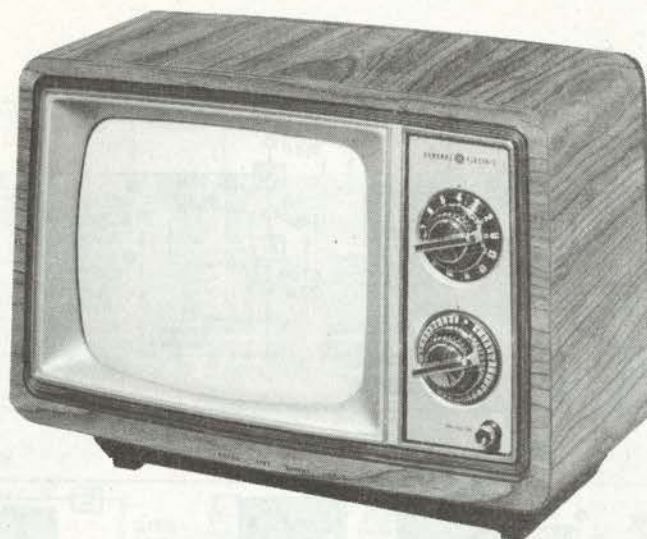


10AB3402VE01, 10AB3402VE02,
 10AB3402VE03, 10AB3406WE01,
 10AB3406WE02, 10AB3406WE03
 10AB3406WF02
 10AB3409WE01, 10AB3409WE02,
 10AB4408WE01
 10AB5402VF01
 10AB5402VH01
 10AB5403EF01
 10AB5403EH01
 10AB5406WF01
 10AB5406WH01

10AB-E
 10AB-F
 10AB-E
 10AB-F
 10AB-H
 10AB-F
 10AB-H
 10AB-F
 10AB-H

GENERAL ELECTRIC
CHASSIS 10AB-E/-F/-H



Model 10AB3406WF02

SAFETY PRECAUTIONS

See page 4.

SERVICE INFORMATION

See page 7.

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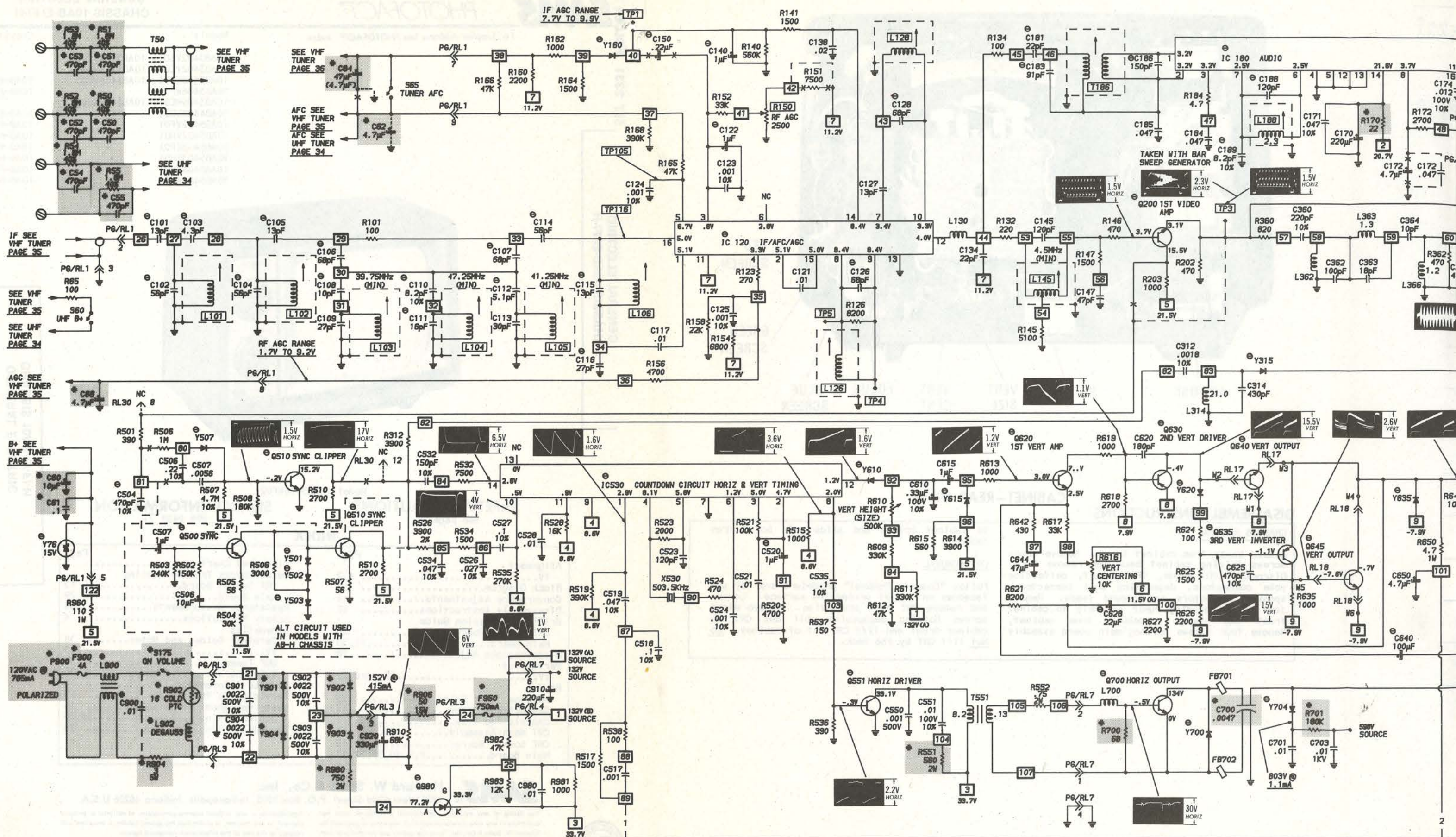
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed.

