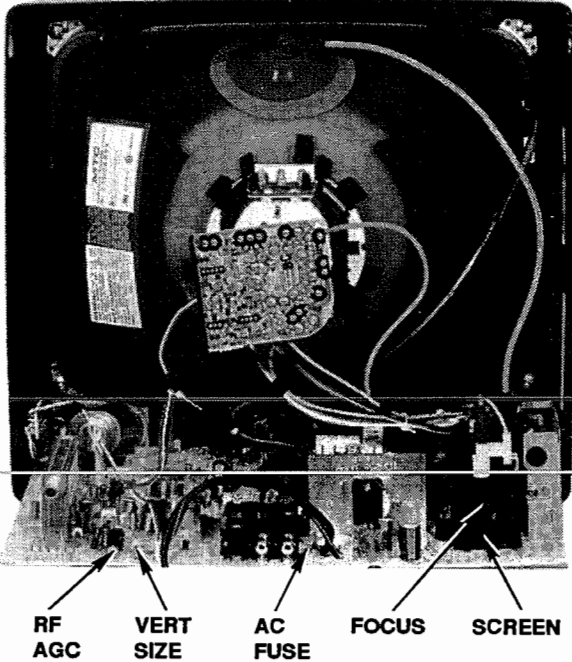
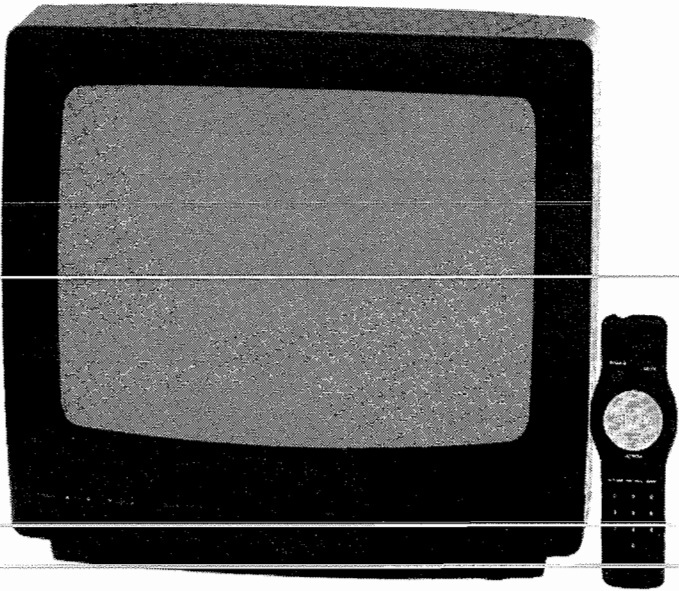


CABINET - REAR VIEW



PHOTOFACT® Technical Service Data

QUASAR
Model TP1315J (Chassis AMDC223)



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

- Schematics
- Component locations
- Parts list

Coverage includes these additional models and chassis

MODEL	CHASSIS
TP1315HJ	AMDC223
QC-14T15J	YAMDC223



HOWARD W. SAMS & COMPANY
MAY 1994 SET 3318

SET 3318

MODEL TP1315J (CHASSIS AMDC223)

QUASAR

INDEX

Cabinet - Rear View	1
GridTrace Location	
A Board	3
IC Functions	1
Important Parts Information	1
Miscellaneous Adjustments	1
Parts List	4
Placement Chart	1
Safety Precautions	1
Schematics	
Power Supply	2
System Control	2
Television	2
Schematic Notes	2
Service Information	1
Test Equipment	1
Tuner Information	2

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.

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

©1994 by Howard W. Sams & Company
2647 Waterfront Parkway East Drive, Suite 300
Indianapolis, IN 46214-2012

