

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 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 inner board wiring for pinched wires or wires contacting any high wattage resistors. Check that all knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

TEST JIG HOOKUP				
Function	Chek-A-Color Adapter No.	PC Board Plug No.	Pin	Color
CRT	B239	Yoke-H	E4401	Red
Yoke	D4160		E4402	Blue
Yoke Setting	YP1A	Yoke-V	E4501	Yellow
Comments	Focus Tap		E4502	Green

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

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A Bell Atlantic Company
2647 Waterfront Parkway East Drive, Suite 100
Indianapolis, IN 46214-2012
Printed in the United States of America 5 4 3 2 1

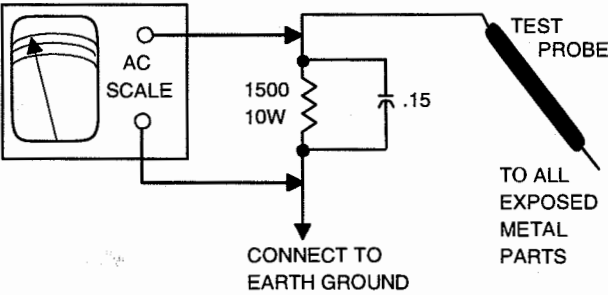
SAFETY CHECKS -- FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

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

Hot Leakage Current Check

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



HIGH VOLTAGE SHUTDOWN TEST

Apply 120VAC to set, turn set on, and adjust brightness and contrast to maximum. Short XRP-1 to XRP-2. If the set does shutdown and then cycle on and off, the shutdown circuit requires repair. To resume normal operation, remove short from XRP-1 and XRP-2.



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PHOTOFACT® Technical Service Data

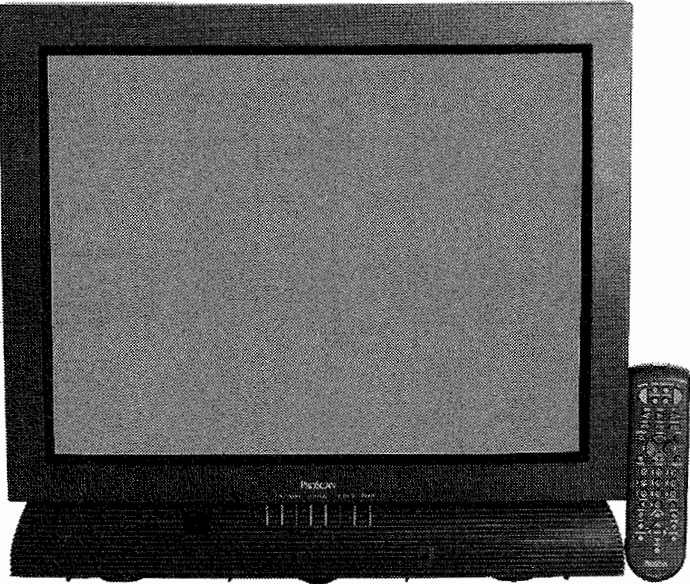
SET 3864

MODEL PS27123 (CHASSIS CTC169CG5)

PROSCAN

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PROSCAN
Model PS27123 (Chassis CTC169CG5)



Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list



HOWARD W. SAMS & COMPANY

AUGUST 1997 SET 3864

For Supplier Address,
See PHOTOFACT Annual Index

MISCELLANEOUS ADJUSTMENTS

PRETUNING

To accomplish on screen adjustments, repeatedly press the menu button to highlight the desired menu, and then press the + button. Press the menu button to highlight the function that is to be adjusted. Press the + or - button to adjust the selected function. The on screen menu disappears in a few seconds if the + or - button is not pressed.

B+ STANDBY

Tune in a picture. Set brightness, contrast, and color to minimum. Connect a voltmeter to the cathode of CR4116. With 120VAC line input, adjust R4113 for 141V ±.5V.

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness, contrast, and color to minimum. Connect a high voltage probe to the CRT anode. High voltage must measure 27.5kV to 30kV. High voltage must never exceed 30kV.

RF AGC

NOTE: R2311 should not require adjustment unless the tuner, U1001, or R2311 has been replaced. If adjustment of R2311 is required, tune in the weakest local station. Adjust R2311 fully counterclockwise, and then clockwise for best picture. Check all other available channels for proper adjustment.

CONTRAST PRESET

Tune in a crosshatch pattern. Set brightness and color to minimum, contrast to midrange. Adjust R2730 to a point where highlights are visible.

TINT PRESET

Tune in an active channel. Adjust R2816 for proper flesh tones.

HORIZONTAL PHASE

Adjust R4306 to center the picture horizontally.

PINCUSHION

Tune in a crosshatch pattern. Adjust R4805 for straight vertical lines at the top and bottom of the screen. Adjust R4802 for a slight overscan.

SUB BRIGHTNESS

Tune in a crosshatch pattern. Set contrast, brightness, and color to minimum. Adjust R3346 for faintly visible highlights. Set contrast, brightness, and color to maximum. Check for blooming, readjust if necessary.

CHROMA FILTER

Tune in a color bar pattern. Adjust R2802 for the proper color display and clean transition between bars.

COLOR TEMPERATURE

Tune in a crosshatch pattern. Set color, contrast, R2913, R2917, R2921, and screen control to minimum. Set R2926, R2928, and brightness to midrange. Obtain a service line by shorting the collector of Q4505 to ground. Advance screen control until a line of one predominate color is just visible. Adjust R2913, R2917, and R2921 to obtain a white line. Set brightness and contrast to maximum. Adjust R2926 and R2928 for best black and white picture. Check tracking at low and high brightness.

SYNC LEVEL

Tune in a color bar signal. Connect an oscilloscope to the emitter of Q6423. Adjust R6488 for 5.0Vp-p.

CONVERGENCE/ PURITY

The deflection yoke is bonded to the CRT. Purity and convergence adjustments are not required.

STEREO ADJUSTMENTS

NOTE: Adjustments were made using a TV/stereo generator connected to the RF in 1 input A terminal. Set receiver to stereo mode.

Wide Band Audio Level

Select 300Hz audio frequency and L+R modulating signal. Connect oscilloscope to pin 7 of JM1900. Adjust R1204 for .3V p-p.

Stereo/SAP Filter

Select SAP, 1kHz audio frequency, and L+R modulating signal. Connect oscilloscope to pin 3 of U1600. Adjust R1604 for minimum indication.

Stereo VCO

Select pilot, 1kHz audio frequency, and L+R modulating signal. Connect a digital voltmeter to pin 42 of U1600. Adjust R1616 for 1.35V.

Baseband LPF

Remove power to set, and unsolder jumper wire JW212. Connect an audio generator to pin 34 of U1600. Apply AC power, and set the frequency on audio generator for 15734Hz. Short pin 39 and pin 40 of U1600. Connect oscilloscope to pin 39 of U1600. Adjust R1606 for minimum response. Return JW212 to circuit.

Separation

Select pilot, 300Hz audio frequency, and right modulating signal on generator. Connect an oscilloscope to pin 35 of U1600, adjust R1609 for minimum. Change audio frequency to 8kHz. Adjust R1611 for minimum. Repeat until no further decrease is obtained.

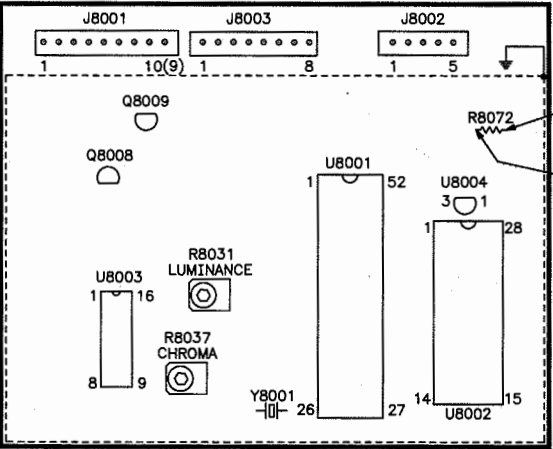
NEW CIRCUIT

VERTICAL CIRCUIT

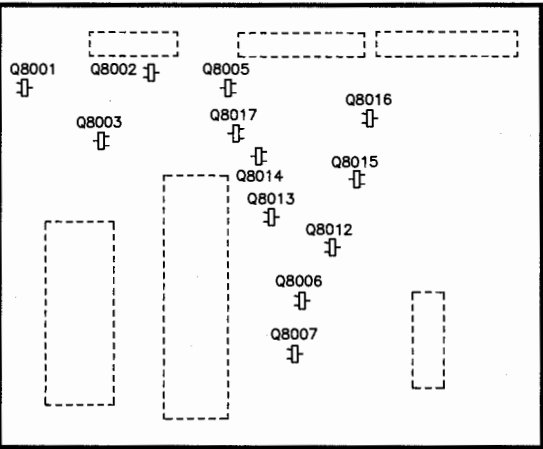
The vertical reset pulse from pin 29 of U1001 turns on Q4505 which allows C4518 and C4519 to discharge thru R4504 and resets Q4506. When Q4505 is turned off, C4518 and C4519 charge thru R4507. R4522 adjusts the amount of voltage to C4518 and C4519. This causes a vertical ramp signal to be applied to pin 3 of U4501. Current for vertical deflection is supplied from pins 2 and 3 of T4401. During horizontal retrace, pin 2 of T4401 is more positive than pin 3 of T4401 which causes upward deflection. During horizontal trace, pin 2 of T4401 is more negative than pin 3 of T4401 which causes downward deflection. The net current is controlled by the on and off time of SCR501. U4501 controls the on and off time of SCR501. A horizontal ramp signal is applied to pin 2 of U4501. When the voltage at pin 3 of U4501 exceeds the voltage at pin 2 of U4501, SCR501 is turned on which allows negative current flow thru the yoke.