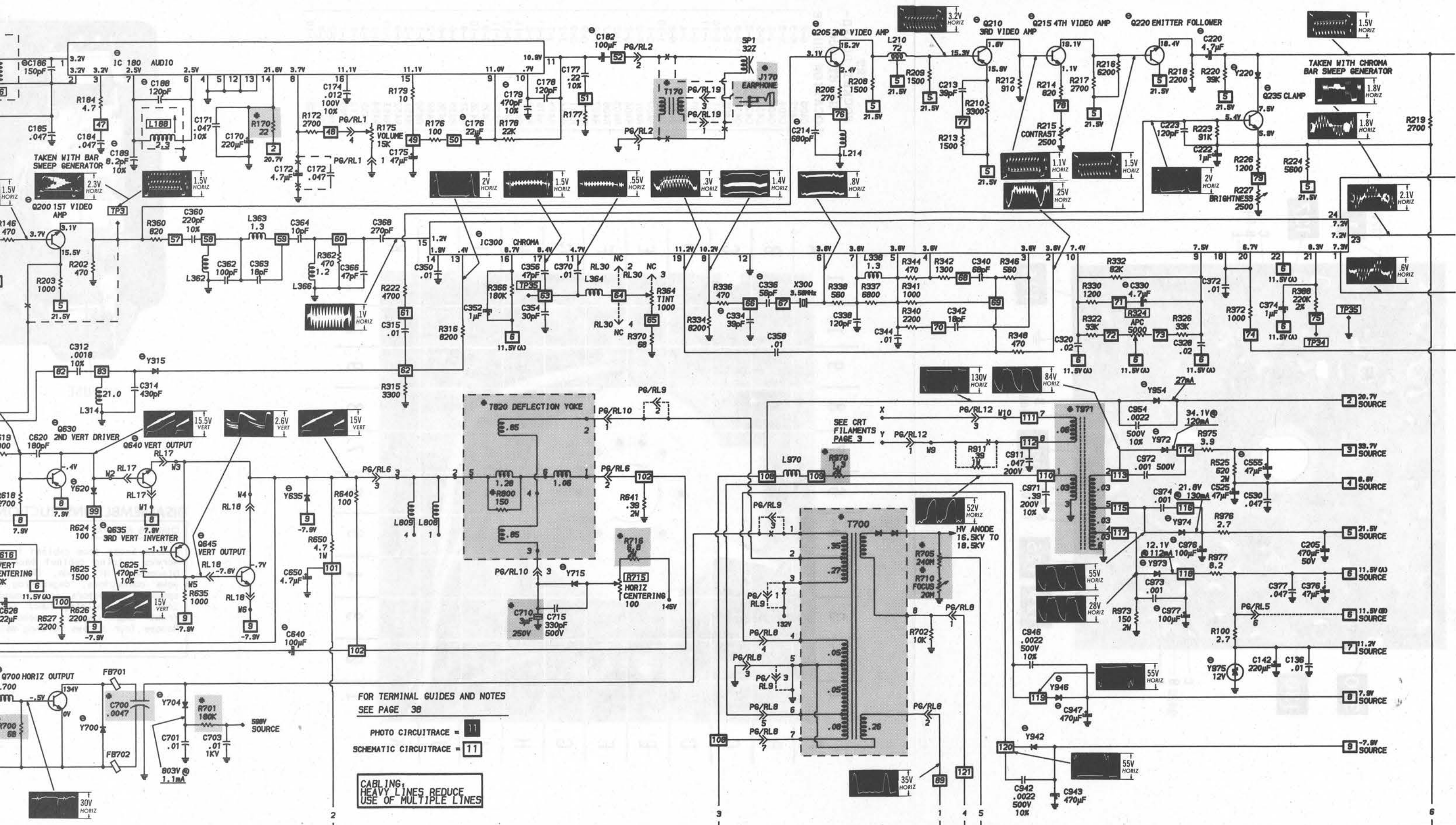
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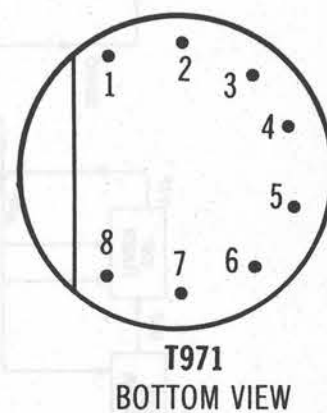
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GENERAL ELECTRIC
CHASSIS 10AB-E/-F/-H







SAFETY PRECAUTIONS

THIS CHASSIS USES A LINE-CONNECTED FULL-WAVE BRIDGE RECTIFIER CIRCUIT. THERE IS ALWAYS A HAZARDOUS VOLTAGE BETWEEN THE CHASSIS AND EARTH GROUND. USE AN ISOLATION TRANSFORMER FOR SERVICING.

SHATTER-PROOF SAFETY GLASSES SHOULD ALWAYS BE WORN WHEN WORKING AROUND AN EXPOSED PICTURE TUBE. BEFORE HANDLING THE TUBE, THOROUGHLY DISCHARGE THE SECOND ANODE TO THE OUTER AQUADAG COATING OF THE PICTURE TUBE. REPLACEMENT PICTURE TUBES MUST HAVE INTEGRAL X-RAY AND IMPLOSION PROTECTION. REPLACE ONLY WITH TUBE OF SAME TYPE NUMBER.

AFTER SERVICING THE RECEIVER, PERFORM THE FOLLOWING SAFETY CHECK:

BEFORE INSTALLING THE CABINET BACK:

A. INSPECT LEAD DRESS:

- 1. No lead should be against a power resistor (2 watts or more).
- 2. High voltage connections must have no sharp points.
- 3. The insulation on antenna leads should not be damaged. The leads should not be dressed close to any high voltage point or AC line connection.
- 4. The AC wiring should be inspected for damaged insulation, frayed wires, pinched leads, or cold solder connections.
- 5. Inspect the AC line cord for broken or damaged insulation.

AFTER INSTALLING THE CABINET BACK:

- A. Connect the VHF antenna to the VHF antenna terminals.
- B. Do not plug the receiver into a power outlet. Connect both blades of the power plug together and place the ON-OFF switch in the ON position.
- C. Measure between the shorted power plug and the following points. Readings should be as indicated.

TEST POINT	MIN. OHMS	MAX. OHMS
ANTENNA TERMINALS – UHF	600K	5.2 MEGS
ANTENNA TERMINALS – VHF	600K	5.2 MEGS
CABINET BACK SCREWS	OPEN CIRCUIT	
ALL METAL CONTROL OR CHANNEL SELECTOR SHAFTS (WITH KNOBS REMOVED)	OPEN CIRCUIT	
ALL NON-REMOVABLE METALLIC KNOBS, PUSH BUTTONS, EARPHONE JACKS, ETC.	OPEN CIRCUIT	
METAL ESCUTCHEONS AND OVERLAYS	OPEN CIRCUIT	
METAL HANDLES	OPEN CIRCUIT	

IF ANY READING IS OUTSIDE LIMITS SPECIFIED, THE CAUSE SHOULD BE IDENTIFIED AND CORRECTED BEFORE OPERATING THE RECEIVER.

CAUTION: X-RAYS

AS PRECAUTIONS AGAINST EMISSION OF X-RAYS IN EXCESS OF THE FEDERAL STANDARD, NEVER APPLY POWER TO THE RECEIVER UNTIL THE FOLLOWING CONDITIONS HAVE BEEN VERIFIED.