Printed in the United States of America 5 4 3 2 1

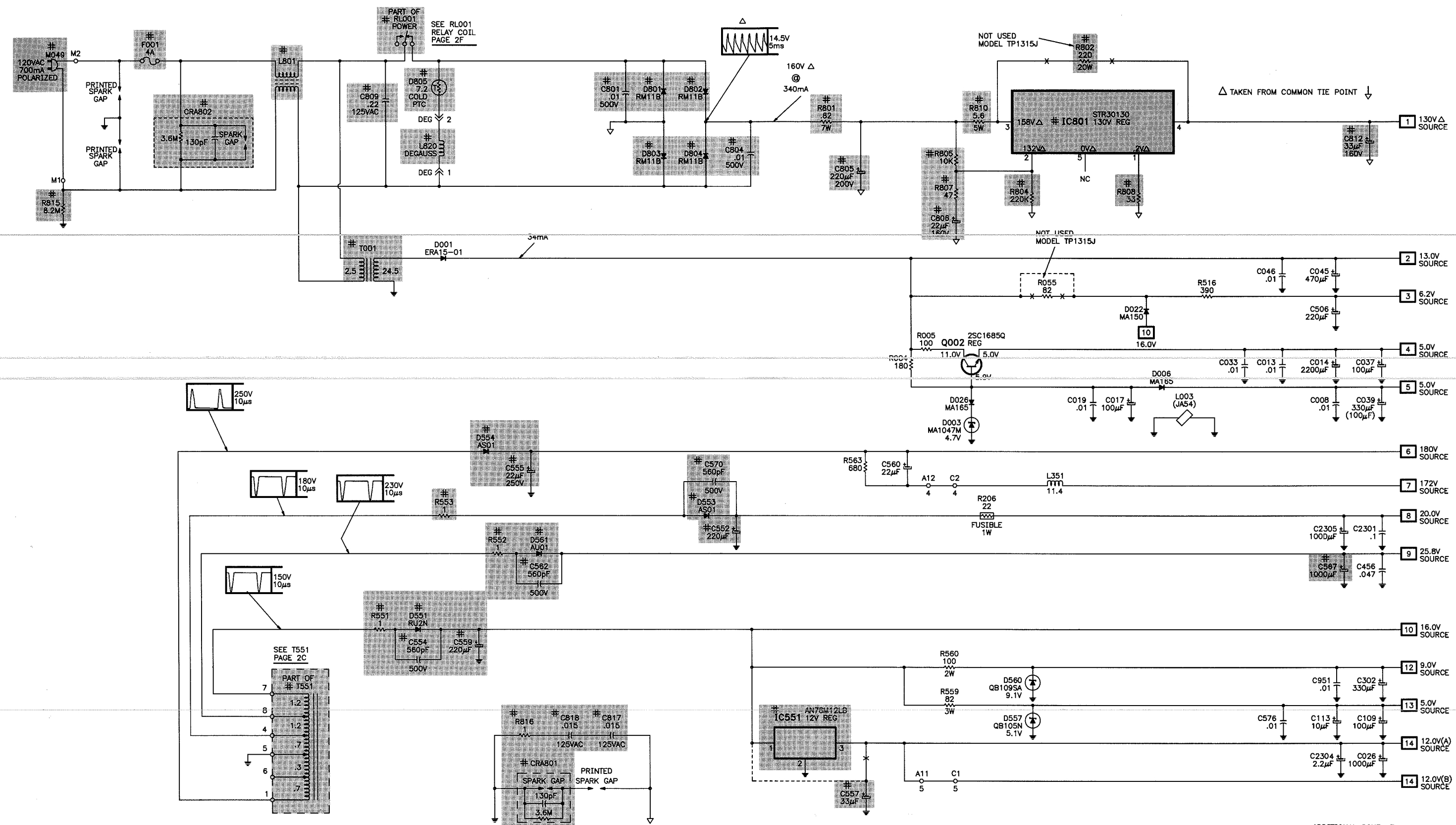


94PF02627



0 81262 03318 0

POWER SUPPLY SCHEMATIC



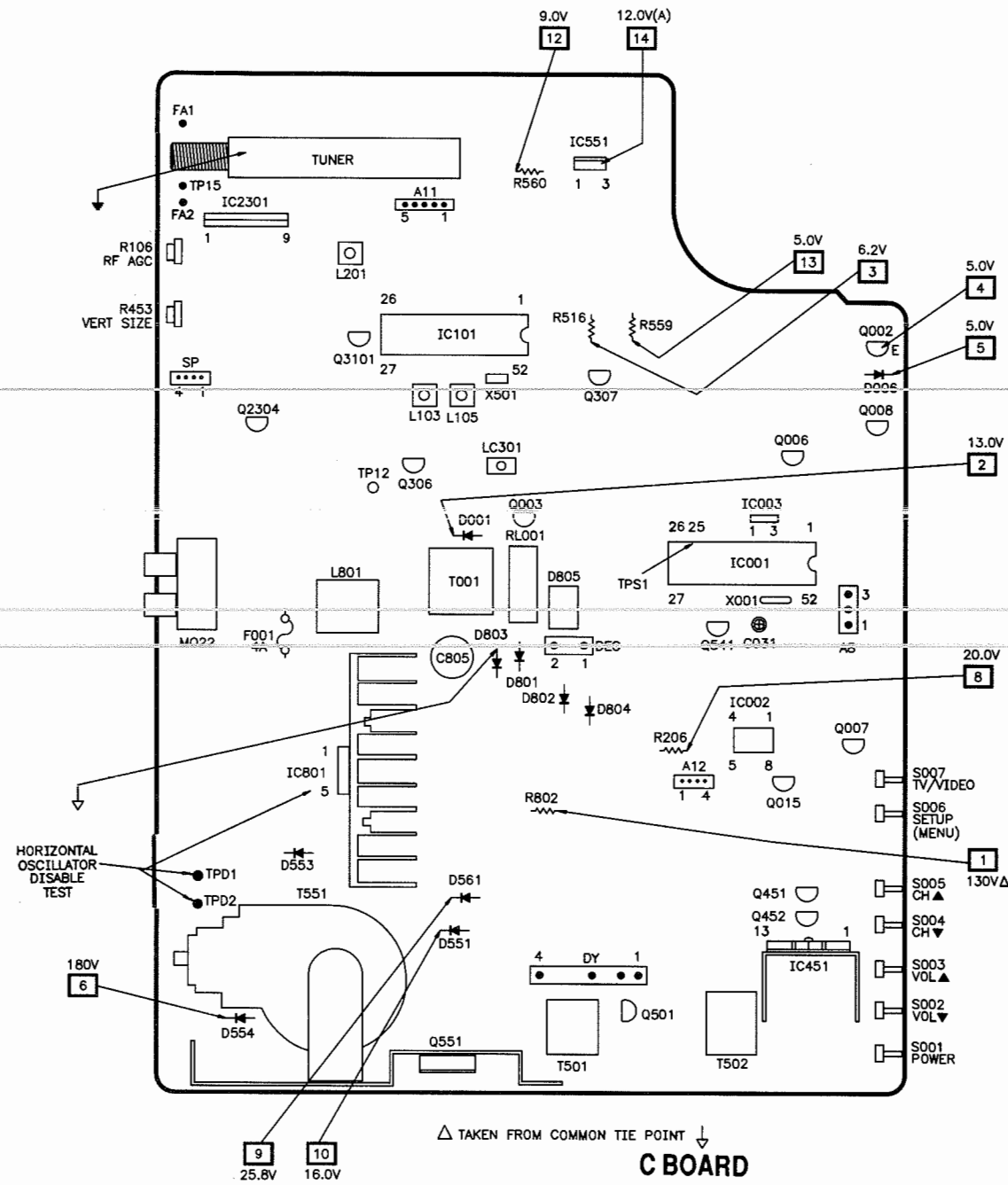
CUASAR

MODEL TP1315J (CHASSIS AMDC23)

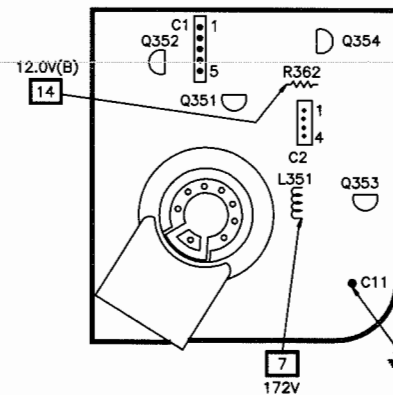
ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2
VOLTAGES TAKEN WITH SIGNAL
A PHOTOFACIT STANDARD NOTATION SCHEMATIC
WITH CIRCUITTRACE®
© Howard W. Sams & Co. 1994

PLACEMENT CHART

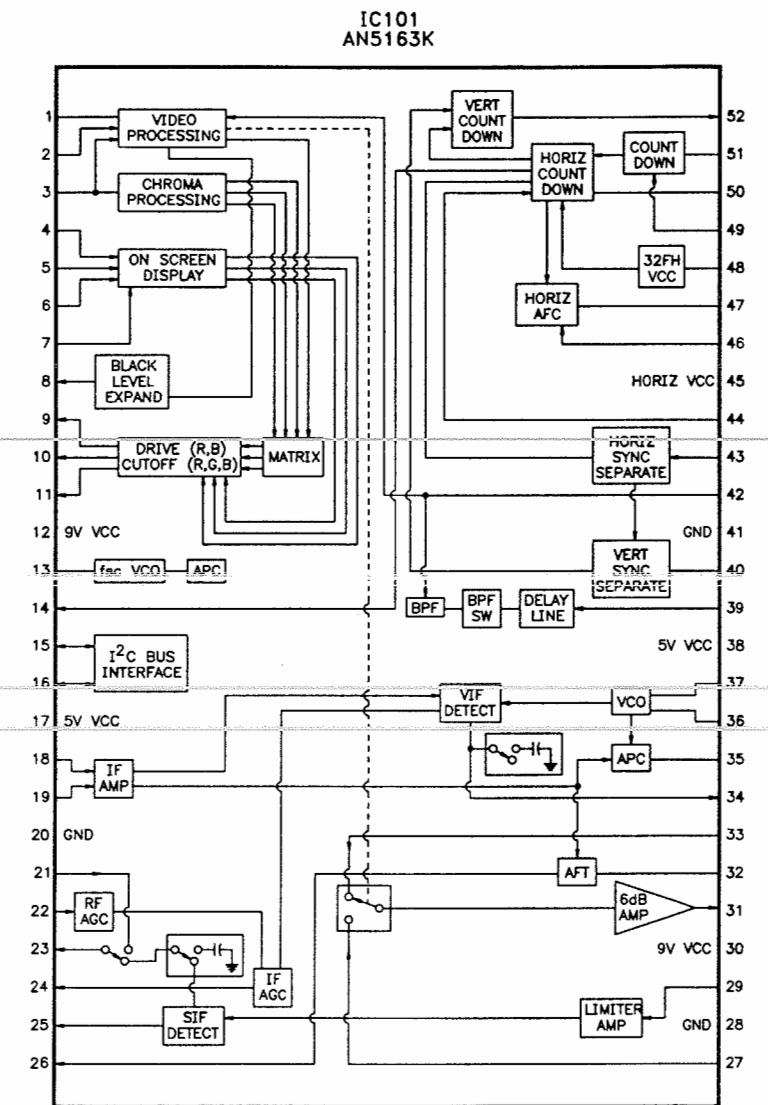
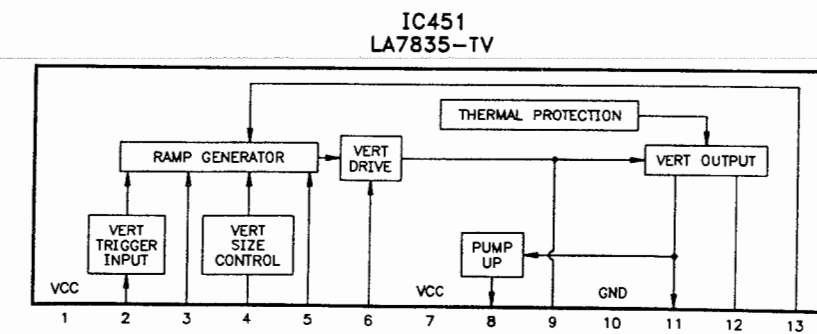
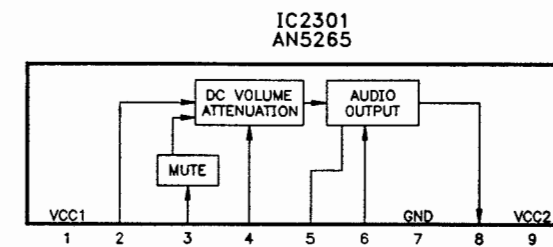
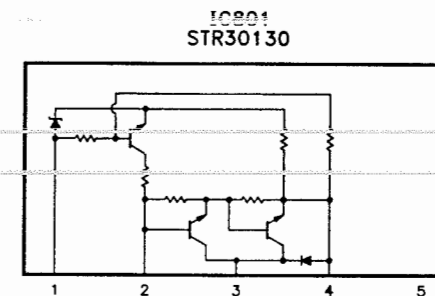
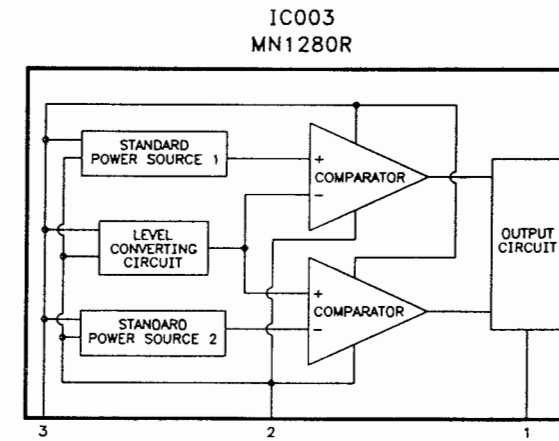
A BOARD