PLACEMENT CHART

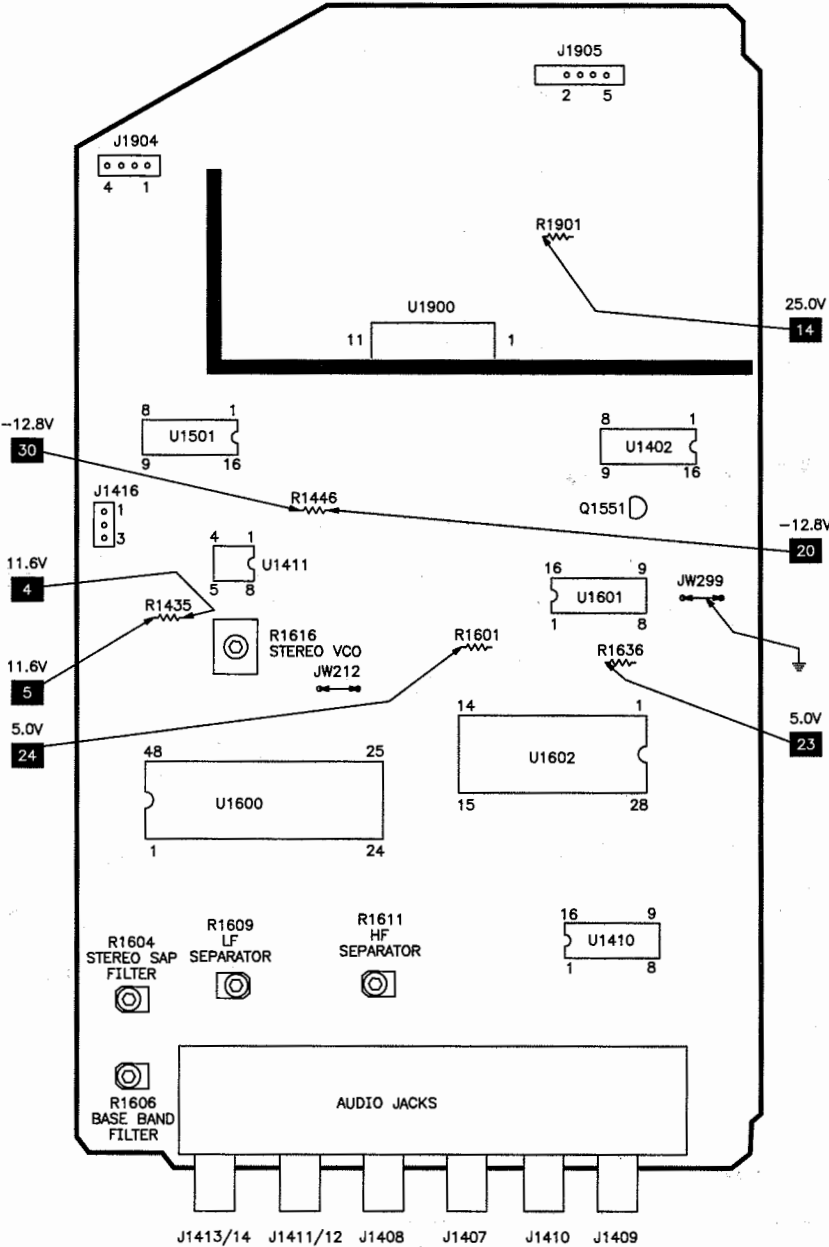
PIP BOARD - TOP VIEW



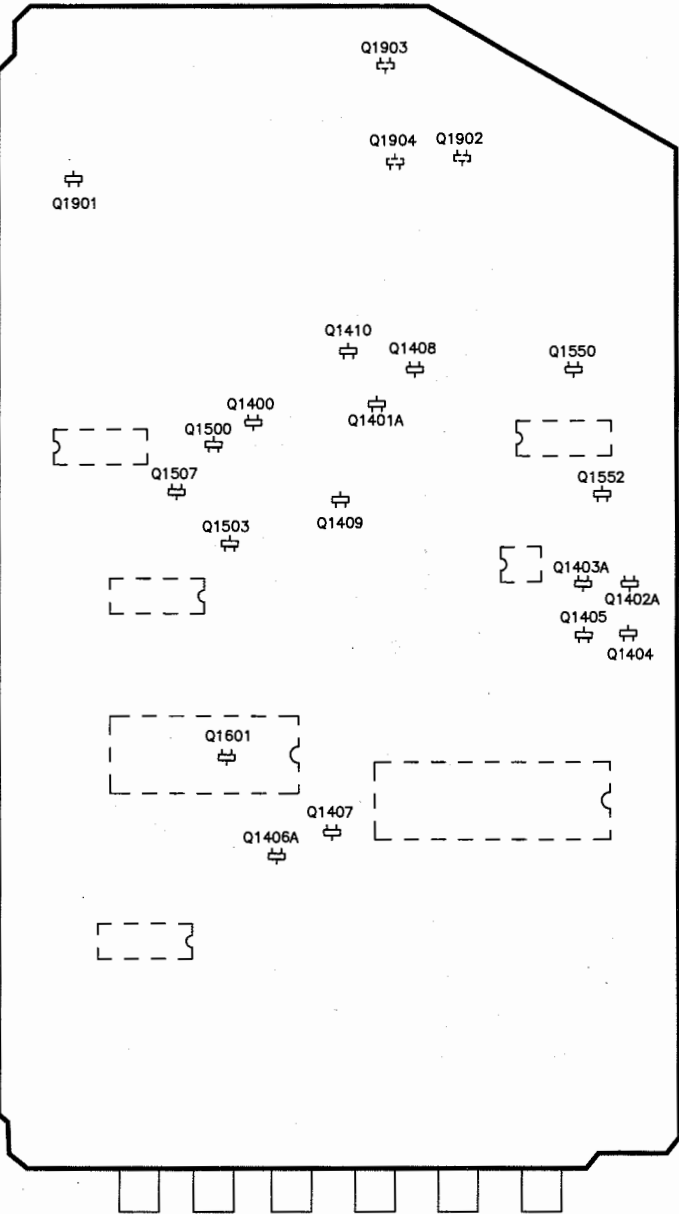
PIP BOARD - BOTTOM VIEW



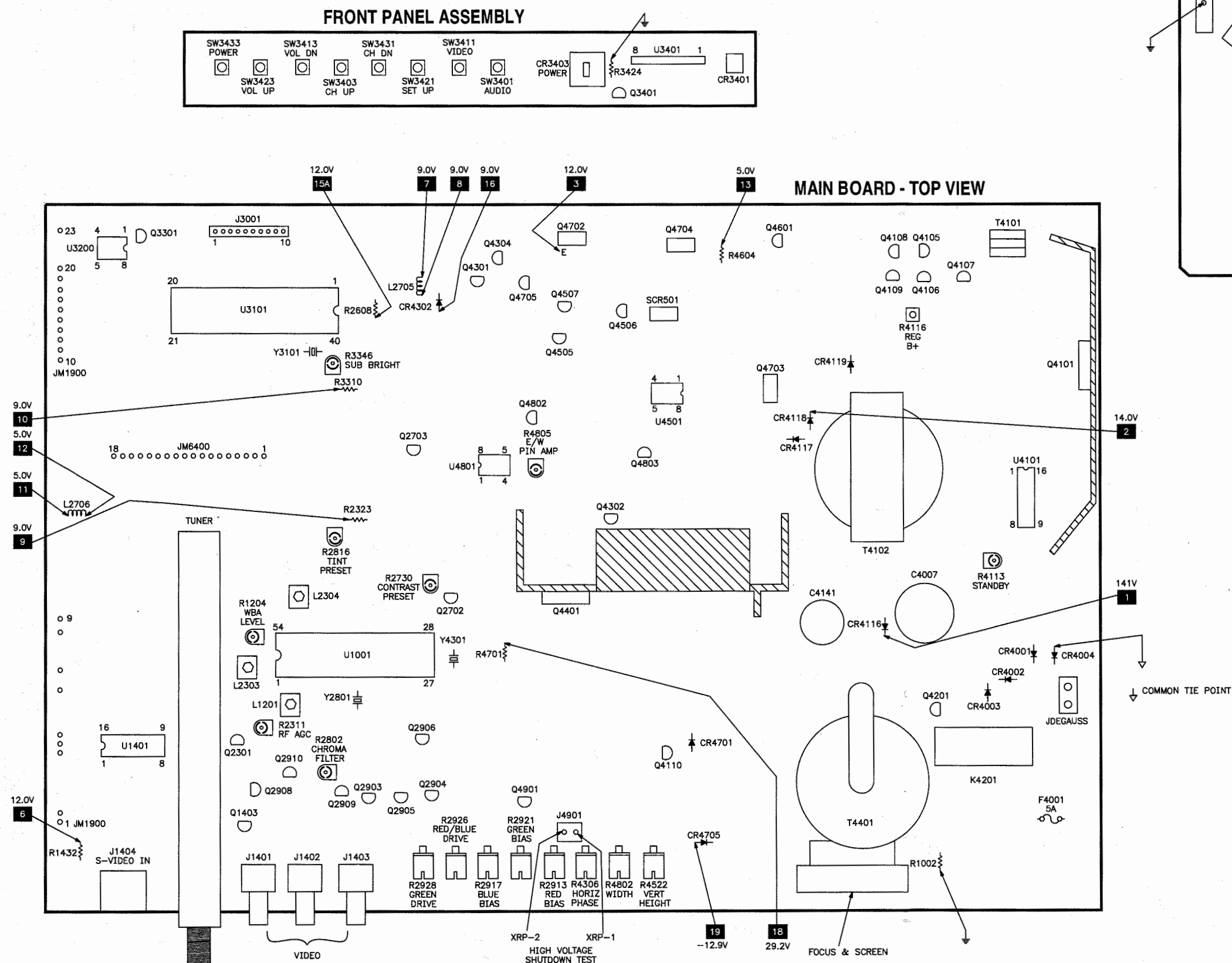
SRS AUDIO 5 WATT BOARD - TOP VIEW



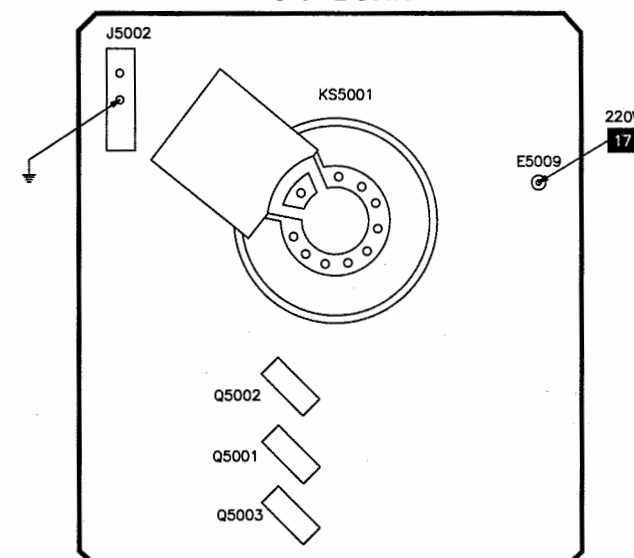
SRS AUDIO 5 WATT BOARD - BOTTOM VIEW



PLACEMENT CHART continued



CRT BOARD



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 noted otherwise.

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.

Volts measured with digital meter and a 1000 μ V 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.

PROSCAN
MODEL PS27123 (CHASSIS CTC169CG5)