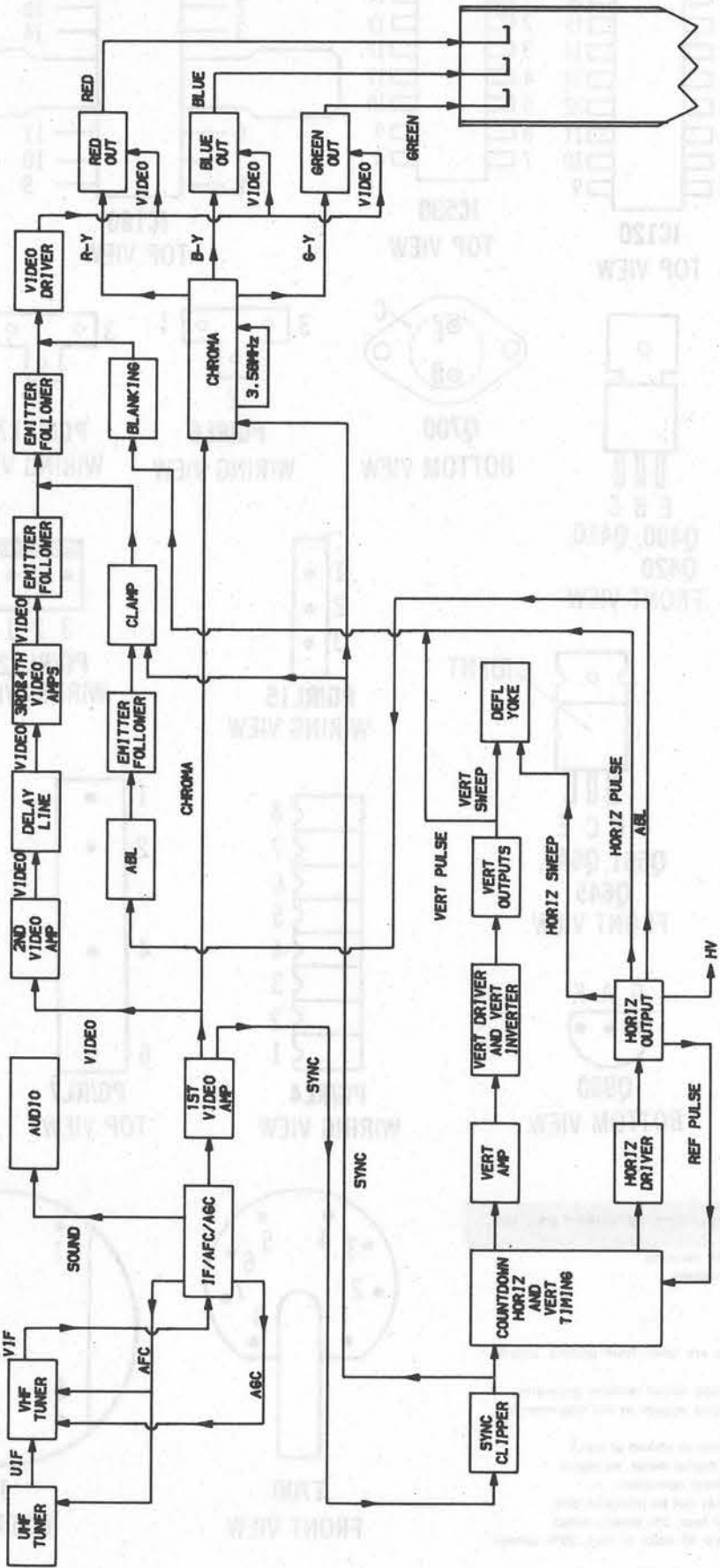
- 1. ALL FACTORY-INSTALLED SHIELDS ARE IN PLACE.
- 2. THE PICTURE TUBE IS A FACTORY SPECIFIED TYPE ONLY.
- 3. THE LINE INPUT VOLTAGE DOES NOT EXCEED 130 VOLTS AC.
- 4. THE HIGH VOLTAGE DOES NOT EXCEED THE VALUES SHOWN IN THE FOLLOWING TABLE WITH THE BRIGHTNESS AND CONTRAST CONTROLS AT MINIMUM (MINIMUM ILLUMINATION ON PICTURE TUBE SCREEN) AT 120 VAC.

CHASSIS	PICTURE TUBE SIZE	MAXIMUM HIGH VOLTAGE
10AB	10"	21KV
13AC/17AC	13" and 17"	26.5KV

NORMAL HIGH VOLTAGE IS AS FOLLOWS AT ZERO BEAM CURRENT (BLACK PICTURE) WITH 120 VAC LINE INPUT. HIGH VOLTAGE IS NOT ADJUSTABLE.