C BOARD



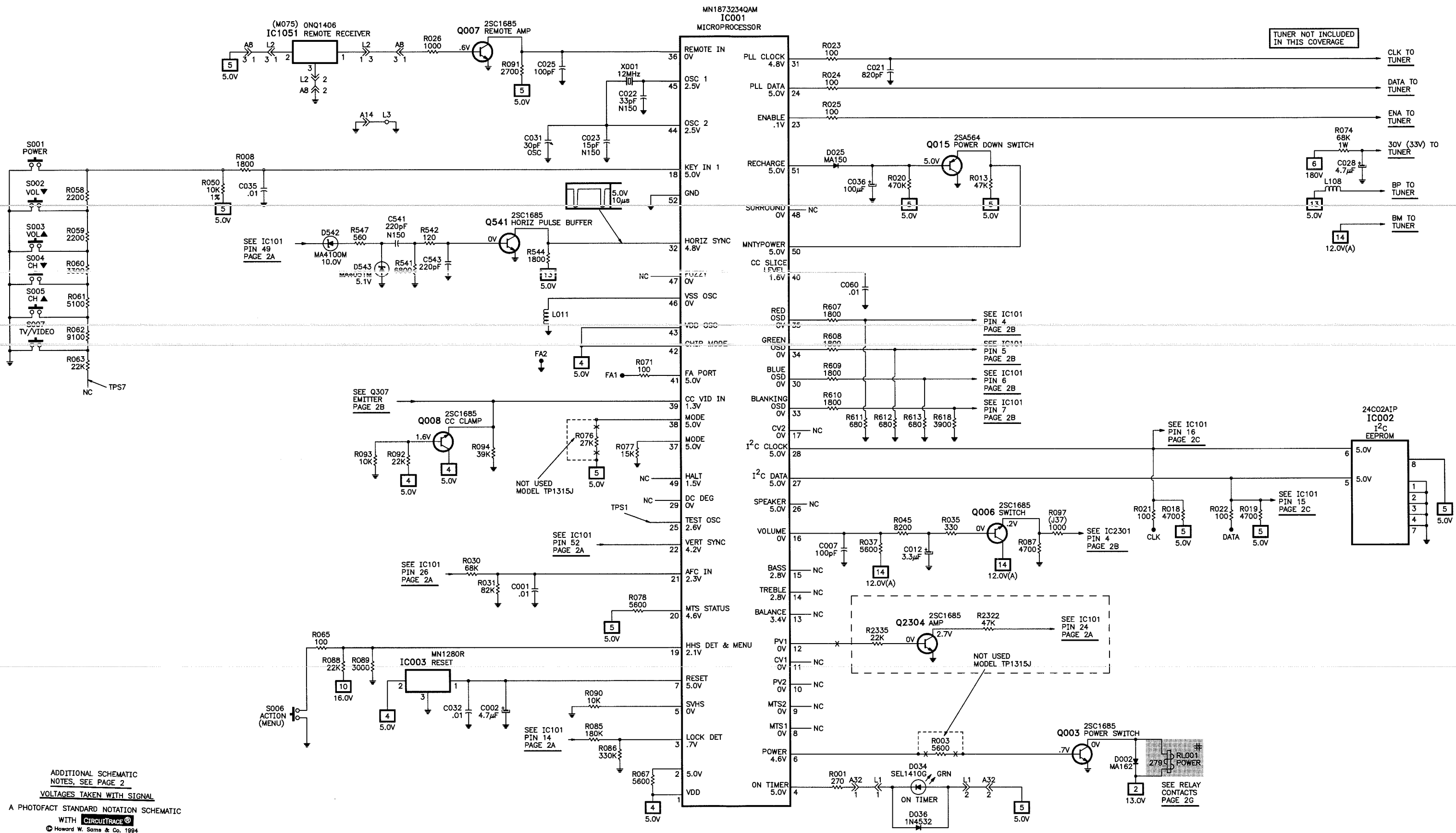
IC FUNCTIONS



QUASAR

MODEL TP1315J (CHASSIS AMDC223)

SYSTEM CONTROL SCHEMATIC



SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. For continued SAFETY:

- 1. Before replacing parts, disconnect power source to protect electrostatically sensitive parts.
- 2. Do not attempt to modify any circuit unless so recommended by the manufacturer.
- 3. 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.

- 1. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver and CRT anode lead.
- 2. DO NOT lift the CRT by the neck.
- 3. 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.

- 1. Keep an accurate high voltage meter available at all times. Check meter calibration periodically.
- 2. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly.
- 3. 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.
- 4. 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.
- 5. 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.

SAFETY CHECKS – FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

- 1. Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable).
- 2. Use an ohmmeter to measure the resistance between the jumpered 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.

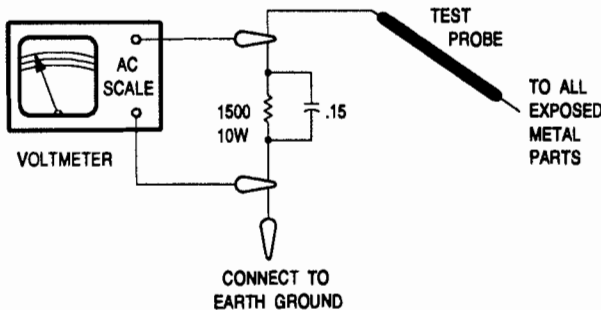
Hot Leakage Current Check

- 1. Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer.
- 2. 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.)
- 3. 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.
- 4. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected.
- 5. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer.

- 1. Check repaired area for poorly soldered or unsoldered connections, and check entire circuit board for solder splashes.
- 2. Check inner board wiring for pinched wires or wires contacting any high wattage resistors.
- 3. 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.



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

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.