REAR PANEL

Q6421

U6402

1

8

R6481

12.0V

15B

11.6V

25

Q6426

R6488 SYNC LEVEL

U6401

21

20

12

40

1

Y6401

R6421 REF VOLTAGE

Q6402

5.0V

21

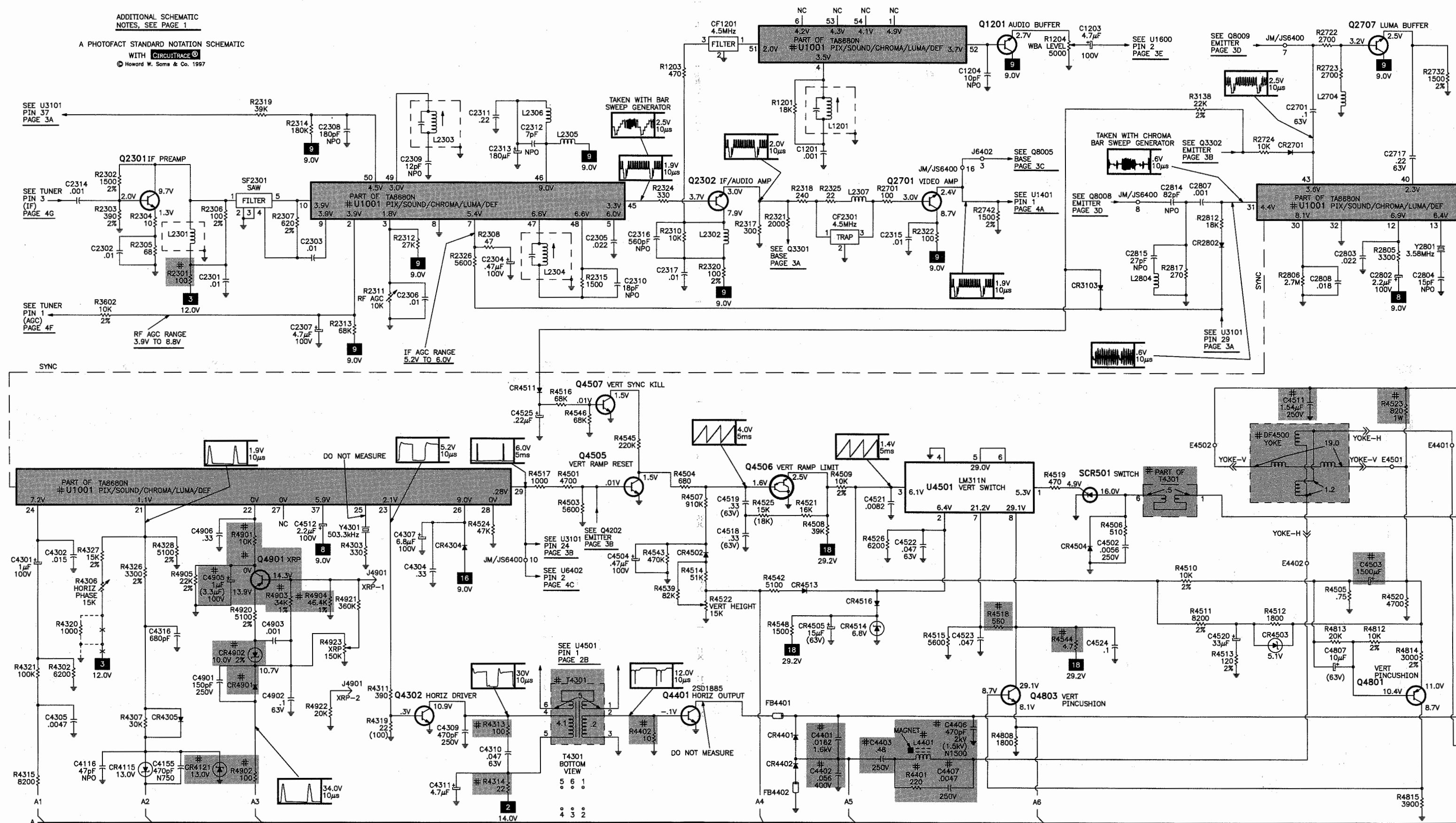
Ground

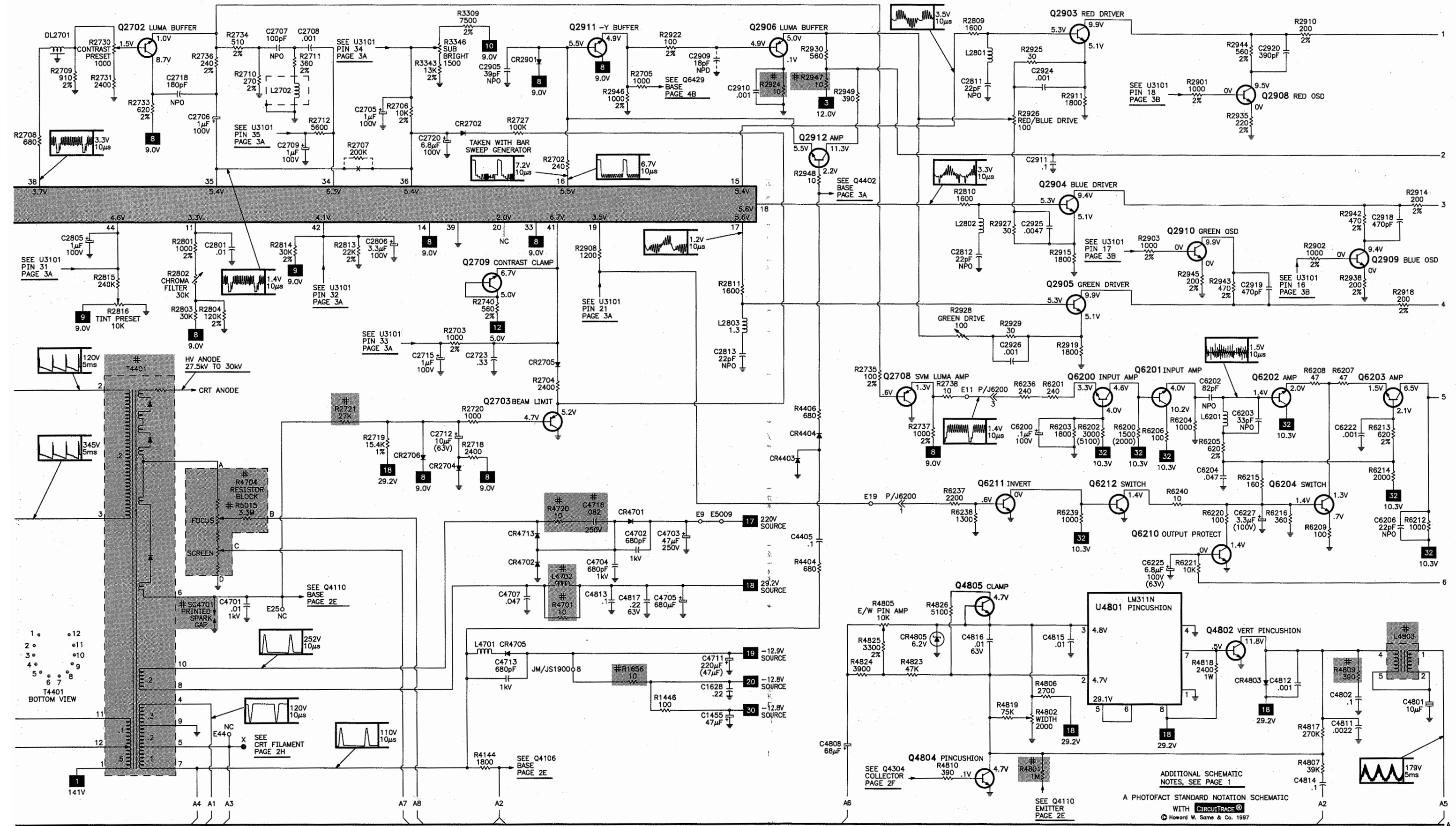
Q6201 Q6211
 Q6202 Q6212
 Q6204 Q6200
 Q6203
 Q6210

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 1

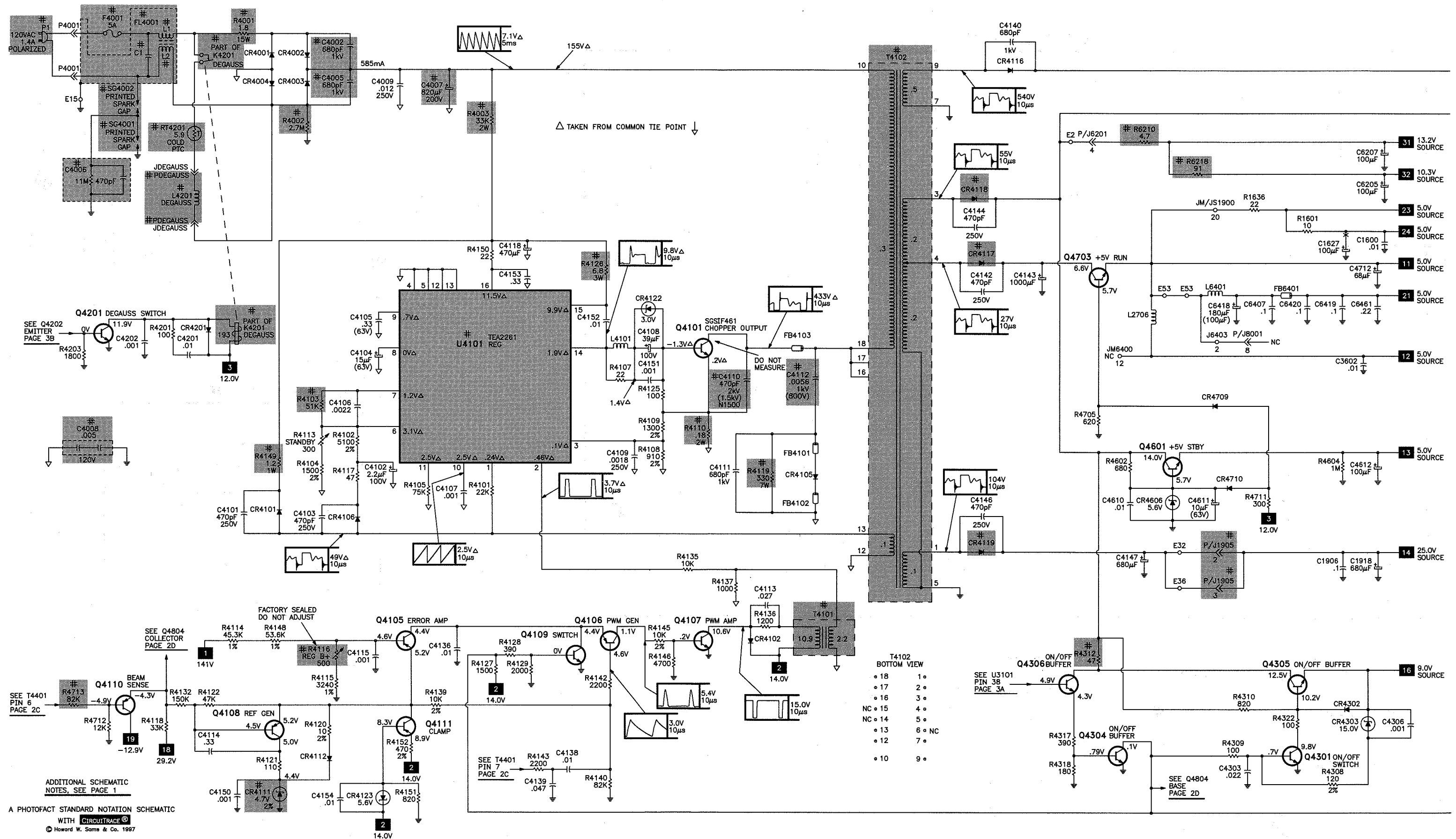
A PHOTOFACT STANDARD NOTATION SCHEMATIC

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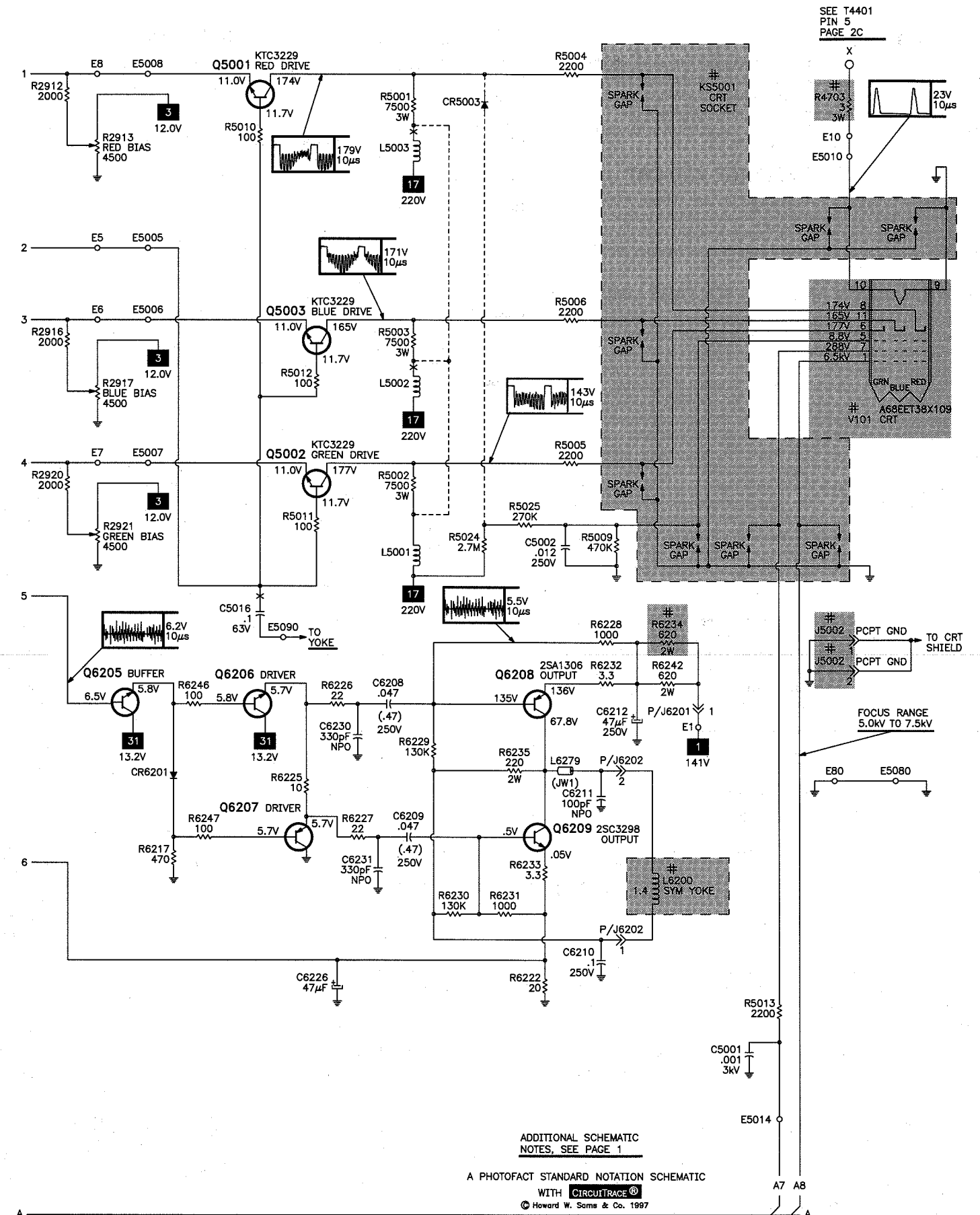


TELEVISION SCHEMATIC continued

POWER SUPPLY SCHEMATIC



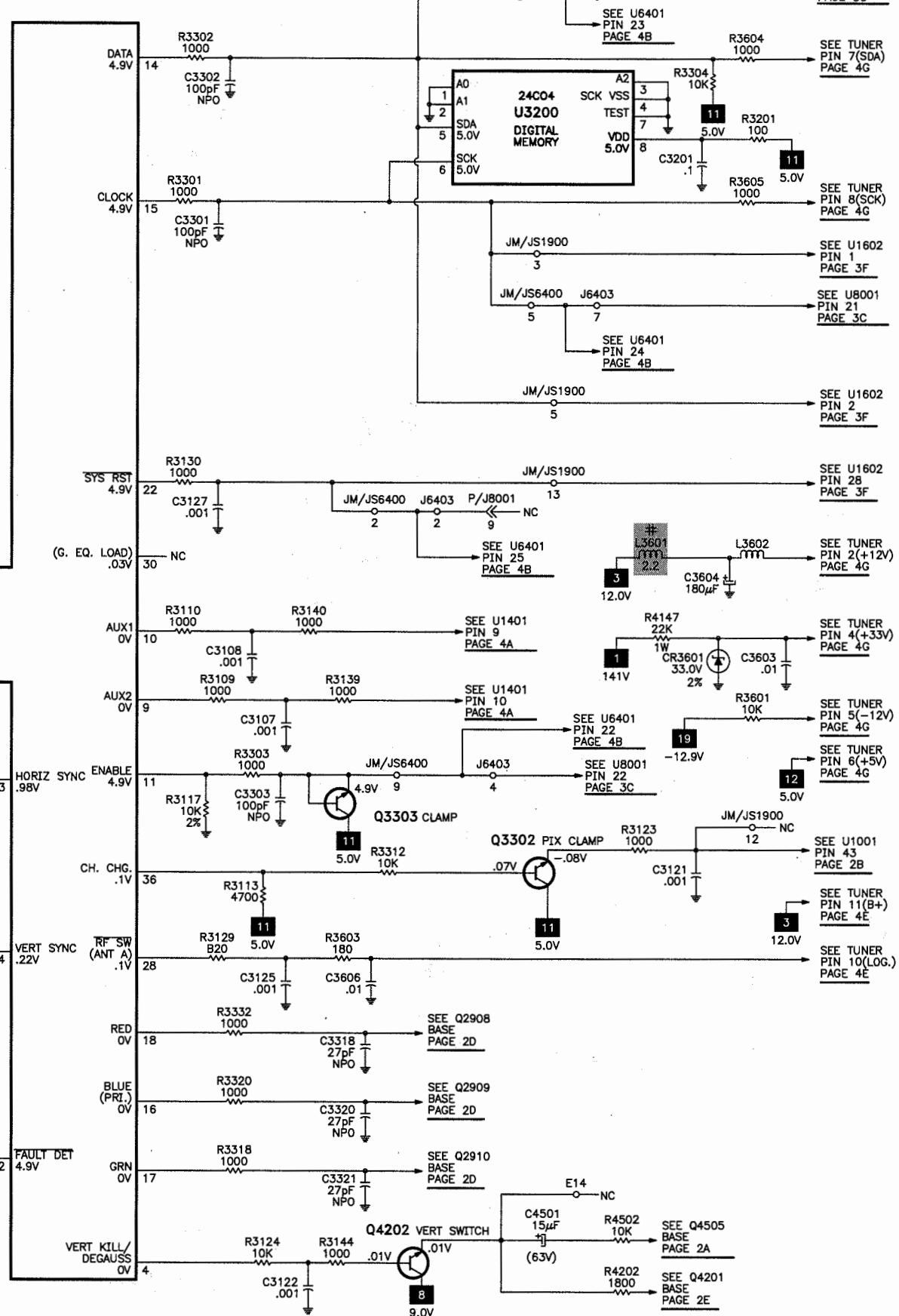
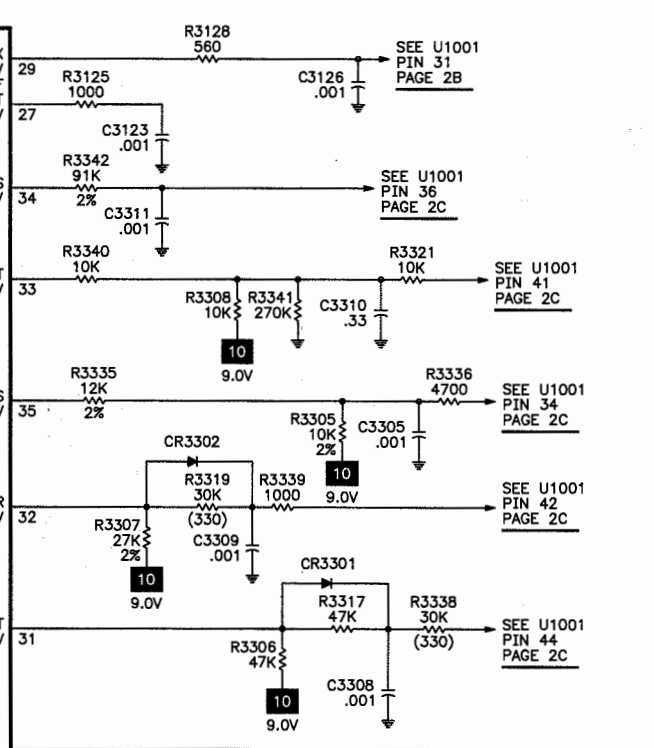
CRT SCHEMATIC