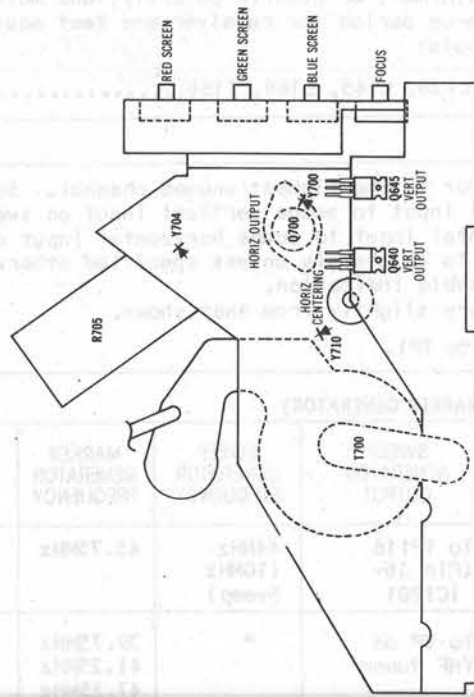
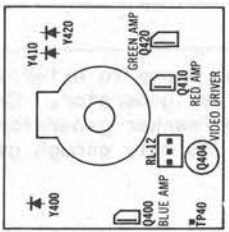
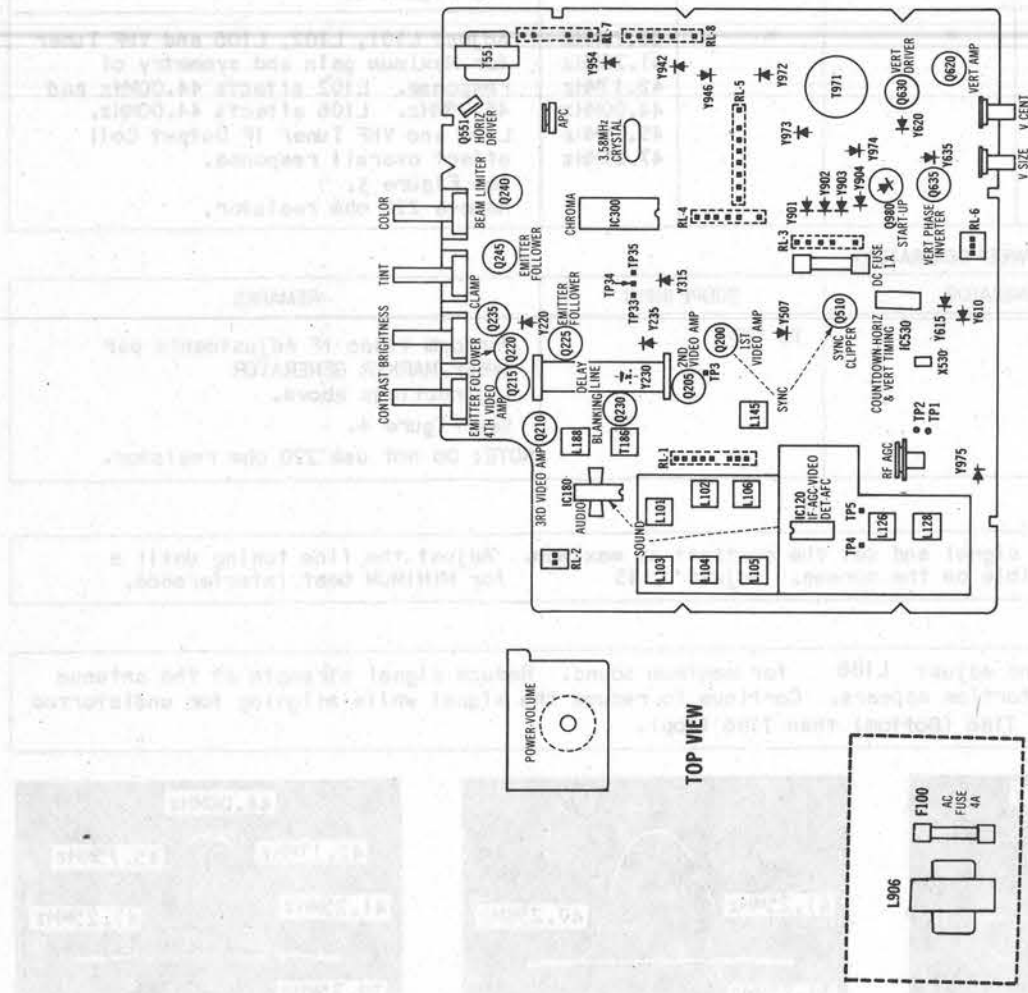
CHASSIS	PICTURE TUBE SIZE	NORMAL HIGH VOLTAGE
10AB	10"	20KV
13AC/17AC	13" and 17"	25.5KV

Courtesy of Manufacturer



RESISTANCE MEASUREMENTS

MEASUREMENTS TAKEN WITH LOW POWER OHMS METER														
ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	PIN 14
IC120	12K	11K	35K	6420	91K	INF	INF	3720	3720	INF	1616	5310	0	560K
												PIN 15	PIN 16	
												10K	11K	
IC180	17K	17K	17K	0	0	5170	5170	7080	INF	INF	INF	0	0	14K
												PIN 15	PIN 16	
												7840	INF	
IC300	3300	3460	3550	2470	2000	2560	2000	8200	28K	30K	INF	0	12K	2660
					PIN 15	PIN 16	PIN 17	PIN 18	PIN 19	PIN 20	PIN 21	PIN 22	PIN 23	PIN 24
					4960	182K	4570	5810	7890	5810	INF	1616	3300	3300
IC530	29K	INF	INF	12K	14K	3460	0	13K	12K	13K	28K	INF	INF	6910
V401	FIL	538K	11K	35K	537K	11K	35K	NC	INF	NC	35K	520K	11K	FIL
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
Q200	470	5550	1409		Q235	2010	94K	INF		Q551	0	390	11K	
Q205	270	470	1184		Q240	1219	2860	8720		Q620	6740	INF	INF	
Q210	3700	1184	910		Q245	2010	8720	528		Q630	INF	INF	1.8M	
Q215	825	910	2300		Q400	INF	3980	34K		Q635	2.7	3710	5300	
Q220	2200	2300	420		Q404	INF	2000	0		Q640	2.7	1.8M	1.6M	
Q225	1000	3380	420		Q410	INF	3970	34K		Q645	4320	5300	2.7	
Q230	420	91K	3490		Q420	INF	3960	34K		Q700	0	.9	24K	
					Q510	0	172K	3150		Q980	K	G	A	
											11K	10K	1.6M	



GENERAL ELECTRIC
CHASSIS 10AB-E/F-H

FOLDER 1

PLACEMENT CHART

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.
Suggested Alignment Tools: GC ELECTRONICS
L101 thru L106, L126, L128, L145, L188, T186.....9296, 9297, 9300.

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication.
Note: Response may vary slightly from that shown.
Connect 6.0 volt bias to TP1.

VIDEO IF ALIGNMENT (SWEEP MARKER GENERATOR)

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP3	To TP116 (Pin 16- IC120)	44MHz (10MHz Sweep)	45.75MHz	Adjust L126 for Maximum. See Figure 1.
"	To TP on VHF tuner	"	39.75MHz 41.25MHz 47.25MHz	Connect a 220 ohm resistor from TP4 to TP5. Adjust L103 for MINIMUM. Adjust L105 for MINIMUM. Adjust L104 for MINIMUM. See Figure 2.
"	"	"	39.75MHz 41.25MHz 42.17MHz 44.00MHz 45.75MHz 47.25MHz	Adjust L101, L102, L106 and VHF Tuner for Maximum gain and symmetry of response. L102 affects 44.00MHz and 45.75MHz. L106 affects 44.00MHz. L101 and VHF Tuner IF Output Coil affect overall response. See Figure 3. Remove 220 ohm resistor.

VIDEO IF ALIGNMENT (BAR SWEEP GENERATOR)

BAR SWEEP GENERATOR	SCOPE INPUT	REMARKS
To TP on VHF Tuner	To TP3	Perform Video IF Adjustments per SWEEP/MARKER GENERATOR instructions above. See Figure 4. NOTE: Do not use 220 ohm resistor.

4.5MHz TRAP ALIGNMENT

Tune in a strong TV signal and set the contrast at maximum. Adjust the fine tuning until a beat pattern is visible on the screen. Adjust L145 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust L188 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting T186 (Bottom) then T186 (Top).