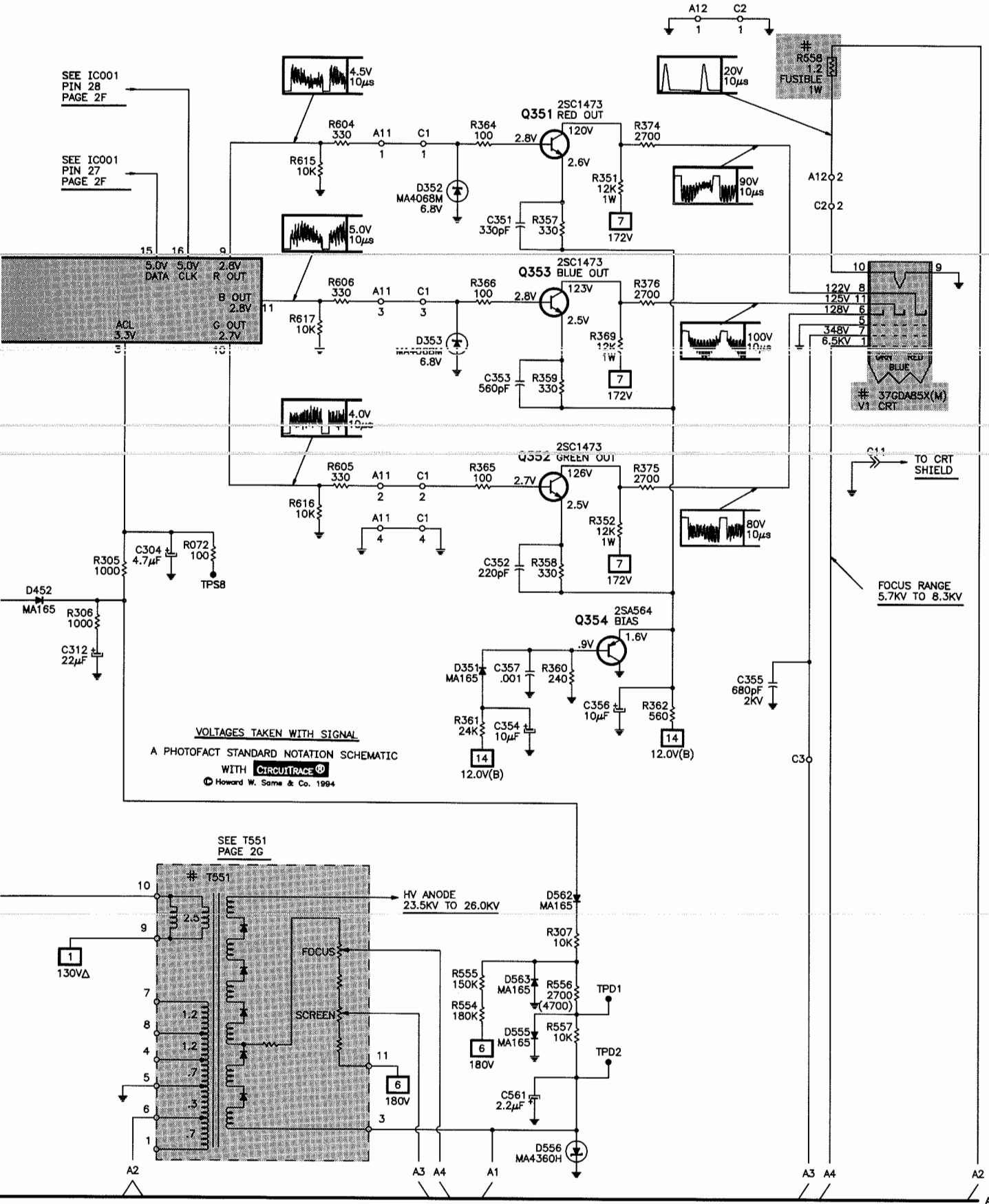
- Custom Components Corporation (Chek-A-Color)
- NTE Electronics, Inc. (NTE)
- Philips ECG Company (ECG)
- PTS Electronics Corporation (PTS)
- Sencore, Inc.
- Thomson Consumer Electronics, Inc. (SK, TCE)

C TELEVISION SCHEMATIC continued

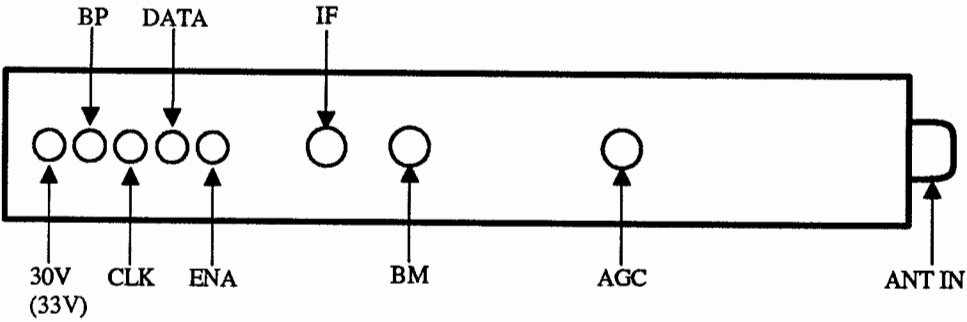
TUNER INFORMATION

TUNER VOLTAGE CHART			
Pin	VHF Low Band	VHF High Band	UHF Band
AGC	4.8V	4.8V	4.5V
BM	12.0V	12.0V	12.0V
IF	0V	0V	0V
ENA	.2V	.2V	.2V
DATA	5.0V	5.0V	5.0V
CLK	5.0V	5.0V	5.0V
BP	5.0V	5.0V	5.0V
30V (33V)	4.1V	7.1V	8.3V

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



SCHEMATIC NOTES

- # For SAFETY use only equivalent replacement part, see parts list.
- * Circuitry not used in some sets.
- Circuitry used in some versions.
- ⊥ Ground
- ⏏ Chassis ground
- ▽ Common tie point
- △ Taken from common tie point
- 11 Schematic Circuitace
- 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.
Voltages measured with digital meter and a 1000μV RF signal, with colorbar pattern, applied to antenna terminal. Controls adjusted for normal operation.
Capacitors are 50 volts or less, 5% or greater unless noted. Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.
Resistors are 1/2W or less, 5% or greater unless noted. Value in () used in some versions.
Measurements with switching as shown, unless noted. Rated voltage shown on Zener Diodes.

MISCELLANEOUS ADJUSTMENTS

ENTERING SERVICEMAN MODE

Turn on receiver and momentarily connect test point FA1 to FA2. The receiver will enter aging mode, volume up/down will adjust rapidly. Press the action button and volume up buttons on receiver control panel simultaneously. The receiver will enter the serviceman mode, the volume up/down buttons will adjust normally and all customer controls are set to normal. Press power button on remote to select one of three service modes.

- B= DAC Adjustments
- C= CRT Adjustments
- Normal = Normal operation of channel and volume buttons

EXIT SERVICEMAN MODE

Press action and power buttons on receiver control panel simultaneously for approximately 2 seconds to exit serviceman mode. The receiver will shutoff then come back on with audio on channel 3.

NOTE: Always exit serviceman mode when finished making adjustments.

DAC ADJUSTMENTS

NOTE: Write down original values in detail before making any adjustments in case a misadjustment occurs. Press channel up/down buttons on remote to select any of 6 service adjustment addresses. Press volume up/down buttons on remote to adjust level of adjustment.

DAC Adjustment Range and Default Levels

Adjustment	Range	Default Level
Sub Bright (B0)	0-127	67
Sub Color (B1)	0-63	33
Sub Tint (B2)	0-63	33
Sub Picture (B3)	0-63	35
Video Det Level (B4)	0-15	8
Sound Out (B5)	0-15	8

SOUND OUT (B5)

This adjustment is factory set, do not adjust unless IC002 or IC101 has been replaced. Connect a generator with a 1kHz mono audio tone to the antenna terminal. Connect an oscilloscope to pin 2 of IC2301. Enter DAC mode and select sound out (B5). Adjust for 720mV ±20mV.

SUB BRIGHTNESS (B0)

This adjustment must be made after sub contrast and color temperature adjustments are made. DO NOT adjust screen after sub brightness is set. Connect a color bar signal with pure white and pure black to the antenna input. Switch color off. Enter DAC mode and select sub bright (B0). Adjust until the black bars start to turn gray, then decrease adjustment until bars turn black.

VIDEO DETECTOR LEVEL (B4)

Connect a color bar signal to the antenna input. Connect oscilloscope to TP12. Enter DAC mode and select video det level (B4). Adjust for 1.0Vp-p ±.2Vp-p

SUB PICTURE (B3)

NOTE: This adjustment is factory set, DO NOT adjust unless CRT or C board is replaced.

Connect a color bar signal to the antenna input. Connect oscilloscope to pin 2 of connector C1 on C board. Connect a 1000 ohms resistor from TPD1 to pin 3 of IC551. Connect TPD2 to ground. Enter DAC mode and select sub picture (B3). Adjust for 2.6Vp-p ±.1Vp-p from white to black level. Do not include sync tip in measurement. Remove jumpers.