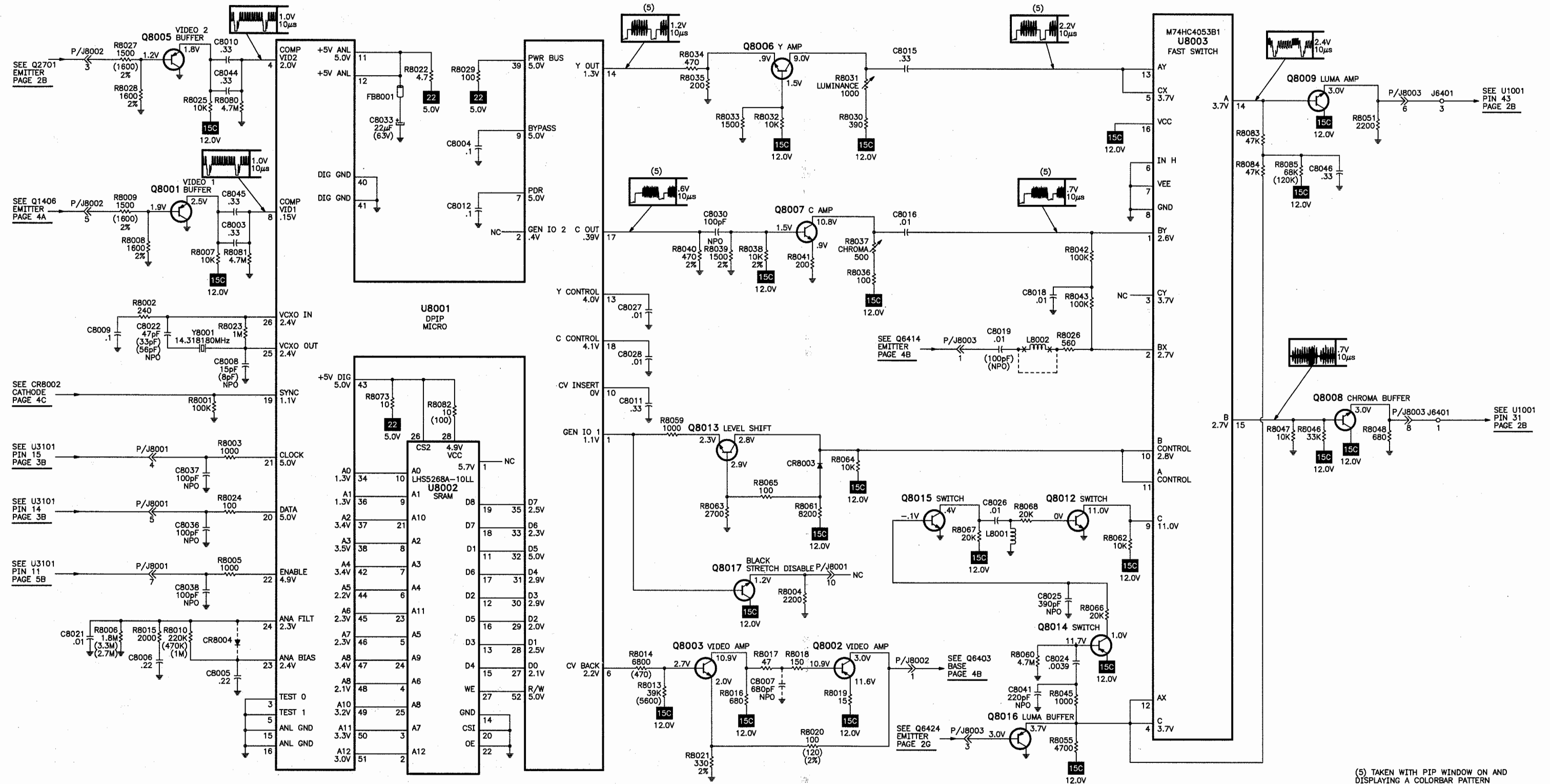
MODEL PS27123 (CHASSIS CTC169CG5)

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 1

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PIP SCHEMATIC



(5) TAKEN WITH PIP WINDOW ON AND DISPLAYING A COLORBAR PATTERN

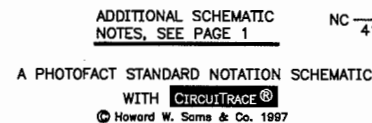
ADDITIONAL SCHEMATIC NOTES, SEE PAGE 1

A PHOTOFAC STANDARD NOTATION SCHEMATIC

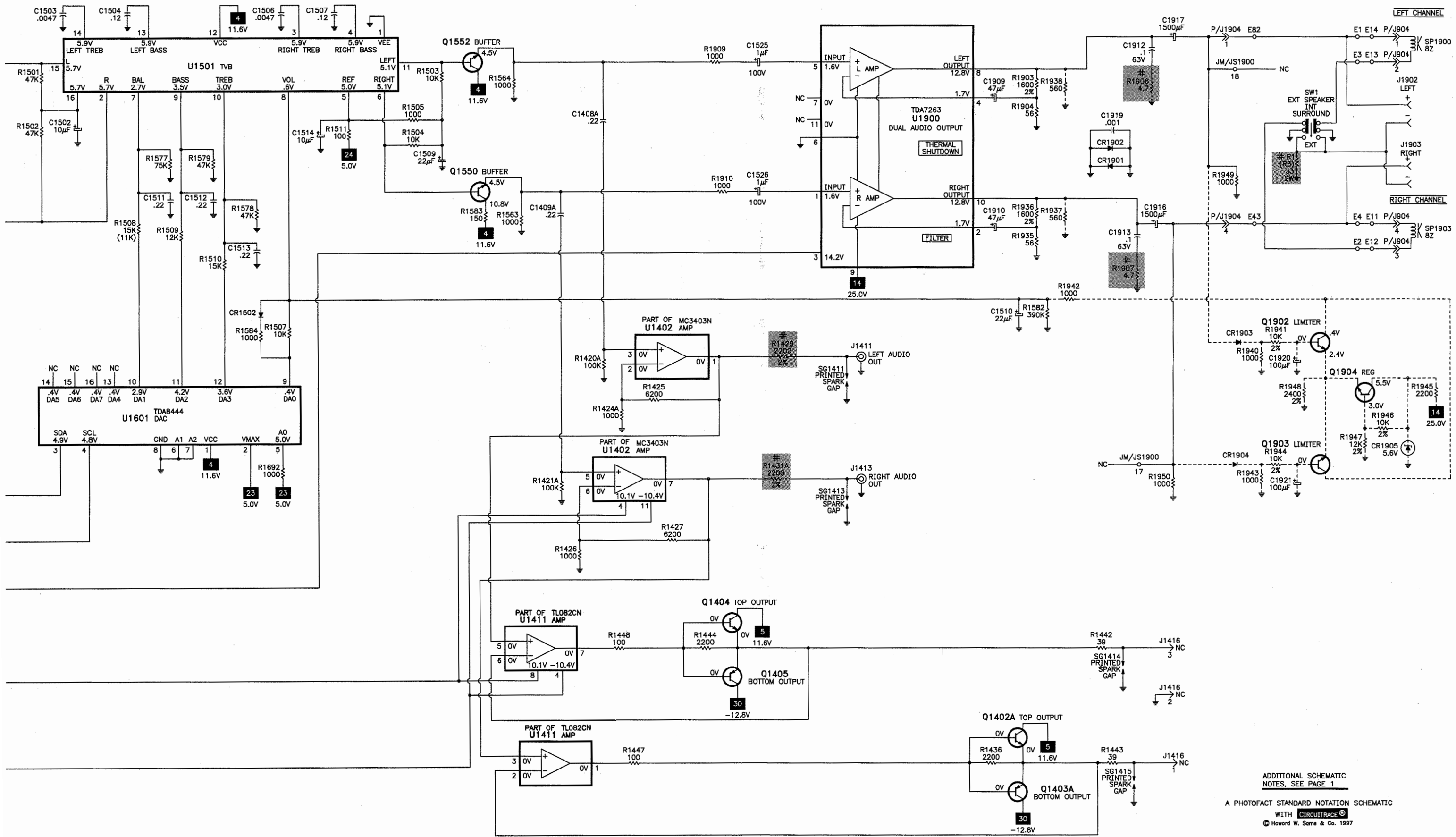
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SEE Q120
EMITTER
PAGE 2B



AUDIO SCHEMATIC continued



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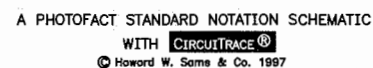
ADDITIONAL SCHEMATIC
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G