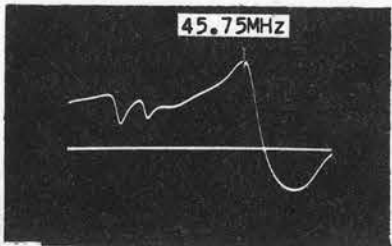


Figure 1

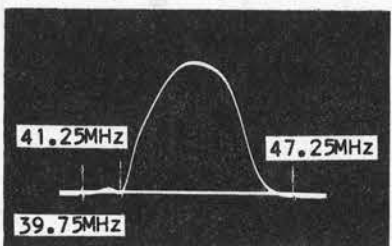


Figure 2

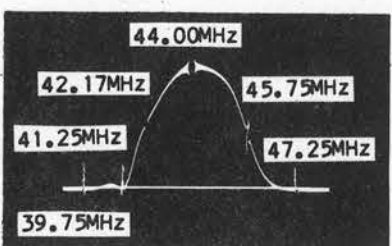
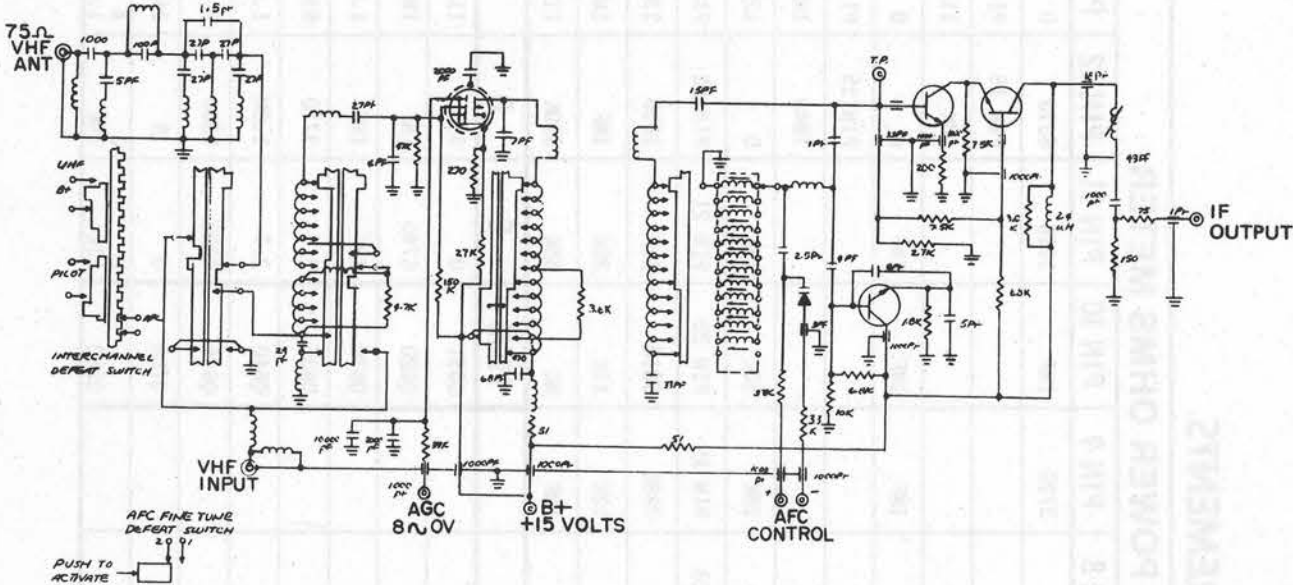
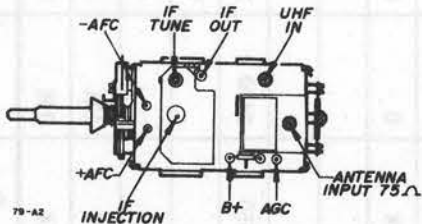


Figure 3



- NOTES:
- 1 ALL SWITCHES ARE SHOWN ON CHANNEL 13.
 - 2 UNITS OF ALL RESISTORS, CONDENSERS & INDUCTANCE ARE OHM, FARAD, & HENRY.
 - 3 UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/4 WATT.

NOTE:
FOR REPAIRS REQUIRING PARTS
ORDER A REPLACEMENT TUNER



VHF TUNER EP86X75
ALPS VAT3-911

Courtesy of the Manufacturer

GENERAL ELECTRIC
CHASSIS 10AB-E/F-I-H

FOLDER 1
VHF TUNER

TV ALIGNMENT INSTRUCTIONS (Continued)

AUTOMATIC FINE TUNING ALIGNMENT

Connect as explained in preliminary instructions unless specified otherwise.

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP on VHF Tuner	To TP105 (Pin 5-IC120)	44MHz (10MHz Sweep)	45.75MHz	Adjust L128 to place 45.75MHz marker at crossover as shown. See Figure 5.

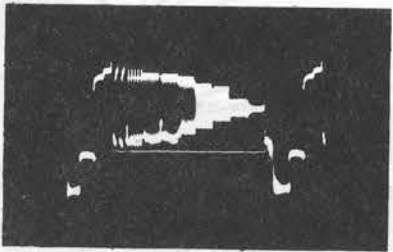
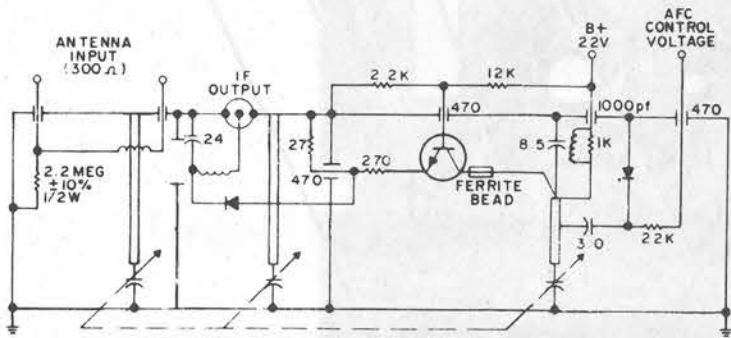


Figure 4

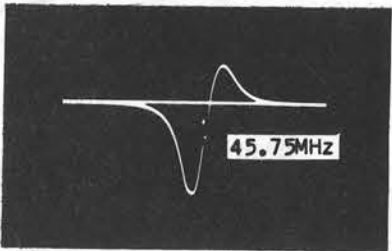
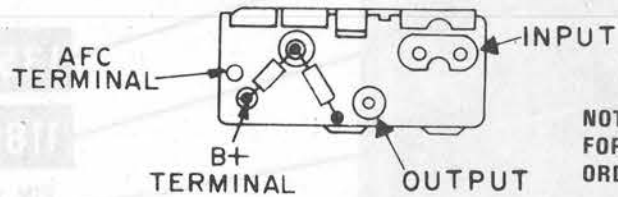


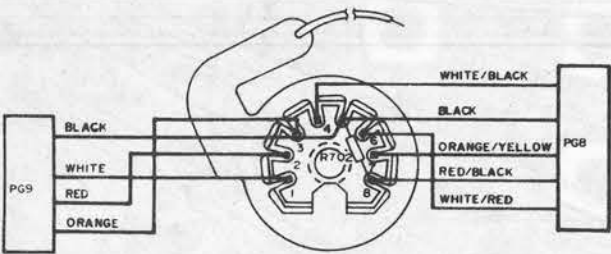
Figure 5



NOTE:
FOR REPAIRS REQUIRING PARTS
ORDER A REPLACEMENT TUNER.