SUB TINT ADJUSTMENT (B2)

Tune in a color bar signal. Connect oscilloscope to pin 1 of connector C1 on the C board. Connect a 1000 ohms resistor from TPD1 to pin 3 of IC551. Connect TPD2 to ground. Enter DAC mode and select sub tint (B2). Adjust waveform so the 1st and 4th peaks are of equal amplitude. Remove jumpers.

COLOR ADJUSTMENT (B1)

Tune in a color bar signal. Connect oscilloscope to pin 1 of connector C1 on the C board. Connect a 1000 ohms resistor from TPD1 to pin 3 of IC551. Connect TPD2 to ground. Enter DAC mode and select sub color (B1). Adjust waveform for .65Vp-p ±.05Vp-p. Remove jumpers.

CRT ADJUSTMENTS

Follow same procedure used for DAC adjustments.

CRT Adjustment Range and Default Levels

Adjustment	Range	Default Level
Horiz Centering (C0)	0-15	8
Red Cutoff (C1)	*0-511	128
Green Cutoff (C2)	*0-511	128
Blue Cutoff (C3)	*0-511	128
Red Drive (C4)	0-255	128
Blue Drive (C5)	0-255	128
* Adjustment indicated in 2 steps (0-255) (H0-H255).		

PURITY CHECK

Press recall button on remote to enter purity check mode. NOTE: Receiver must be in serviceman mode for purity colors to display on screen. Press recall button again to display desired colors.

COLOR TEMPERATURE (C1 thru C5)

NOTE: Observe low and high brightness areas of a B/W picture for proper tracking. Enter DAC mode and select CRT adjustments. Set the red cutoff (C1), green cutoff (C2), and blue cutoff (C3) for a gray picture. Set the red drive (C4) and blue drive (C5) for correct white areas.

HORIZONTAL CENTERING (C0)

Tune in a crosshatch pattern. Enter serviceman mode and select CRT horizontal centering (C0) adjustment and adjust crosshatch pattern for correct horizontal centering.

REMOTE OPERATION

Picture Adjustments

1. Press the action button to display the main menu.
2. Press the channel down button to select the picture icon.

3. Press the action button to display the picture adjustment menu.
4. Press the channel up or down button to select the desired picture adjustment.
5. Press the volume up or down button to adjust selection.
6. Press the action button twice to exit picture adjustment.

Normalize Settings

1. Press the action button to display the main menu.
2. Press the channel down button to select the picture adjustment.
3. Press the volume up or down button to reset picture adjustments to factory preset levels.

NOTE: This receiver employs digital customer controls. All adjustments are at normalized position unless otherwise indicated. Receiver in TV mode.

SERVICE INFORMATION

POWER SUPPLY PROTECTION CIRCUIT

The 16.0V power supply voltage is monitored at pin 19 of IC001. Normal operating voltage at pin 19 is .6V to 3.1V. If a major power supply failure occurs the voltage at pin 19 will increase above 3.2V and cause pin 6 of IC001 to go low. This triggers Q003 and de-energizes RL001 turning off the receiver. This condition will remain until AC power is momentarily disconnected. If receiver goes off again, after pressing the power button when power is reapplied, there is a problem with the power supply.

WARNING: Because pin 19 of IC001 is a dual function pin, DO NOT press the action button on the receiver when the above symptom occurs. This will prevent over voltage protection and may cause severe damage to the entire receiver.

CRT PROTECTION

The CRT protection circuit is made up of Q451 and Q452. This circuit blanks out the CRT if vertical deflection failure occurs. It is

important for the life of the CRT that this circuit is tested before returning the receiver to the customer. To test, short the base of Q452 to ground. The screen should go blank, if not this circuit needs repair.

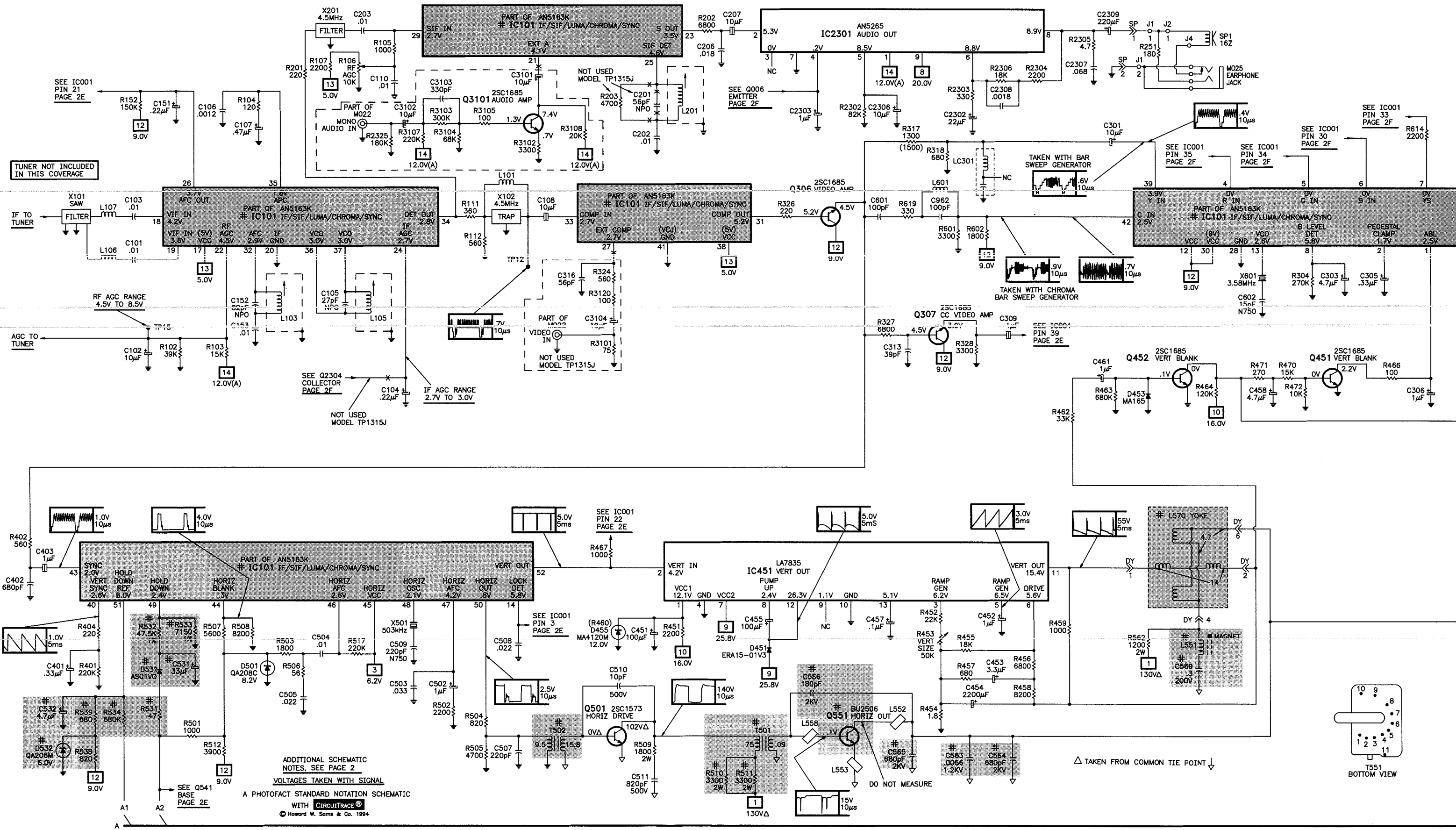
HORIZONTAL OSCILLATOR DISABLE TEST

Connect the positive lead of a voltmeter to TPD1 and the negative lead to TPD2. Apply 120VAC and turn on receiver. Normalize video menu and adjust brightness to zero. Adjust picture for .9V on voltmeter. Turn receiver off and connect a jumper between pins 3 and 4 of IC801. Set AC supply to 100VAC. Monitor the high voltage with a high voltage probe. Turn receiver on and slowly increase AC supply. Confirm the high voltage does not exceed 27KV when horizontal just begins to pull out of sync.