H

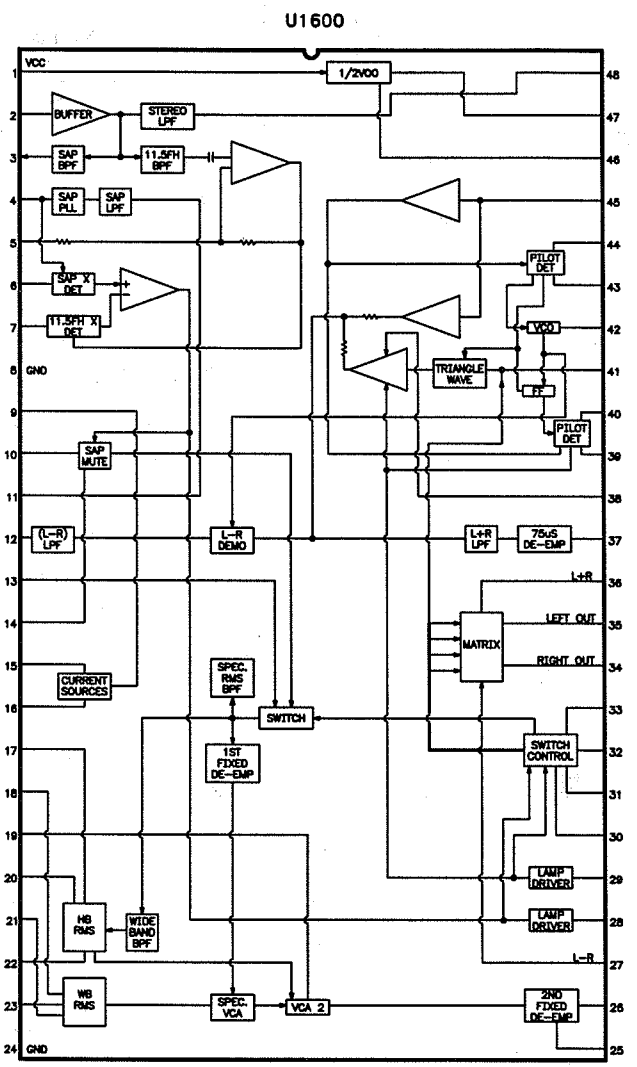
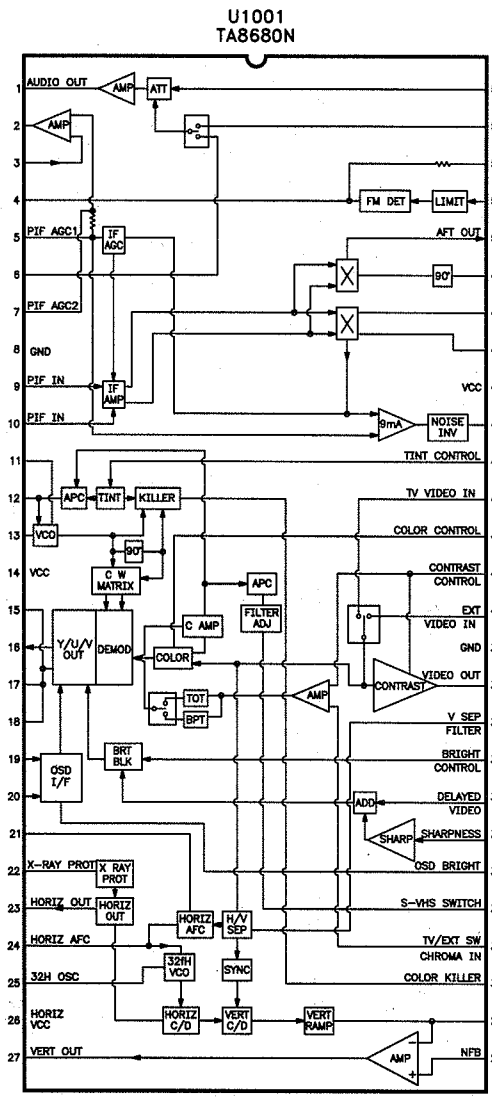
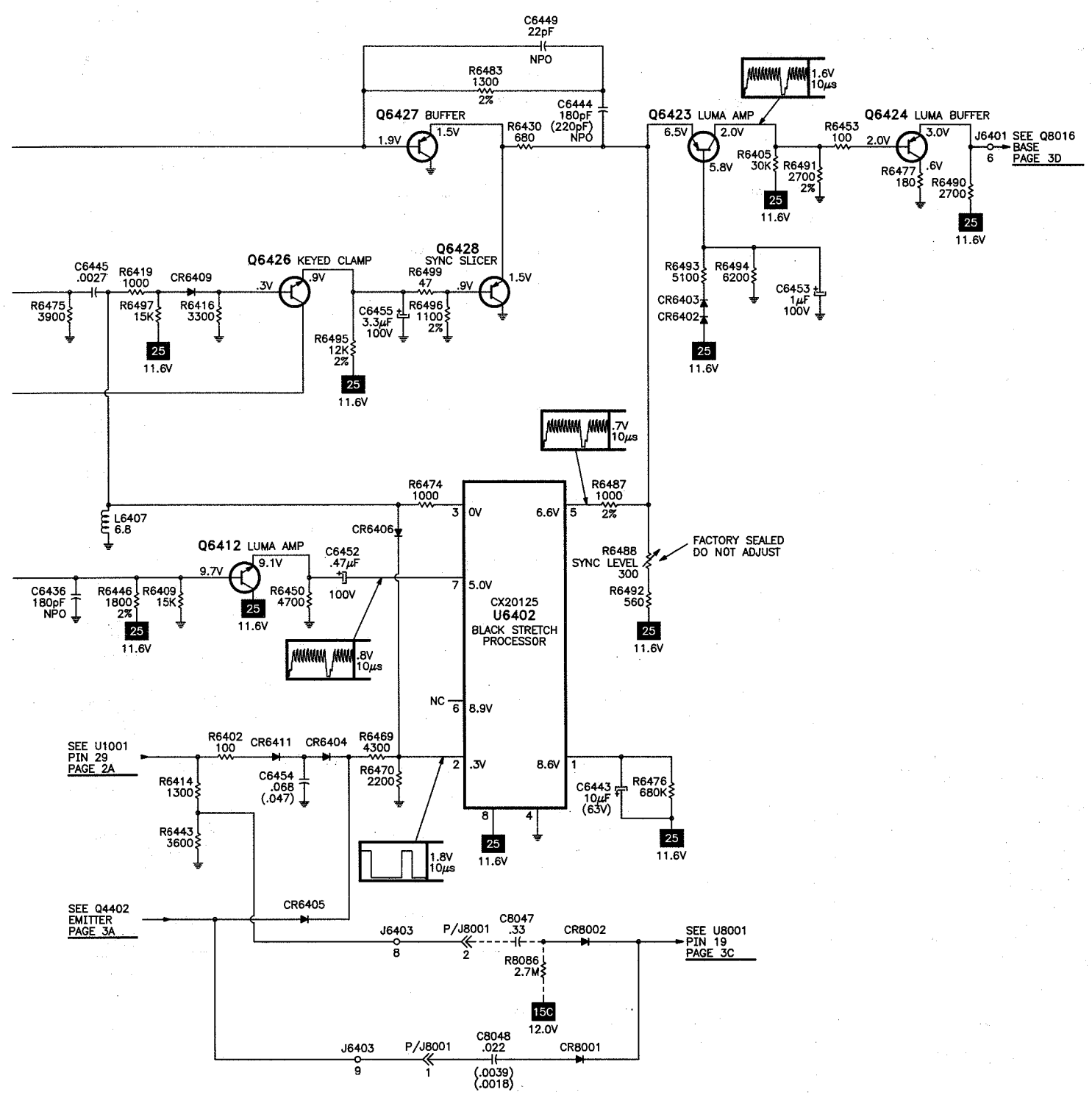
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DIGITAL COMB FILTER SCHEMATIC

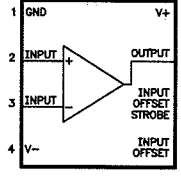


C
DIGITAL COMB FILTER SCHEMATICcontinued

IC FUNCTIONS

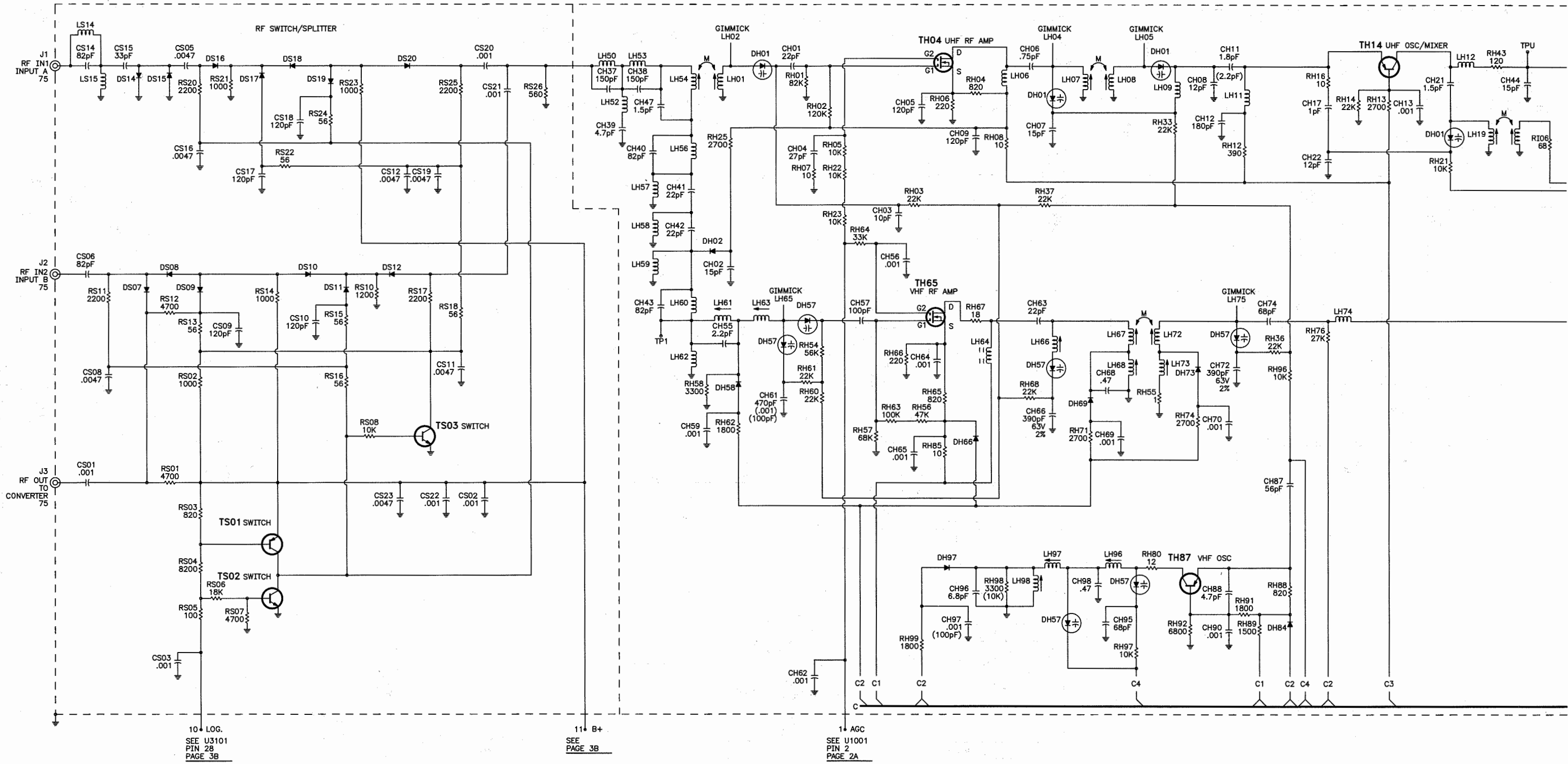


U4501, U4801
LM311M



ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 1

RF SWITCH / SPLITTER, TUNER SCHEMATIC

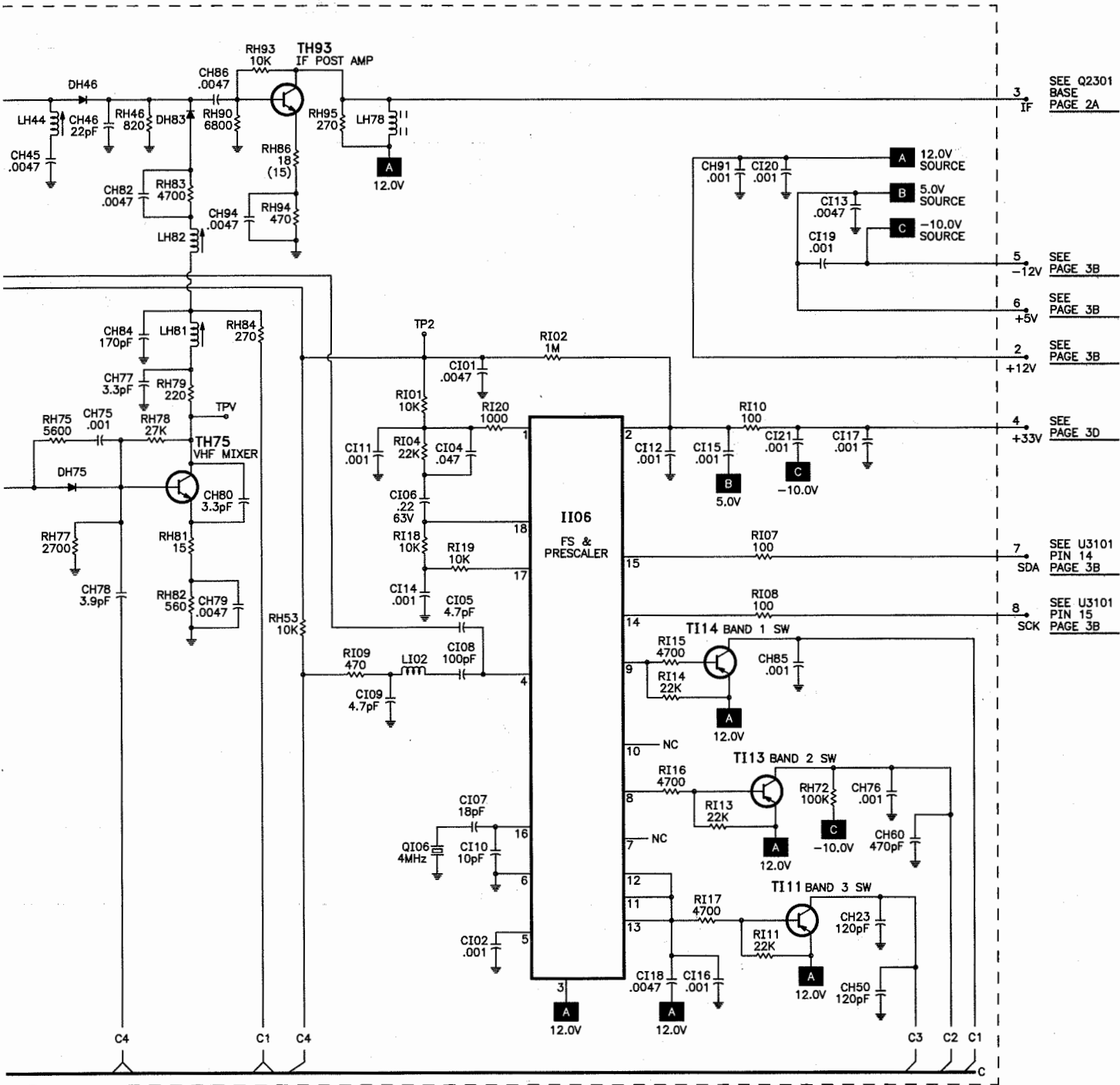


ADDITIONAL SCHEMATIC
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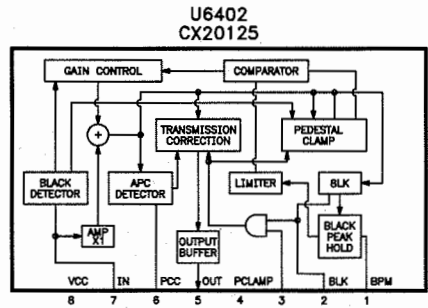
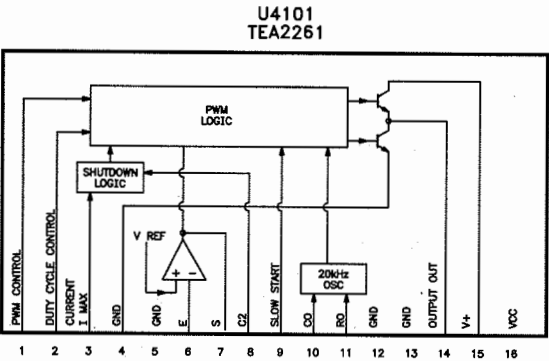
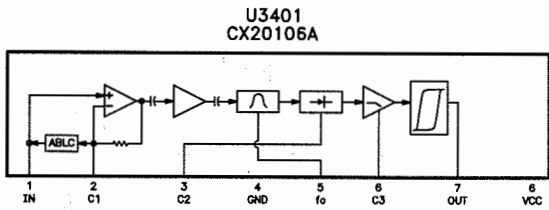
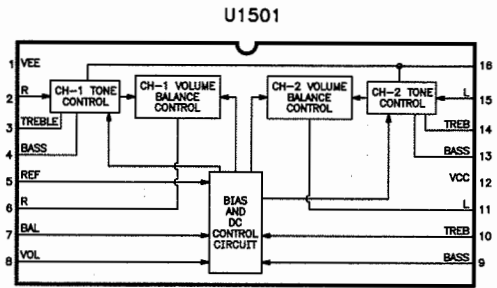
TUNER SCHEMATIC continued