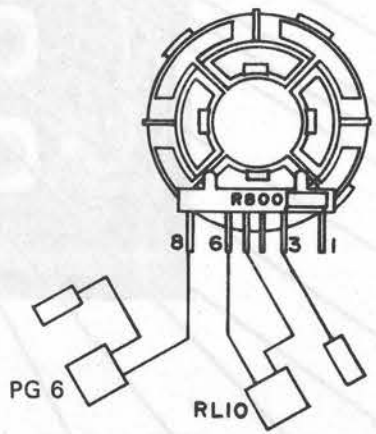
UHF TUNER EP85X70
GENERAL INSTRUMENTS 275-118

Courtesy of the Manufacturer



10" AB CHASSIS

HVT WIRING DIAGRAM

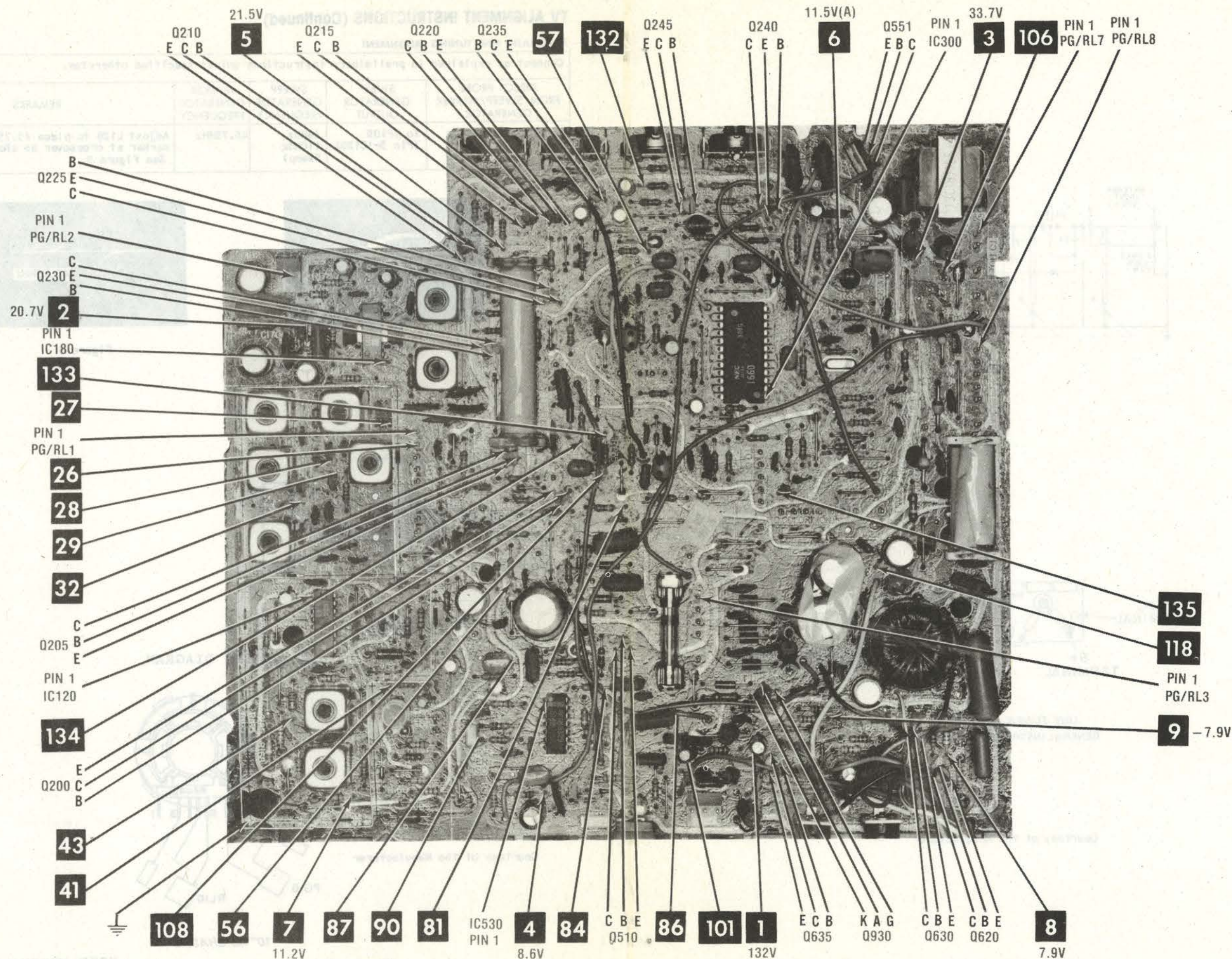


10" AB CHASSIS

YOKE WIRING DIAGRAM

GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

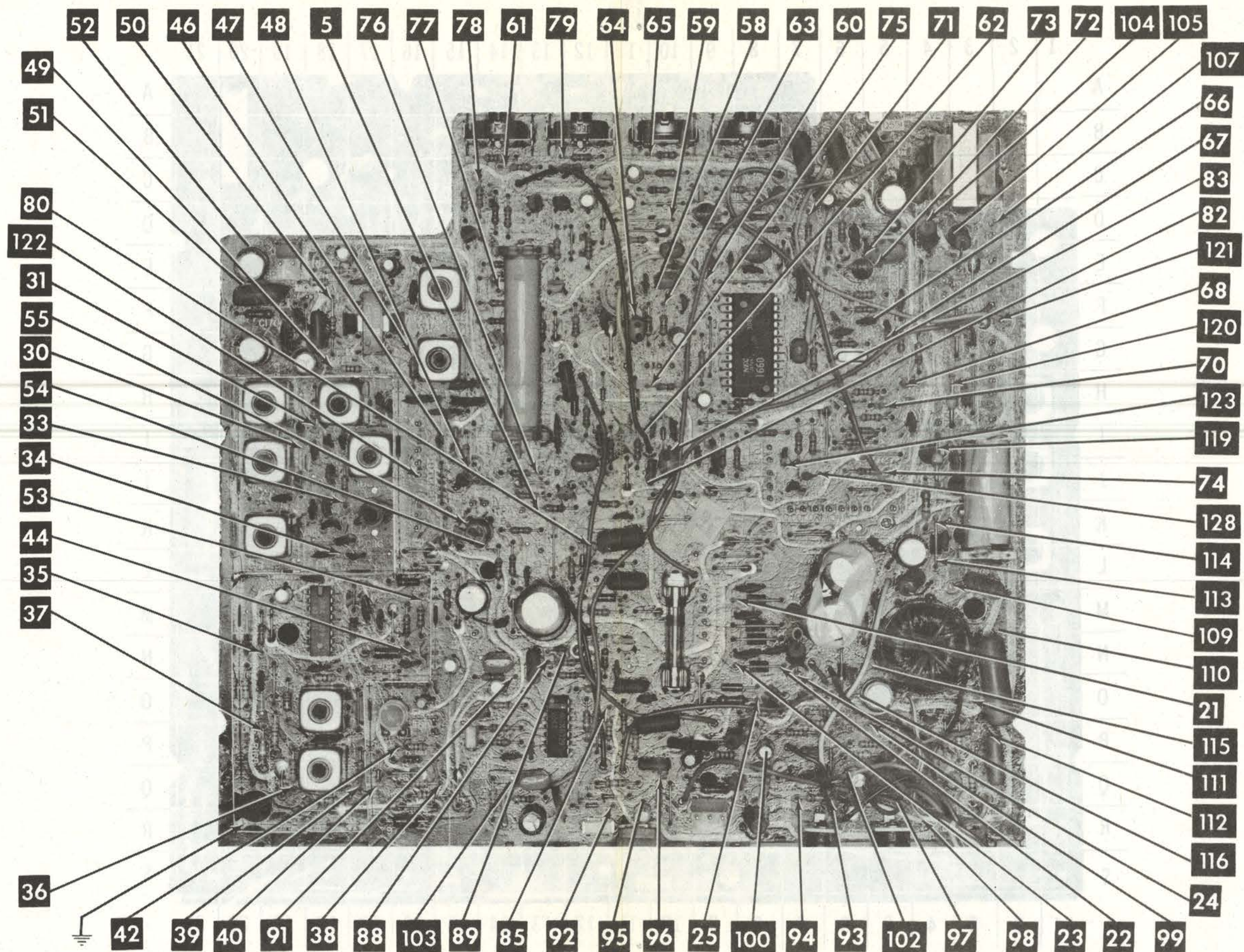
FOLDER 1



A Howard W. Sams CIRCUITRACE Photo

MAIN BOARD

MAIN BOARD



52 50 46 47 48 5 76 77 78 61 79 64 65 59 58 63 60 75 71 62 73 72 104 105

49 51

80 122 31 55 30 54 33 34 53 44 35 37

107 66 67 83 82 121 68 120 70 123 119 74 128 114 113 109 110 21 115 111 112 116 24