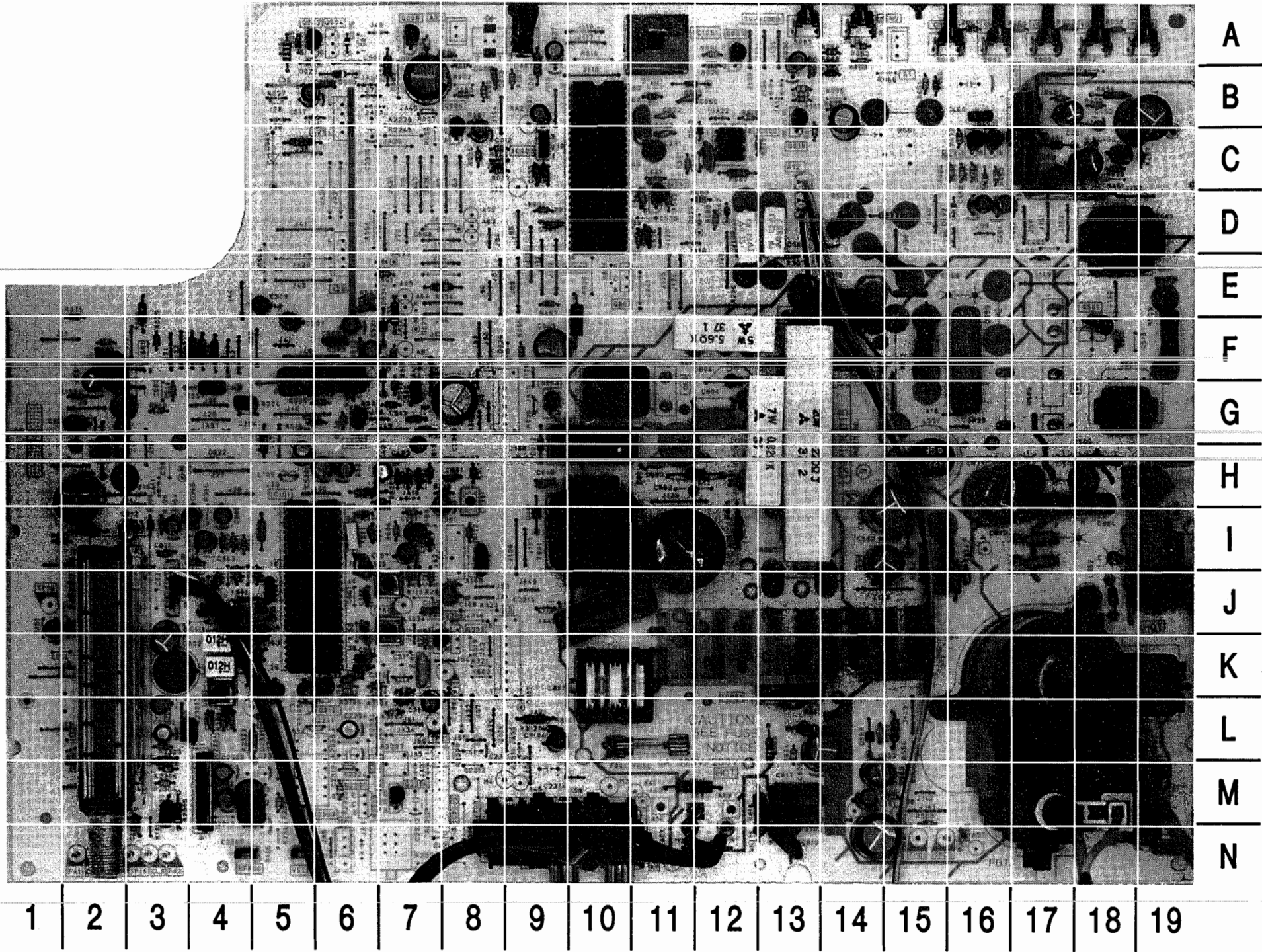
A

B

TELEVISION SCHEMATIC



A BOARD



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.
D001	ERA15-01	-	NTE552	ECG552	SK9000
D002	MA162	-	NTE519	ECG519	SK3100
D003	MA1047M	-	NTE5009A	ECG5009A	SK4A7
D006	MA165	-	NTE519	ECG519	SK3100
D022, 25	MA150	-	NTE177	ECG177	SK9091
D026	MA165	-	NTE519	ECG519	SK3100
D034	SEL1410G	-	-	-	-
D036	1N4532	-	NTE177	ECG177	SK9091
	MA150	-	NTE177	ECG177	SK9091
D351	MA165	-	NTE519	ECG519	SK3100
D352, 53	MA4068M	-	NTE5014A	ECG5014A	SK6A8
D451	ERA15-01V3	-	NTE552	ECG552	SK9000
D452, 53	MA165	-	NTE519	ECG519	SK3100
D455	MA4120M	-	NTE5021T1	ECG5021T1	SK9971
D501	QA208C	TVSQA208C	NTE5016A	ECG5016A	SK8A2
# D531	AS01V0	-	NTE552	ECG552	SK9000
# D532	QA206M	TVSQA206M	NTE5012A	ECG5012A	SK6A0
D542	MA4100M	-	NTE5019A	ECG5019A	SK10A
D543	MA4051M	-	NTE5010A	ECG5010A	SK5A1
# D551	RU2N	-	NTE552	ECG552	SK9000
# D553, 54	AS01	-	NTE552	ECG552	SK9000
	AU01	-	NTE552	ECG552	SK9000
	ERA2204	-	NTE552	ECG552	SK9000
D555	MA165	-	NTE519	ECG519	SK3100
D556	MA4360H	-	-	-	-
D557	QB105N	TVSQB105N	NTE135A	ECG135A	SK5V1
D560	QB109SA	TVSQB109SA	NTE5073A	ECG5073A	SK8V7
# D561	AU01	-	NTE552	ECG552	SK9000
	AS01V0	-	NTE552	ECG552	SK9000
	ERA2204	-	NTE552	ECG552	SK9000
D562, 63	MA165	-	NTE519	ECG519	SK3100
# D801 Thru					
# D804	RM11B	-	NTE125	ECG125	SK3081
	EM02BM	-	NTE125	ECG125	SK3081
IC001	MN1873234QAM	-	-	-	-
IC002	24C02AIP	-	-	-	-
IC003	MN1280R	-	NTE15044	-	SK9854
# IC101	AN5163K	-	-	-	-
IC451	LA7835-TV	-	NTE1855	ECG1855	SK10085
# IC551	AN78M12LB	-	NTE966	ECG966	SK3592
# IC801	STR30130	TVSSSTR30130	NTE1777	ECG1777	SK9870
IC2301	AN5265	-	NTE1789	ECG1789	SK9876
Q002, 03	2SC1685QRS	-	NTE85	ECG85	SK9229
Q006 Thru					
Q008	2SC1685QRS	-	NTE85	ECG85	SK9229
Q015	2SA564AQRS	-	NTE290A	ECG290A	SK3932
Q306, 07	2SC1685QRS	-	NTE85	ECG85	SK9229
Q351 Thru					
Q353	2SC1473NC	-	NTE399	ECG399	SK9352
# 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.
Q354	2SA564AQRS	-	NTE290A	ECG290A	SK3932
Q451, 52	2SC1685QRS	-	NTE85	ECG85	SK9229
Q501	2SC1573AH	-	NTE399	ECG399	SK9352
Q541	2SC1685QRS	-	NTE85	ECG85	SK9229
# Q551	BU2506DF	-	-	-	-
Q2304	2SC1685QRS	-	NTE85	ECG85	SK9229
Q3101	2SC1685QRS	-	NTE85	ECG85	SK9229
# For SAFETY use only equivalent replacement part.					