IC FUNCTIONS continued



ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 1

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PROSCAN

MODEL PS27123 (CHASSIS CTC169CG5)

PARTS LIST

SEMICONDUCTORS

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
CR1401 Thru					
CR1404	-	176746	NTE5011A	ECG5011A	SK5A6
CR1405	-	192848	NTE5018A	ECG5018A	SK9A1
CR1501, 02	-	164717	NTE519	ECG519	SK3100
CR1901, 02	-	147015	NTE125	ECG125	SK5010A
CR1903, 04	-	164717	NTE519	ECG519	SK3100
CR1905	-	161081	NTE5011T1	ECG5011T1	SK9968
CR2701, 02	-	164717	NTE519	ECG519	SK3100
CR2704, 05, 06	-	164717	NTE519	ECG519	SK3100
CR2802	-	164717	NTE519	ECG519	SK3100
CR2901	-	164717	NTE519	ECG519	SK3100
CR3101	-	176746	NTE5011A	ECG5011A	SK5A6
CR3102, 03	-	164717	NTE519	ECG519	SK3100
CR3301, 02	-	164717	NTE519	ECG519	SK3100
CR3401	-	150711	-	-	-
CR3402	-	182827	NTE5010A	ECG5010A	SK5A1
CR3403	-	175393	-	-	-
CR3601	-	200155	-	-	-
CR4001 Thru					
CR4004	-	147015	NTE125	ECG125	SK5010A
CR4101	-	207878	-	-	-
CR4102	-	164717	NTE519	ECG519	SK3100
CR4105	-	207878	-	-	-
CR4106	-	176296	NTE125	ECG125	SK5010A
# CR4111	-	202055	NTE5577	ECG5577	SK6727
CR4112	-	164874	NTE177	ECG177	SK9091
CR4115	-	136634	NTE143A	ECG143A	SK13V
CR4116	-	200157	NTE142A	ECG142A	SK12V
# CR4117	-	176296	NTE125	ECG125	SK5010A
# CR4118, 19	-	164590	NTE580	ECG580	SK5036
# CR4121	-	136634	NTE143A	ECG143A	SK13V
CR4122	-	200158	-	-	-
CR4123	-	176746	NTE5011A	ECG5011A	SK5A6
CR4201	-	164717	NTE519	ECG519	SK3100
CR4302	-	164717	NTE519	ECG519	SK3100
CR4303	-	161871	NTE145A	ECG145A	SK15V
CR4304, 05	-	164717	NTE519	ECG519	SK3100
CR4401	-	198596	-	-	-
CR4402	-	164589	NTE558	ECG558	SK3998
CR4403	-	139706	NTE177	ECG177	SK9091
CR4404	-	164717	NTE519	ECG519	SK3100
CR4502	-	139706	NTE177	ECG177	SK9091
CR4503	-	146320	NTE135A	ECG135A	SK5V1
CR4504	-	164589	NTE558	ECG558	SK3998
CR4511, 13	-	164717	NTE519	ECG519	SK3100
CR4514	-	132616	NTE5071A	ECG5071A	SK6V8
CR4516	-	164717	NTE519	ECG519	SK3100
CR4606	-	161081	NTE5011T1	ECG5011T1	SK9968
CR4701	-	176296	NTE125	ECG125	SK5010A
CR4702	-	153672	NTE552	ECG552	SK9000
CR4705	-	176296	NTE125	ECG125	SK5010A
CR4709	-	196062	NTE519	ECG519	SK3100
CR4710	-	139706	NTE177	ECG177	SK9091
CR4712	-	209741	-	-	-
CR4713	-	153672	NTE552	ECG552	SK9000
CR4803	-	176296	NTE125	ECG125	SK5010A
CR4805	-	138974	NTE137A	ECG137A	SK6V2
CR4806	-	164717	NTE519	ECG519	SK3100
# CR4901	-	157301	NTE177	ECG177	SK9091
# CR4902	-	159429	NTE5019T1	ECG5019T1	SK9970
CR5003	-	139706	NTE177	ECG177	SK9091
	-	174489	NTE177	ECG177	SK9091
CR6201	-	164717	NTE519	ECG519	SK3100
CR6401	-	129903	NTE134A	ECG134A	SK3V6
CR6402 Thru					
CR6405	-	164717	NTE519	ECG519	SK3100

For SAFETY use only equivalent replacement part.

SEMICONDUCTORS continued

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
CR6406	-	201133	-	-	-
CR6409, 11	-	164717	NTE519	ECG519	SK3100
CR8001 Thru					
CR8004	-	201133	-	-	-
Q1201	-	215495	-	-	-
Q1400	-	179740	NTE2406*	ECG2406*	SK10097*
Q1401	-	215496	-	-	-
Q1401A	-	179740	NTE2406*	ECG2406*	SK10097*
Q1402	-	215495	-	-	-
Q1402A	-	179740	NTE2406*	ECG2406*	SK10097*
Q1403	-	143806	NTE159	ECG159	SK3466
Q1403A	-	179741	NTE2407*	ECG2407*	SK10098*
Q1404	-	179740	NTE2406*	ECG2406*	SK10097*
Q1405	-	179741	NTE2407*	ECG2407*	SK10098*
Q1406	-	215495	-	-	-
Q1406A	-	179741	NTE2407*	ECG2407*	SK10098*
Q1407, 08	-	179741	NTE2407*	ECG2407*	SK10098*
Q1409	-	179740	NTE2406*	ECG2406*	SK10097*
Q1410	-	179741	NTE2407*	ECG2407*	SK10098*
Q1500	-	179741	NTE2407*	ECG2407*	SK10098*
Q1503	-	179740	NTE2406*	ECG2406*	SK10097*
Q1507	-	179741	NTE2407*	ECG2407*	SK10098*
Q1550	-	179740	NTE2406*	ECG2406*	SK10097*
Q1551	-	192849	-	-	-
Q1552	-	179740	NTE2406*	ECG2406*	SK10097*
Q1601	-	179740	NTE2406*	ECG2406*	SK10097*
Q1901 Thru					
Q1904	-	179740	NTE2406*	ECG2406*	SK10097*
Q2301	-	146848	NTE229*	ECG229*	SK3246A*
Q2302	-	215495	-	-	-
Q2701	-	215495	-	-	-
Q2702	-	146847	NTE123AP	ECG123AP	SK3854
Q2703	-	143806	NTE159	ECG159	SK3466
Q2707	-	215495	-	-	-
Q2708	-	215496	-	-	-
Q2709	-	215495	-	-	-
Q2903, 04, 05	-	176980	NTE123AP	ECG123AP	SK3854
Q2906	-	177789	NTE32*	ECG32*	SK3867A*
Q2908, 09, 10	-	176980	NTE123AP	ECG123AP	SK3854
Q2911	-	215495	-	-	-
Q2912	-	219412	-	-	-
Q3101	-	215496	-	-	-
Q3102	-	215495	-	-	-
Q3301	-	145410	NTE159	ECG159	SK3466
Q3302, 03	-	215495	-	-	-
Q3304	-	215496	-	-	-
Q3401	-	146847	NTE123AP	ECG123AP	SK3854
Q4101	-	200165	-	-	-
Q4105, 06	-	143802	NTE159	ECG159	SK3466
Q4107	-	146847	NTE123AP	ECG123AP	SK3854
Q4108	-	143802	NTE159	ECG159	SK3466
Q4109	-	146847	NTE123AP	ECG123AP	SK3854
Q4110	-	143802	NTE159	ECG159	SK3466
Q4111	-	215496	-	-	-
Q4201	-	146847	NTE123AP	ECG123AP	SK3854
Q4202	-	215495	-	-	-
Q4301	-	146847	NTE123AP	ECG123AP	SK3854
Q4302	-	200168	-	-	-
Q4304	-	146847	NTE123AP	ECG123AP	SK3854
Q4305, 06	-	215495	-	-	-
Q4401	-	200167	NTE2324%	ECG2324%	SK10136
Q4402	-	215495	-	-	-
Q4505	-	146847	NTE123AP	ECG123AP	SK3854
Q4506	-	148970	-	-	-
Q4507	-	146847	NTE123AP	ECG123AP	SK3854

* Lead configuration may vary from original.
% Use insulating hardware supplied with replacement.

SEMICONDUCTORS continued

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q4601	-	146847	NTE123AP	ECG123AP	SK3854
Q4702, 03, 04	-	157627	NTE54	ECG54	SK9366
Q4705	-	146847	NTE123AP	ECG123AP	SK3854
Q4801	-	215496	-	-	-
Q4802	-	200168	-	-	-
Q4803	-	146847	NTE123AP	ECG123AP	SK3854
Q4804, 05	-	215495	-	-	-
# Q4901	-	147665	NTE159	ECG159	SK3466
Q5001, 02, 03	-	208434	-	ECG376	-
Q6200 Thru					
Q6204	-	215495	-	-	-
Q6205	-	146847	NTE123AP	ECG123AP	SK3854
Q6206	-	177788	NTE31*	ECG31*	SK3866A*
Q6207	-	177789	NTE32*	ECG32*	SK3867A*
Q6208	-	204303	-	-	-
Q6209	-	204302	-	-	-
Q6210, 11, 12	-	215495	-	-	-
Q6401	-	179741	NTE2407*	ECG2407*	SK10098*
Q6402	-	146847	NTE123AP	ECG123AP	SK3854
Q6403	-	179740	NTE2406*	ECG2406*	SK10097*
Q6404, 05	-	179741	NTE2407*	ECG2407*	SK10098*
Q6406 Thru					
Q6414	-	179740	NTE2406*	ECG2406*	SK10097*
Q6421	-	146847	NTE123AP	ECG123AP	SK3854
Q6422 Thru					
Q6425	-	179741	NTE2407*	ECG2407*	SK10098*
Q6426	-	146847	NTE123AP	ECG123AP	SK3854
Q6427, 28, 29	-	179741	NTE2407*	ECG2407*	SK10098*
Q6430	-	179740	NTE2406*	ECG2406*	SK10097*
Q8001, 02	-	179741	NTE2407*	ECG2407*	SK10098*
Q8003	-	179740	NTE2406*	ECG2406*	SK10097*
Q8005	-	179741	NTE2407*	ECG2407*	SK10098*
Q8006, 07	-	179740	NTE2406*	ECG2406*	SK10097*
Q8008, 09	-	146847	NTE123AP	ECG123AP	SK3854
Q8012, 13	-	179740	NTE2406*	ECG2406*	SK10097*
Q8014	-	179741	NTE2407*	ECG2407*	SK10098*
Q8015	-	179740	NTE2406*	ECG2406*	SK10097*
Q8016	-	179741	NTE2407*	ECG2407*	SK10098*
Q8017	-	179740	NTE2406*	ECG2406*	SK10097*
SCR501	-	194320	-	-	-
# U1001	-	TA8680N	NTE7010	ECG7010	SK10479
U1401	-	HCF4052BE	NTE4052B	ECG4052B	SK4052B
U1402	-	MC3403N	-	ECG710	SK3102
U1410	-	HCF4052BE	NTE4052B	ECG4052B	SK4052B
U1411	-	TL082CN	-	-	-
U1501	-	176226	NTE1576	ECG1576	SK7672
U1600	-	190484	-	-	-
U1601	-	204290	-	-	-
U1602	-	207828	-	-	-
U1900	-	TDA7263	-	-	-
U3101	-	24C04	-	-	-
U3200	-	219829	-	-	-
U3401	-	CX20106A	-	-	-
# U4101	-	TEA2261	-	-	-
U4501	-	LM311N	NTE922M	ECG922M	SK3668
U4801	-	LM311N	NTE922M	ECG922M	SK3668
U6401	-	M50572SAP	-	-	-
U6402	-	CX20125	-	-	-
U8001	-	204279	-	-	-
U8002	-	LH5268A-10LL	-	-	-
U8003	-	M74HC4053B1	-	-	-
U8004	-	78L05	-	-	-

For SAFETY use only equivalent replacement part.
* Lead configuration may vary from original.

