screen	23311962	Protector
R241, 42	18K 2% 1/6W	76367183	-	#	Transmitter	23306596	Remote, CT-90159
R243	27K 2% 1/6W	76367273	-				
R330, 31	10K 1% 1/4W	76000633	-				

For SAFETY use only equivalent replacement part.

Important Parts Information

- Parts not listed in the parts list are commonly available at your local electronics parts retailer.
- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

Obtaining Parts

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

800-428-7267

Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors.

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

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

TOSHIBA

MODEL 65H85C