CABINET PARTS	
Item	Mfr. Part No.
MODEL TP1315J	
Cabinet Back Assembly	TXFKU352SER
Cabinet Front Assembly	TKFKY482SER
Pushbutton Assembly	TBX2A52104
Speaker Grille	TKP2A13002
MODEL TP1315HJ	
Cabinet Back Assembly	TXFKU362SER
Cabinet Front Assembly	TKFKY502SER
Pushbutton Assembly	TBX2A52103
Speaker Grille	TKP2A13001
MODEL QC-14T15J	
Cabinet Back Assembly	TXFKU372SER
Cabinet Front Assembly	TKFKY492SER
Pushbutton Assembly	TBX2A52104
Speaker Grille	TKP2A13002
REMOTE TRANSMITTER (EUR501051)	
Battery Cover	UR50EC1027
REMOTE TRANSMITTER (EUR501053)	
Battery Cover	UR50EC1026

COILS & TRANSFORMERS			
Item No.	Function/Rating	Mfr. Part No.	On-Unit No.
L003	Ferrite Bead	EXCELSA39	-
L011	1.5pH	TLUABTA1R5K	-
L101	15pH	TLUABTA150K	-
L103	AFT	EIV7EN041B	-
L105	VCO	EIV7EN053B	-
L106, 07	1.2pH	TLQ012K205C	-
L108	1pH	TLUABTA1R0K	-
L201	Quadrature	EIS7ES004B	-
L351	150pH	TLUABTA151K	-
# L551	Horizontal Linearity	TLH6622P	6622P
L552, 53	Ferrite Bead	EXCELSA24	-
L558	Ferrite Bead	EXCELSA24	-
# L570	Yoke 90°	OLY15304F	-
	Horiz 3.1mH		
	Vert 25mH		
L601	10pH	TLUABTA100K	-
# L801	Line Filter	ELF18D219	-
# L820	Degaussing	TLK169093M	-
LC301	3.58MHz Trap	ELB5A082	-
# T001	Standby Power	TLP16297	-
# T501	Horizontal Driver	TLH15412	H70
# T502	Horizontal Coupling	ETE19Z30AY	E1930
# T551 (1)	Horizontal Output	OLF04701F	-
# For SAFETY use only equivalent replacement part.			
(1) Focus and screen controls are part of T551.			

A BOARD, GRIDTRACE LOCATION GUIDE

A8	A-11	C316	K-6	C2302	L-3	IC451	C-17	R045	C-8	R453	N-5	R607	F-3	TPS7	A-14
A11	J-3	C401	I-7	C2303	M-4	IC551	F-2	R050	A-14	R454	B-18	R608	F-4	TPS8	N-2
A12	D-13	C402	H-7	C2304	L-6	IC801	L-13	R055	F-9	R455	B-18	R609	F-4	X001	B-11
C001	D-9	C403	H-7	C2305	G-8	IC1051	A-11	R058	A-18	R456	C-18	R610	G-3	X101	K-3
C002	B-9	C451	B-17	C2306	M-4	IC2301	M-4	R059	A-17	R457	C-19	R611	I-4	X102	I-8
C007	C-8	C452	B-18	C2307	M-3	L003	F-10	R060	A-17	R458	C-18	R612	I-4	X201	K-7
C008*	B-12	C453	C-18	C2308	M-3	L011	B-11	R061	A-16	R459	E-17	R613	I-4	X501	I-6
C012	C-8	C454	B-19	C2309	M-4	L101	I-7	R062	A-14	R462	D-17	R614	I-5	X601	J-4
C013	B-8	C455	C-18	C3101	L-5	L103	K-7	R063	A-14	R463	C-16	R615	J-5	* Located on bottom of board.	
C014	B-7	C456	B-16	C3102	L-7	L105	J-7	R065	B-14	R464	C-16	R616	J-4		
C017	B-5	C457	C-17	C3103	L-7	L106	K-4	R067	B-9	R466	B-15	R617	J-4		
C019	B-6	C458	D-16	C3104	L-9	L107	K-4	R071	F-2	R467	E-9	R618	G-3		
C021	I-3	C461	D-16	CLK	N-3	L108	K-4	R072	I-2	R470	C-16	R619	H-7		
C022	B-11	C502	F-6	CRA801	N-13	L201	L-4	R074	E-15	R471	C-16	R801	H-13		
C023	C-11	C503	F-6	CRA802*	K-10	L551	H-15	R076	B-14	R472	C-16	R802	H-13		
C025	C-11	C504	E-6	D001	I-9	L552	J-18	R077	C-13	R501	E-7	R804	L-13		
C026	H-2	C505	G-7	D002	H-9	L553	J-19	R078	B-7	R502	F-6	R805	I-12		
C028	G-2	C506	H-6	D003	B-6	L558	I-19	R085	F-2	R503	E-6	R807	L-13		
C031	C-11	C507	I-6	D006	A-6	L601	H-7	R086	F-3	R504	I-6	R808	L-13		
C032	C-9	C508	J-5	D022	H-4	L801	K-10	R087	B-8	R505	H-7	R810	F-12		
C033	C-9	C509	J-6	D025	B-11	LC301	I-8	R088	D-12	R506	F-7	R815	M-12		
C035	B-13	C510	F-18	D026	A-5	M022	N-10	R089	D-12	R507	G-7	R816	M-13		
C036	A-13	C511	E-19	D451	C-17	Q002	A-5	R090	B-8	R508	G-7	R2302	M-4		
C037	A-9	C531	F-6	D452	D-16	Q003	G-9	R091	A-12	R509	F-19	R2303	L-3		
C039	B-14	C532	H-6	D453	C-16	Q006	B-8	R092	B-8	R510	E-14	R2304	M-3		
C045	F-9	C541	C-12	D455	B-17	Q007	A-12	R093	A-8	R511	F-14	R2305	M-3		
C046	H-9	C543	D-11	D501	F-7	Q008	A-7	R094	A-7	R512*	F-6	R2306	M-3		
C060	B-11	C552	M-14	D531	F-7	Q015	B-13	R097	C-5	R516	G-5	R2322	L-4		
C101	K-5	C554	J-14	D532	G-5	Q306	K-7	R102	L-2	R517	G-7	R2325	M-6		
C102	L-3	C555	N-14	D542	D-12	Q307	G-6	R103	L-2	R531	E-7	R2335	M-5		
C103	K-5	C557	G-2	D543	C-12	Q451	C-16	R104	J-7	R532	G-6	R3101	L-9		
C104	K-5	C559	I-15	D551	I-16	Q452	C-16	R105*	K-5	R533	F-5	R3102	K-6		
C105	J-6	C560	D-14	D553	L-14	Q501	F-18	R106	N-4	R534	E-7	R3103	K-7		
C106	J-7	C561	M-14	D554	L-19	Q541	D-11	R107	M-2	R538	G-6	R3104	L-6		
C107	I-7	C562	I-15	D555	N-15	Q551	I-19	R111	J-7	R539	G-6	R3105	L-6		
C108	J-8	C563	I-18	D556	N-16	Q2304	M-7	R112	I-8	R541	C-11	R3107	L-7		
C109	H-9	C564	I-17	D557	G-4	Q3101	K-6	R152	G-2	R542	D-11	R3108	K-5		
C110	N-3	C565	I-17	D560	H-2	R001	B-9	R201	J-8	R544	D-11	R3120	L-9		
C113	K-5	C566	H-18	D561	I-15	R003	B-8	R202	H-5	R547	C-12	RL001	H-10		
C151	K-1	C567	I-15	D562	D-13	R004	A-5	R203	L-4	R551	J-16	S001	A-19		
C152	K-6	C569	F-16	D563	M-5	R005	A-5	R206	D-12	R552	I-15	S002	A-18		
C153	J-7	C570	L-14	D801	H-11	R008	A-14	R304	I-4	R553	L-15	S003	A-17		
C201	L-4	C576	D-11	D802	G-12	R013	B-13	R305	I-3	R554	L-15	S004	A-16		
C202	L-4	C601	H-8	D803	H-12	R018	B-12	R306	I-3	R555	M-15	S005	A-16		
C203	K-6	C602	J-4	D804	G-12	R019	C-12	R307	E-13	R556	M-15	S006	A-14		
C206	G-4	C801	H-11	D805	G-10	R020	B-13	R317	H-8	R557	N-15	S007	A-13		
C207	F-5	C804	G-12	DATA	N-2	R021	I-1	R318	H-8	R558	D-13	SP	N-6		
C301	I-7	C805	I-11	DEG	G-11	R022	J-2	R324	K-6	R559	G-6	T001	I-10		
C302	K-3	C806	L-14	DY	E-17	R023	J-2	R326	K-7	R560	G-2	T501	G-18		
C303	I-4	C809	J-10	F001	L-11	R024	J-2	R327	G-7	R562	F-15	T502	D-18		
C304	I-3	C812	H-16	FA1	N-2	R025	J-2	R328	G-5	R563	D-15	T551	L-18		
C305	I-3	C817	M-13	FA2	N-3	R026	B-12	R401	I-7	R601	H-7	TP12	K-8		
C306	I-4	C818	M-13	IC001	C-10	R030	F-3	R402	H-8	R602	H-6	TP15	N-2		
C309	E-5	C951	K-6	IC002	C-12	R031	D-9	R404	I-7	R604	I-4	TPD1	N-15		
C312	I-2	C962	H-7	IC003	C-9	R035	C-8	R451	B-15	R605	J-4	TPD2	N-6		
C313	G-7	C2301	L-3	IC101	J-5	R037	C-8	R452	B-17	R606	J-3	TPS1	D-10		