PARTS LIST continued

SEMICONDUCTORS continued

(Select the replacement that gives the best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
RF SWITCH / SPLITTER					
DS07	-	200472	-	-	-
DS08	-	200555	-	-	-
DS09	-	200471	-	-	-
DS10	-	200555	-	-	-
DS11	-	203780	NTE1128	ECG1128	SK3488
DS12	-	200555	-	-	-
DS14, 15	-	203781	NTE1130	ECG1130	SK3478
DS16	-	200555	-	-	-
DS17	-	200471	-	-	-
DS18	-	200555	-	-	-
DS19	-	200471	-	-	-
DS20	-	200555	-	-	-
TS01	-	200556	-	-	-
TS02, 03	-	203793	-	-	-
TUNER					
DH01	-	200553	-	-	-
DH02	-	200471	-	-	-
DH46	-	200472	-	-	-
DH57	-	200554	-	-	-
DH58	-	200471	-	-	-
DH66	-	200472	-	-	-
DH69, 73	-	200471	-	-	-
DH75	-	200555	-	-	-
DH83, 84	-	200472	-	-	-
DH97	-	200471	-	-	-
II06	-	200558	-	-	-
TH04	-	200566	-	-	-
TH14	-	200567	-	-	-
TH65	-	200566	-	-	-
TH75	-	200557	-	-	-
TH87	-	200574	-	-	-
TH93	-	200557	-	-	-
TI111, 13, 14	-	200556	-	-	-

CABINET PARTS

Item	Mfr. Part No.
Cabinet Back	MK1728
Cabinet Front	MK1727
# CRT Mounting Screw	180834
# Degaussing Hanger Clip	189686
# Degaussing Hanger Clip	220093
Jack Panel	206752
Overlay, Jack Panel	203522
Overlay, Jack Panel S-Video	203755
Overlay, Jack Panel Tuner	203772
Window, IR	225640

REMOTE TRANSMITTER

Battery Cover	225633
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For SAFETY use only equivalent replacement part.

CAPACITORS & ELECTROLYTICS

Item No.	Rating	Mfr. Part No.
C1 (1)	-	-
C1204	10pF 1% 50V NPO	174402
C1407	150pF 5% 50V NPO	181091
C1616	2.2µF 20% 50V NP	190527
	2.2µF 20% 100V NP	195691
C1617	3.3µF 20% 50V NP	190528
	3.3µF 20% 100V NP	151119
C1618	4.7µF 20% 50V NP	190529
	4.7µF 20% 100V NP	189992
C2308	180pF 5% 50V NPO	190543
C2309	12pF 5% 50V NPO	174403
C2310	18pF 10% 50V NPO	194440
C2312	7pF ±.5pF 50V NPO	174401
C2316	560pF 5% 50V NPO	200139
C2707	100pF 5% 50V NPO	174412
C2718	180pF 5% 50V NPO	190543
C2724	180pF 5% 50V NPO	193338
C2804	15pF 5% 50V NPO	174404
C2811, 12, 13	22pF 5% 50V NPO	194903
C2814	82pF 5% 50V NPO	176828
C2815	27pF 10% 50V NPO	192050
C2905	39pF 5% 50V NPO	181090
C2909	18pF 5% 50V NPO	174405
C3110	22pF 5% 50V NPO	194903
C3119, 20	33pF 5% 50V NPO	174408
C3128	560pF 5% 50V NPO	200139
C3144	560pF 10% 50V NPO	202904
C3145	100pF 10% 50V NPO	193340
C3301, 02	100pF 5% 50V NPO	174412
C3303	100pF 5% 50V NPO	193340
C3314	220pF 5% 50V NPO	178188
C3315	100pF 5% 50V NPO	174412
C3316	560pF 10% 50V NPO	202904
C3317	15pF 5% 50V NPO	202907
C3318, 20, 21	27pF 5% 50V NPO	174407
C3323	82pF 5% 50V NPO	192049
# C4002, 05	680pF 20% 1kV	190538
# C4007	820µF 10% 200V	190561
# C4008	.005 20% 120V	195697
# C4110	470pF 5% 2kV N1500	-
	470pF 5% 1.5kV N1500	143242
C4111	680pF 20% 1kV	190538
# C4112	.0056 5% 1kV	-
	.0056 5% 800V	201619
C4116	47pF 5% 50V NPO	143867
C4140	680pF 20% 1kV	190538
# C4141	470µF 20% 180V	200147
C4155	470pF 5% 50V N750	210893
# C4401	.0162 1.6kV	206009
# C4402	.056 5% 400V	200149
# C4403	.48 5% 250V	197518
# C4406	470pF 5% 2kV N1500	-
	470pF 5% 1.5kV N1500	143242
# C4407	.0047 10% 250V	190534
# C4503	1500µF 10% 35V	177534
# C4511	1.54µF 5% 250V	200152
C4701	.01 20% 1kV	137583
C4702, 04, 13	680pF 20% 1kV	190538
# C4716	.082 10% 250V	181404
C4801	10µF 20% 50V NP	196060
# C4905	3.3µF 20% 100V	-
	1µF 20% 100V	220998
C5001	.001 10% 3kV	120696
C6202	82pF 5% 50V NPO	176828
C6203	33pF 5% 50V NPO	174408
C6206	22pF 5% 50V NPO	174406

For SAFETY use only equivalent replacement part.

(1) Part of FL4001.

CAPACITORS & ELECTROLYTICS continued

Item No.	Rating	Mfr. Part No.
C6211	100pF 5% 50V NPO	153973
C6230, 31	330pF 5% 50V NPO	181100
C6401	10pF 1% 50V NPO	174402
	15pF 5% 50V NPO	174404
	27pF 5% 50V NPO	174407
C6402	33pF 5% 50V NPO	194911
	10pF 1% 50V NPO	197602
	7pF 1% 50V NPO	197603
C6403	27pF 5% 50V NPO	174407
C6404	56pF 5% 50V NPO	190542
C6409	47pF 5% 50V NPO	210689
	82pF 10% 50V NPO	205547
	39pF 10% 50V NPO	195911
	68pF 5% 50V NPO	193339
C6412	150pF 5% 50V NPO	181091
C6414, 15, 16	100pF 10% NPO 50V	193340
C6424	15pF 5% 50V NPO	174404
C6427	33pF 10% 50V NPO	194911
	27pF 10% 50V NPO	192050
C6431	7pF ±.5pF 50V NPO	174401
C6432	22pF 5% 50V NPO	174406
C6433	5pF ±.5pF 50V NPO	174399
C6434	22pF 5% 50V NPO	174406
	39pF 5% 50V NPO	181090
C6435	39pF 5% 50V NPO	181090
C6436	180pF 5% 50V NPO	190543
C6441	3.3µF 20% 50V NP	190528
C6444	180pF 5% 50V NPO	190543
	220pF 5% 50V NPO	178188
C6449	22pF 10% 50V NPO	194903
C8007	680pF 5% 50V NPO	181845
C8008	15pF 5% 50V NPO	174404
	8pF ±.5pF 50V NPO	181463
C8019	.01 10% 50V	174423
	100pF 5% 50V NPO	193340
C8022	47pF 5% 50V NPO	174409
	33pF 5% 50V NPO	174408
	56pF 5% 50V NPO	190542
C8025	390pF 5% 50V NPO	204274
C8030	100pF 5% 50V NPO	174412
C8036, 37, 38	100pF 5% 50V NPO	174412
C8041	220pF 5% 50V NPO	178188
TUNER		
CH66, 72	390pF 2% 63V	200480

Important Parts Information

- 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.

- Custom Components Corporation (Chek-A-Color)
- NTE Electronics, Inc. (NTE)
- Philips ECG Company (ECG)
- PTS Electronics Corporation (PTS)
- Sencore, Inc.
- Terrell & Nobis (TNI Electronics)
- Thomson Consumer Electronics, Inc. (SK, TCE)

PARTS LIST continued

COILS & TRANSFORMERS			
Item No.	Function/Rating	Mfr. Part No.	
# DF4500 (1)	Yoke Horiz 1mH Vert 19mH	-	
FB4101, 02	Ferrite Bead	152102	
FB4103	Ferrite Bead	153328	
FB4401	Ferrite Bead	204792	
FB4402	Ferrite Bead	206390	
FB6401, 02	Ferrite Bead	181469	
FB8001	Ferrite Bead	181469	
# L1 (2)	-	-	
# L2 (2)	-	-	
L1201	SIF	190504	
L2301	.68µH	195708	
L2302	2.2µH	197616	
L2303	AFT	190506	
L2304	VIF	190503	
L2305	2.2µH	197616	
L2306	-	206035	
L2307	12µH	210687	
L2702	39µH	195710	
L2704	100µH	161243	
L2705	4.7µH	158726	
L2706	10µH	175409	
L2801, 02, 03	22µH	195712	
L2804	-	200161	
L3101	10µH	175409	
# L3601	-	161243	
L3602	-	207880	
L4101	2.2µH	190480	
# L4201	Degaussing	250050	
# L4401	39.5µH Horizontal Linearity	225779	
L4701	47µH	190729	
# L4702	10µH	175409	
# L4803	Pincushion	206391	
L5001	220µH	195707	
L5002	270µH	205222	
L5003	220µH	195707	
# L6200 (1)	Sym Yoke	-	
L6201	-	161243	
L6299	Ferrite Bead	-	
L6401	6.8µH	193056	
	10µH	175409	
L6402	18µH	195711	
	-	160518	
L6403	4.7µH	197614	
L6405	39µH	195710	
L6406	15µH	197613	
L6407	-	176622	
L8001	330µH	196125	
L8002	22µH	195712	
L8003	47µH	195713	
# T4101	Regulator Feedback	200204	
# T4102	Chopper	207884	
# T4301	Horizontal Driver	205196	
# T4401	Horizontal Output	225778	
TUNER			
LH64	3.9µH	200559	
LH78	1.2µH	200481	
# For SAFETY use only equivalent replacement part.			
(1) Bonded to CRT.			
(2) Part of FL4001.			

CONTROLS & RESISTORS			
Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
# R1	33 5% 2W	196014	2W033
R1203	470 2% 1/8W	182628	-
R1204	5000 WBA Level	181113	-
# R1402	430 5% 1/4W	829143	QW143
R1403	3000 2% 1/10W	194917	-
R1404	3000 2% 1/8W	190464	-
# R1406	430 5% 1/4W	829143	QW143
R1409	100 2% 1/8W	181486	-
# R1410	100 5% 1/4W	149602	QW110
R1411	3000 2% 1/10W	194917	-
R1412	1100 2% 1/10W	202586	-
R1413	330 2% 1/8W	181488	-
R1414	2000 2% 1/4W	175321	-
R1417	10K 2% 1/8W	174364	-
R1419	910 2% 1/8W	182627	-
R1420	1300 2% 1/8W	182823	-
R1421	510 2% 1/10W	202585	-
R1422	1100 2% 1/10W	202586	-
R1425	120K 2% 1/8W	180816	-
R1426	470 2% 1/8W	182628	-
R1427	1500 2% 1/8W	181482	-
R1428	330 2% 1/8W	181488	-
# R1429A	2200 2% 1/2W	176632	HW222
R1430	2700 2% 1/4W	176648	-
# R1431A	2200 2% 1/2W	176632	HW222
# R1432	10 5% 1/4W	829010	QW010
# R1452, 54	1000 2% 1/4W	108865	QW210
# R1456, 58	1000 2% 1/4W	108865	QW210
# R1463, 64, 65	47 5% 1/4W	829047	QW047
# R1488, 94	2200 2% 1/2W	176632	HW222
R1604	20K Stereo SAP Filter	191389	-
R1606	50K Base Band Filter	190526	-
R1609	100K LF Separator	181108	-
R1611	250K HF Separator	195951	-
R1616	50K Stereo VCO	190526	-
# R1655	3.3 5% 1/2W	175772	QW3D3
# R1656	10 5% 1/4W	829010	QW010
R1903	1600 2% 1/2W	175311	-
# R1906, 07	4.7 5% 1/4W	147960	QW4D7
R1936	1600 2% 1/2W	175311	-
R1941, 44, 46	10K 2% 1/10W	195937	-
R1947	12K 2% 1/10W	205352	-
R1948	2400 2% 1/10W	205342	-
# R2301	100 5% 1/4W	175325	QW110
R2302	1500 2% 1/8W	181482	-
R2303	390 2% 1/8W	178284	-
R2306	100 2% 1/8W	181486	-
R2307	620 2% 1/8W	181493	-
R2311	10K RF AGC	181107	-
R2320	100 2% 1/8W	181486	-
# R2323	1.2 5% 1/4W	200172	QW1D2
R2703	1000 2% 1/8W	190462	-
R2706	10K 2% 1/8W	174364	-
R2709	910 2% 1/8W	182627	-
R2710	270 2% 1/8W	181481	-
R2711	360 2% 1/8W	202014	-
R2719	15.4K 1% 1/10W	200175	-
# R2721	27K 5% 1/2W	206037	HW327
R2725	750 2% 1/10W	202914	-
R2730	1000 Contrast Preset	181109	-
R2732	1500 2% 1/8W	181482	-
R2733	620 2% 1/8W	181493	-
R2734	510 2% 1/8W	195719	-
R2735	100 2% 1/8W	181486	-
R2736	240 2% 1/8W	190460	-
R2737	1000 2% 1/8W	190462	-
R2740	560 2% 1/8W	182822	-
R2741	3000 2% 1/10W	194917	-
# For SAFETY use only equivalent replacement part.			