36 42 39 40 91 38 88 103 89 85 92 95 96 25 100 94 93 102 97 98 23 22 99

GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

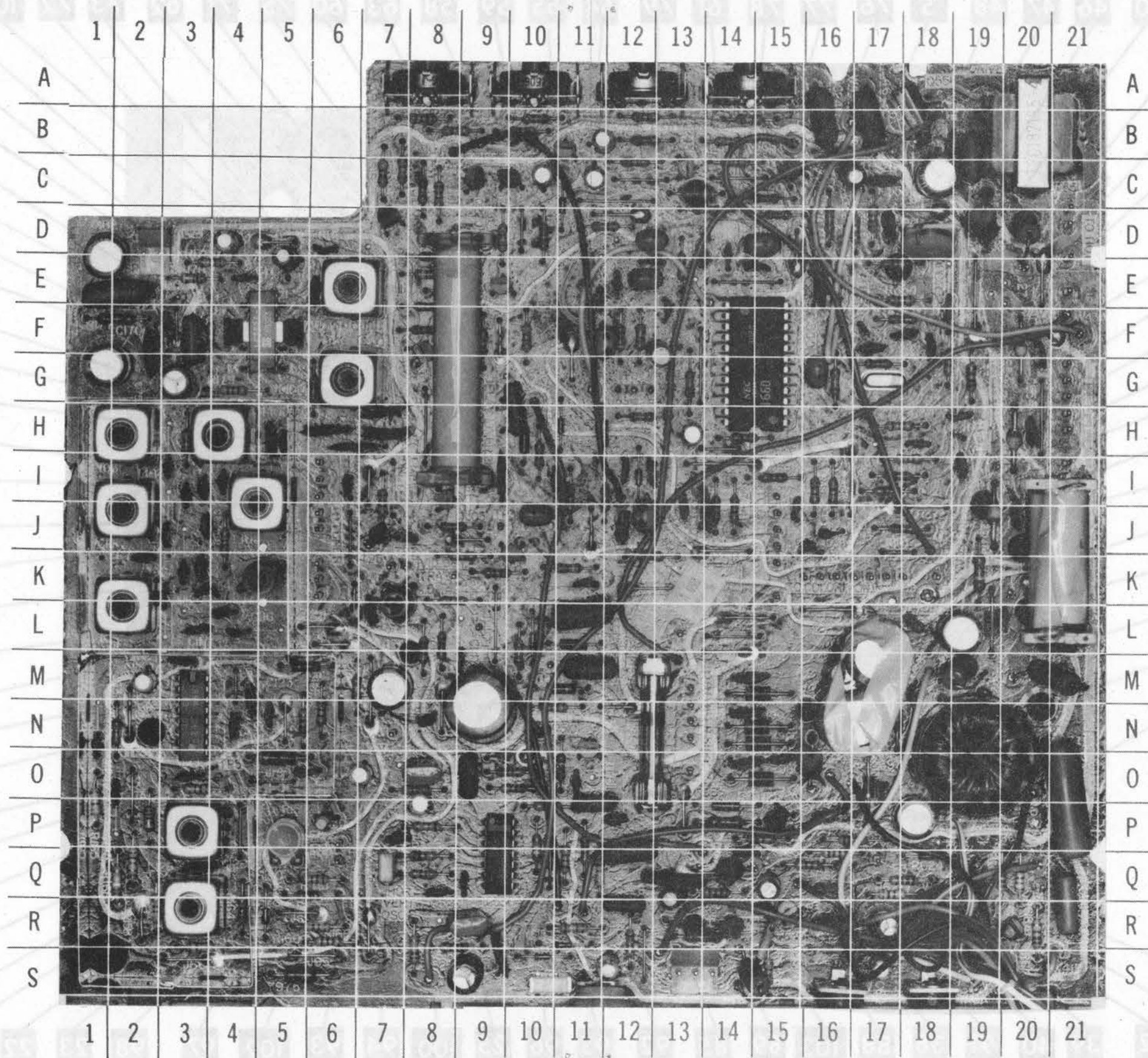
FOLDER 1

MAIN BOARD

MAIN BOARD

CHASSIS 10AB-E/F-H
GENERAL ELECTRIC

MAIN BOARD



A Howard W. Sams GRIDTRACE™ Photo

GENERAL ELECTRIC
CHASSIS 10AB-E/F-H

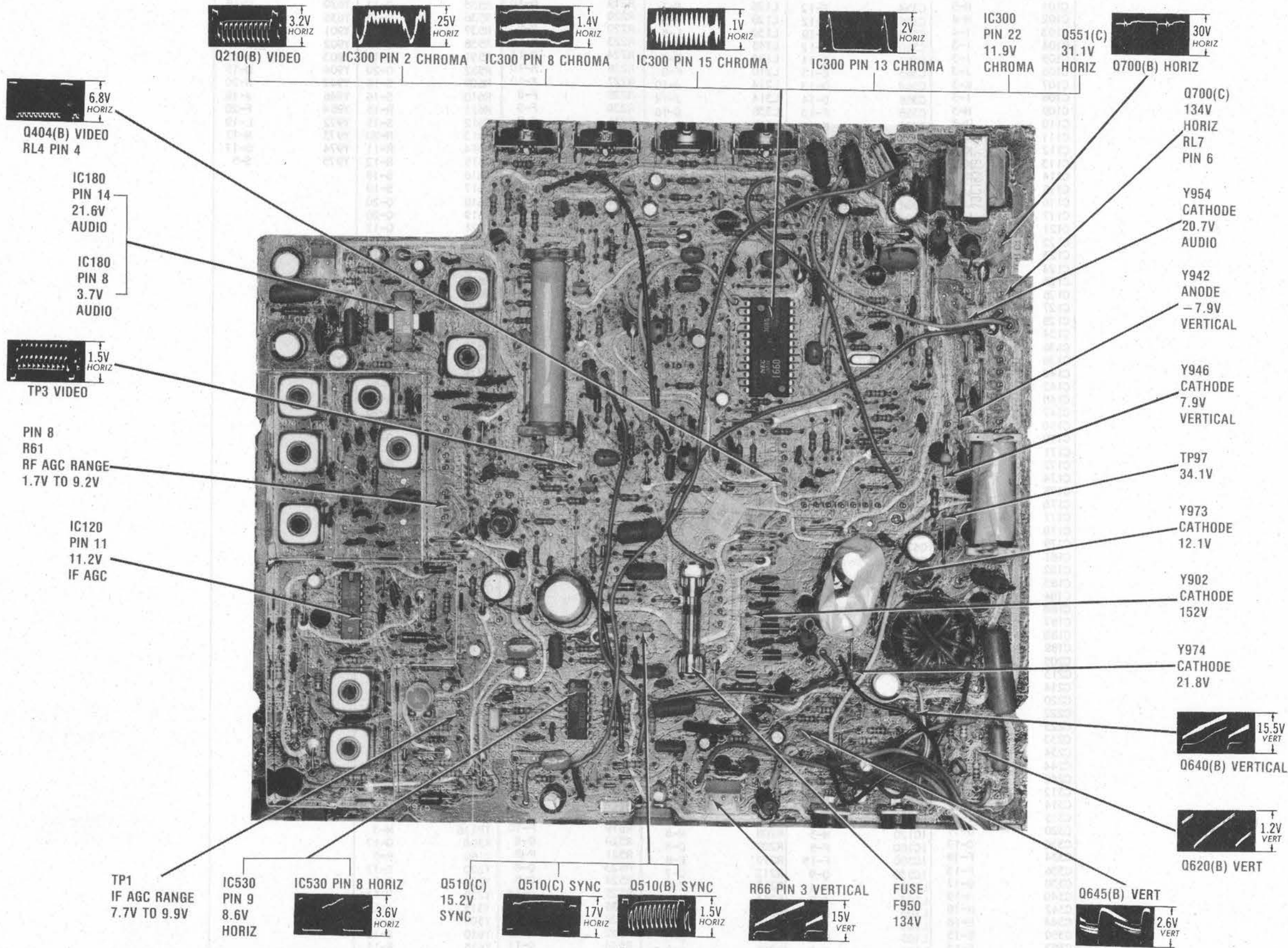
MAIN BOARD

MAIN BOARD GridTrace LOCATION GUIDE

C101	H-5	C354	F-12	L126	P-3	R219	D-10	R535	Q-11	Y620	Q-18
C102	H-4	C356	F-12	L128	R-3	R220	D-9	R536	B-18	Y635	Q-17
C103	I-4	C358	I-19	L130	L-5	R222	B-9	R537	S-8	Y901	M-15
C104	I-3	C360	E-12	L145	K-7	R223	B-10	R538	Q-10	Y902	N-15
C105	I-3	C362	E-11	L188	E-6	R224	D-14	R551	D-19	Y903	N-15
C106	J-3	C363	E-13	L210	F-8	R226	A-10	R552	D-20	Y904	O-15
C107	K-3	C364	D-13	L214	J-10	R227	A-10	R609	S-16	Y942	H-20