QUASAR

MODEL TP1315J (CHASSIS AMDC223)

PARTS LIST continued

CAPACITORS & ELECTROLYTICS		
Item No.	Rating	Mfr. Part No.
C022	33pF 5% 50V N150	ECCF1H330JP
C023	15pF 5% 50V N150	ECCF1H150JP
C031	30pF Trimmer	ECRHA030E81
C105	27pF 5% 50V NPO	ECCF1H270JC
C108	10pF 16V NP	ECEA1CN100S
C152	82pF 5% 50V NPO	ECCF1H820JC
C201	56pF 5% 50V NPO	ECCF1H560JC
C207	10pF 16V NP	ECEA1CN100S
C309	1pF 50V NP	ECEA1HN010S
C355	680pF 10% 2KV	ECKD3D681KB
C403	1pF 50V NP	ECEA1HN010S
C452	1pF 25V Tantalum	ECSF1EE105
C509	220pF 5% 50V N750	ECCF1H221JU
# C531	33pF 25V	ECEA1EU330
# C532	4.7pF 25V	ECEA1EU4R7
C541	220pF 5% 50V N150	ECCF1H221JP
# C552	220pF 25V	ECEA1EU221
# C554	560pF 10% 500V	ECKD2H561KB
# C555	22pF 250V	ECEA2EU220
# C557	33pF 25V	ECEA1EFS330
# C559	220pF 25V	ECEA1EFS221
# C562	560pF 10% 500V	ECKD2H561KB
# C563	.0056 5% 1.2KV	ECWH12H562JS
# C564, 65	680pF 5% 2KV	ECKD3D681JB
# C566	180pF 5% 2KV	ECKD3D181JB
# C567	1000pF 35V	ECEA1VGE102
# C569	.3 5% 200V	ECQF2H304JS
# C570	560pF 10% 500V	ECKD2H561KB
C602	15pF 5% 50V N750	ECCF1H150JU
# C801, 04	.01 +100 -0% 500V	ECKD2H103PU
# C805	220pF 200V	ECES2DU221E4
# C806	22pF 160V	ECEA2CU220
# C809	.22 10% 125VAC	ECQU1A224KH
# C812	33pF 160V	ECEA160V33Z
# C817, 18	.015 10% 125VAC	ECQU1A153KH
# For SAFETY use only equivalent replacement part.		

CONTROLS & RESISTORS			
Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
# D805	7.2 Cold PTC	TRPF5B0M050F	-
R050	10K 1% 1/4W	ER0S2CKF1002	-
R106	10K RF AGC	EVND1AA00B14	-
R206	22 5% 1W Fusible	ERQ1CJP220	F1W022
R453	50K Vertical Size	EVND2AA03B54	-
# R510, 11	3300 5% 2W	ERG2ANJ332	2W233
# R531	47 5% 1/4W	ERD25FJ470	QW047
# R532	47.5K 1% 1/4W	ER025CKF4752	-
# R533	7150 1% 1/4W	ER0S2CKF7151	-
# R534	680K 5% 1/4W	ERD25TJ684	QW468
# R538	820 5% 1/4W	ERDS2TJ821	QW182
# R539	680 5% 1/4W	ERDS2TJ681	QW168
# R551 Thru			
# R553	1 5% 1/2W	ERDS1FJ1R0	HW1D0
# R558	1.2 5% 1W Fusible	ERQ1CJP1R2	F1W1D2
R559	82 5% 3W	ERG3ANJ820	3W082
# R801	.82 10% 7W Wirewound	ERF7ZKR82	-
# R802	220 5% 20W Wirewound	ERF20ZJ221	-
# R804	220K 5% 1/4W	ERDS2TJ224	QW422
# R805	10K 5% 1/2W	ERDS1FJ103	HW310
# R807	47 5% 1/4W	ERD25FJ470	QW047
# R808	33 5% 1/4W	ERD25FJ330	QW033
# R810	5.6 10% 5W Wirewound	ERF5ZK5R6	-
# R815	8.2M 20% 1/2W	ERC12ZGM825	HW582
# R816	1 10% 1/2W Wirewound	ERW12PK1R0	-
# For SAFETY use only equivalent replacement part.			



Created with pride by the
employees of Howard W. Sams
& Company.

*J. Barker, B. Bryant,
B. Buchanan, T. Clensy,
D. Cobb, G. Farrell, B. Fink,
M. Herkless, J. Kocha,
J. Limp, F. Malek, B. Medaris,
R. Raus, B. Skinner, J. Young*

MISCELLANEOUS			
Item No.	Description	Mfr. Part No.	Notes
# CRA801, 02	Component Combination	EXNG131P365	130pF, 3.6M, Spark Gap
# F001	Fuse	XBA1C40NU100	4Amp, 125VAC, Slow Blow
IC1051	Receiver	0NQ1406	Remote
M022	Jack	TJB2A9061	Mono Audio Input, Video Input
M025	Jack	TJS1A7010	Earphone
# M049	Line Cord	TSX3134X	AC, Polarized
# RL001	Relay	TSE1864	Power
S001	Switch	EVQQBH12T	Power
S002	Switch	EVQQBH12T	Volume Down
S003	Switch	EVQQBH12T	Volume Up
S004	Switch	EVQQBH12T	Channel Down
S005	Switch	EVQQBH12T	Channel Up
S006	Switch	EVQQBH12T	Action (Menu)
S007	Switch	EVQQBH12T	TV/Video
SP1	Speaker	EAS7D11KC-G	2 3/4" X 1 1/2", 16 Ohms
# V1	CRT	37GDA85Y(M)	-
X001	Crystal	TSS2080MX	12MHz
X101	Filter	EFCH45MVK12N	SAW
X102	Trap	EFCS4R5MW3BA	4.5MHz
X201	Filter	EFCS4R5MS4	4.5MHz
X501	Crystal	EF0A503KS41	503kHz
X601	Crystal	TS816M32	3.58MHz
#	Antenna	TJB2A20601	Converter 75-300 Ohm
	Antenna	TSA120024-1	VHF
	Convergence	0FMK014ZZ	Correction Strip
	Fuse Holder	TJC6320	For F001 (2 used)
	Magnet	TLC2042-3	Convergence
	PC Board (1)	ONP190015GA	A
	PC Board (1)	ONP15006BC	C
	PC Board (1)	ONP19052AE	J
	PC Board (1)	TNP110395BA	L
	Socket	TJS1A5150	CRT
#	Socket	TYP SOCK2AX	Power
	Transmitter	EUR501051	Remote
	Transmitter (2)	EUR501053	Remote
	Tuner (1)	ENV568J5G3	UHF/VHF
	Wedge	TMM2A30202	Yoke Positioning (3 used)
# For SAFETY use only equivalent replacement part.			
(1) Contact PTS Electronics Corporation for replacement; order by manufacturer's part number.			
(2) Used in model TP1315HJ.			

QUASAR

MODEL TP1315J (CHASSIS AMDC223)