CONTROLS & RESISTORS continued			
Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
R2742	1500 2% 1/8W	181482	-
R2801	1000 2% 1/8W	190462	-
R2802	30K Chroma Filter	177366	-
R2804	120K 2% 1/8W	180816	-
R2813	22K 2% 1/8W	174367	EW322
R2814	30K 2% 1/10W	200176	-
R2816	10K Tint Preset	181107	-
R2901, 02, 03	1000 2% 1/8W	190462	-
R2910	200 2% 1/8W	178280	-
R2913	4500 Red Bias	190533	-
R2914	200 2% 1/8W	178280	-
R2917	4500 Blue Bias	190533	-
R2918	200 2% 1/8W	178280	-
R2921	4500 Green Bias	190533	-
R2922	100 2% 1/8W	181486	-
# R2924	10 5% 1/4W	829010	QW010
R2926	100 Red/Blue Drive	190531	-
R2928	100 Green Drive	190531	-
R2935	220 2% 1/8W	181492	-
R2938	200 2% 1/8W	178280	-
R2942, 43	470 2% 1/8W	182628	-
R2944	560 2% 1/8W	182822	-
R2945	200 2% 1/8W	178280	-
R2946	1000 2% 1/8W	190462	-
# R2947	10 5% 1/4W	829010	QW010
R3115, 17	10K 2% 1/8W	174364	-
R3120	560 2% 1/8W	182822	-
R3121, 36	10K 2% 1/8W	174364	-
R3138	22K 2% 1/8W	174367	EW322
R3141	100 2% 1/8W	181486	-
R3143	1000 2% 1/8W	190462	-
R3305	10K 2% 1/8W	174364	-
R3307	27K 2% 1/10W	205245	-
R3309	7500 2% 1/8W	200178	-
# R3310	47 5% 1/4W	175040	QW047
R3335	12K 2% 1/10W	205352	-
R3342	91K 2% 1/10W	200180	-
R3343	13K 2% 1/8W	178285	-
R3346	1500 Sub Brightness	200181	-
R3402	133K 1% 1/4W	195752	-
R3602	10K 2% 1/8W	174364	-
# R4001	1.8 10% 15W Wirewound	200444	-
# R4002	2.7M 10% 1/2W	217662	HW527
# R4003	33K 5% 2W	200182	2W333
R4102	5100 2% 1/4W	175417	QW251
# R4103	51K 5% 1/4W	175315	QW351
R4104	1500 2% 1/4W	175367	QW215
R4108	910 2% 1/4W	203097	QW191
R4109	1300 2% 1/4W	203745	QW213
# R4110	.18 5% 2W Wirewound	200183	-
R4113	300 Standby	190525	-
R4114	45.3K 1% 1/4W	176506	-
R4115	3240 1% 1/4W	200184	-
# R4116 (1)	500 Regulator B+	-	-
# R4119	330 5% 7W Wirewound	200185	-
R4120	10 2% 1/4W	200186	QW010
# R4126	6.8 5% 3W Wirewound	206016	-
R4139, 45	10K 2% 1/8W	174364	-
R4148	53.6K 1% 1/4W	200189	-
# R4149	1.2 5% 1W	831A12	1W1D2
R4152	470 2% 1/8W	182628	-
R4306	15K Horizontal Phase	200417	-
R4308	120 2% 1/8W	181485	-
# R4312	47 5% 1/4W	175040	QW047
# R4313	100 5% 1/2W	176796	HW110
# R4314	22 5% 1/2W	175374	HW022
# For SAFETY use only equivalent replacement part.			
(1) Part of CR4111 B+ regulator kit.			

CONTROLS & RESISTORS continued			
Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
R4326	3300 2% 1/10W	195938	-
R4327	15K 2% 1/4W	175360	QW315
R4328	5100 2% 1/8W	175418	-
# R4401	220 5% 1/2W	176651	HW122
# R4402	10 5% 1/2W	181098	HW010
R4509, 10	10K 2% 1/8W	174364	-
R4511	8200 2% 1/8W	181065	-
R4513	120 2% 1/8W	181485	-
# R4518	560 5% 1/4W	829156	QW156
R4522	15K Vertical Height	200417	-
# R4523	820 5% 1W Nonflammable	175349	1W182
# R4544	4.7 5% 1/4W	200197	QW4D7
# R4701	10 5% 1/2W Nonflammable	830010	HW010
# R4703	3 5% 3W Wirewound	214108	-
# R4704 (2)	Resistor Block	196072	-
# R4710	12 2% 1/4W	829012	QW012
# R4713	82K 5% 1/2W	830382	HW382
R4715	200 2% 1/4W	175363	QW120
R4716	680 2% 1/4W	175312	QW168
R4717	56 2% 1/4W	175318	QW056
R4718	100 2% 1/8W	181486	-
# R4719	470 5% 1/2W	830147	HW147
# R4720	10 5% 1/2W Nonflammable	830010	HW010
# R4801	1M 5% 1/8W	174361	-
R4802	2000 Width	200199	-
R4805	10K E/W Pincushion Amp	181107	-
# R4809	390 5% 1/2W	175769	HW139
R4812	10K 2% 1/8W	174364	-
R4814	3000 2% 1/8W	190464	-
# R4821	150 5% 1W	175784	1W115
R4825	3300 2% 1/10W	195938	-
# R4901	10K 5% 1/4W	175317	QW310
# R4902	100 5% 1/4W	175325	QW110
# R4903	34K 1% 1/4W	207881	-
# R4904	46.4K 1% 1/4W	204794	-
R4905	22K 2% 1/4W	175054	QW322
R4920	5100 2% 1/4W	175417	QW251
R4923	150K XRP	207883	-
R5001, 02, 03	7500 5% 3W	182377	3W275
# R5015 (3)	3.3M	-	-
R6205	620 2% 1/8W	181493	-
# R6210	4.7 5% 1/2W	830A47	HW4D7
R6213	620 2% 1/8W	181493	-
# R6218	91 5% 1/4W	829091	QW091
# R6234	620 5% 2W	205253	2W162
R6410	620 2% 1/8W	181493	-
R6421	15K Reference Voltage	200417	-
R6435	330 2% 1/8W	181488	-
R6439	12K 2% 1/8W	174365	-
R6440	2700 2% 1/8W	181064	-
R6442	4300 2% 1/8W	201141	-
R6444	3000 2% 1/8W	190464	-
R6445	5600 2% 1/8W	190465	-
R6446	1800 2% 1/8W	181484	-
R6447	2200 2% 1/8W	181079	-
R6471	62K 2% 1/8W	201142	-
# R6481	10 5% 1/4W	829010	QW010
R6483	1300 2% 1/10W	205340	-
R6487	1000 2% 1/8W	190462	-
R6488	300 Sync Level	190525	-
R6491	2700 2% 1/8W	181064	-
R6495	12K 2% 1/8W	174365	-
R6496	1100 2% 1/10W	202586	-
R8008	1600 2% 1/8W	182824	-
# For SAFETY use only equivalent replacement part.			
(2) Focus and screen controls are part of R4704 resistor block.			
(3) Part of resistor block R4704.			

PARTS LIST continued

CONTROLS & RESISTORS continued

Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
R8009	1500 2% 1/8W	181482	-
	1600 2% 1/8W	182824	-
R8020	100 5% 1/8W	176818	-
	120 2% 1/8W	181485	-
R8021	330 2% 1/8W	181488	-
R8027	1500 2% 1/8W	181482	-
	1600 2% 1/8W	182824	-
R8028	1600 2% 1/10W	197625	-
R8031	1000 Luminance	181106	-
R8037	500 Chroma	181112	-
R8038	10K 2% 1/8W	174364	-
R8039	1500 2% 1/8W	181482	-
R8040	470 2% 1/10W	194926	-
R8069	130 2% 1/8W	205194	-
	100 2% 1/8W	181486	-
# R8071	24 5% 1W	831024	-
	27 5% 1W	210480	-
	33 5% 1W	180278	1W033
# R8072	75 5% 1W	175362	1W075
	82 5% 1W	181232	-
	91 5% 1W	180173	1W091
# RT4201	5.9 Cold PTC	207768	-

For SAFETY use only equivalent replacement part.

MISCELLANEOUS

Item No.	Description	Mfr. Part No.	Notes
# C4006	Capristor	250102	11M, 470pF
CF1201	Filter	195702	4.5MHz
CF2301	Trap	181125	4.5MHz
DL2701	Delay Line	202013	-
# F4001	Fuse	175425	5Amp, 125V, Fast Acting
# FL4001	Line Filter	207879	-
J1401	Jack	203741	Video Input 1
J1402	Jack	203741	Video Input 2
J1403	Jack	203741	Selected Video Output
J1404	Jack	195705	S-Video Input
J1407	Jack	203768	Left Input 1 Audio Input
J1408	Jack	203767	Right/Mono Input 1 Audio Input
J1409	Jack	203768	Left Input 2 Audio Input
J1410	Jack	203767	Right/Mono Input 2 Audio Input
J1411	Jack	203765	Left Audio Output
J1412	Jack	203765	Left Select Audio Output
J1413	Jack	203764	Right Audio Output
J1414	Jack	203764	Right Select Audio Output
# J4901	Connector	190476	Test
# J5002	Connector	-	CRT Shield
# K4201	Relay	190490	Degaussing
# KS5001	Socket	189986	CRT
# P1	Line Cord	187802	AC, Polarized
# P/J1905	Connector	250033	Power
# PDEGAUSS	Connector	250048	Degaussing
SF2301	Filter	200203	SAW
SP1900, 03	Speaker	-	2 1/4" X 5", 8 Ohms, 5W
	Speaker	225641	2 1/4" X 5", 8 Ohms, 10W
SW1	Switch	211982	External Speaker (Internal Surround, External)
SW3401	Switch	181724	Audio
	Switch	207842	Audio
SW3403	Switch	181724	Channel Up
	Switch	207842	Channel Up

For SAFETY use only equivalent replacement part.

MISCELLANEOUS continued

Item No.	Description	Mfr. Part No.	Notes
SW3411	Switch	181724	Video
	Switch	207842	Video
SW3413	Switch	181724	Volume Down
	Switch	207842	Volume Down
SW3421	Switch	181724	Set Up
	Switch	207842	Set Up
SW3423	Switch	181724	Volume Up
	Switch	207842	Volume Up
SW3431	Switch	181724	Channel Down
	Switch	207842	Channel Down
SW3433	Switch	207842	Power
# V101	CRT	A68EET3819	A68EET38X109
Y2801	Crystal	161235	3.58MHz
Y3101	Crystal	209856	8MHz
Y4301	Resonator	200210	503.3kHz
Y6401	Crystal	197652	14.318180MHz
Y8001	Crystal	197652	14.318180MHz
	Adapter	193983	Antenna 75/300 Ohms
#	Bracket	205262	For CR3403
#	Bracket	202018	Support Pot
#	Cover	200215	Focus
#	Cover	201951	Test Access
#	Cup	210684	Anode
#	Housing	200216	Focus
	Jack Panel	203772	-
	PC Board (1)	225777	CRT
	PC Board (1)	204806	PIP
	PC Board (1)	210883	Digital Comb Filter
	PC Board (1)	207813	External Speaker
	PC Board (1)	204910	Front Panel Assembly
	PC Board (1)	203810	Headphone
	PC Board (1)	219499	SRS Audio 5 Watt
	PC Board (1)	225776	Scan Velocity Modulation
	Terminal	161073	Speaker
	Transmitter	224265	Remote, CRK83E1
#	Tray	203100	Chassis

RF SWITCH / SPLITTER

J1	Jack	203794	RF Input 1
J2	Jack	203794	RF Input 2
J3	Jack	203794	RF Output

TUNER

Q106	Crystal	200560	4MHz
	Tuner (1)(2)	203533	UHF/VHF, MTP-M-2030-01

For SAFETY use only equivalent replacement part.

(1) Contact PTS Electronics Corporation for replacement; order by manufacturer's part number.
(2) Contact TNI Electronics for replacement; order by part number on tuner.



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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	PR57
Generators		Capacitance Analyzer	LC101, LC102
RGB	CM2000	CRT Analyzer	CR70
Multiburst Signal	VG91	AC Leakage Tester	PR57
Color Bar	VG91	Inductance Analyzer	LC101, LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	SC3100	TV Stereo Power Monitor	SR68, PA81
Frequency Meter	SC3100	Field Strength Meter	SL750
Hi-Voltage Probe	HP200	Transistor Tester	TF46
Accessory Probes	TP212	Video Analyzer	VG91, TVA92

TUNER INFORMATION

TUNER VOLTAGE CHART

Pin	VHF Low Band	VHF High Band	UHF Band
1 (AGC)	5.4V	4.1V	7.9V
2 (+12V)	12.0V	12.0V	12.0V
3 (IF)	11.7V	11.6V	11.7V
4 (+33V)	32.6V	32.7V	32.7V
5 (-12V)	-12.0V	-10.0V	-12.0V
6 (+5V)	5.0V	5.0V	5.0V
7 (SDA)	4.9V	4.9V	4.9V
8 (SCK)	4.9V	4.9V	4.9V
10 (LOG.)	1.2V	1.2V	1.2V
11 (B+)	12.0V	12.0V	12.0V

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

TUNER TERMINAL GUIDE