C108	I-3	C366	D-14	L314	J-12	R228	F-8	R610	S-16	Y946	J-19
C109	H-3	C368	F-13	L338	Q-16	R230	F-9	R611	R-15	Y954	F-20
C110	J-3	C370	E-16	L362	E-12	R231	F-9	R612	S-15	Y972	L-19
C111	K-2	C372	J-13	L363	D-12	R232	F-10	R613	R-20	Y973	N-17
C112	K-3	C374	H-13	L364	F-12	R233	H-10	R614	R-11	Y974	Q-17
C113	K-2	C377	J-14	L366	D-15	R234	H-10	R615	R-12	Y975	S-5
C114	K-3	C380	J-15	L970	J-20	R235	I-11	R616	S-18		
C115	L-4	C382	J-16	Q200	J-10	R240	C-15	R617	S-19		
C116	L-4	C384	J-16	Q205	I-8	R241	C-14	R618	Q-20		
C117	L-3	C504	K-11	Q210	D-7	R242	B-14	R619	Q-20		
C121	M-3	C506	L-11	Q215	Q-9	R244	D-15	R621	Q-17		
C122	M-2	C507	M-11	Q220	Q-10	R245	B-12	R624	Q-18		
C123	N-5	C517	Q-9	Q225	E-9	R246	B-16	R625	Q-16		
C124	N-1	C518	Q-8	Q230	F-8	R247	C-12	R626	Q-16		
C125	Q-2	C519	Q-9	Q235	E-11	R248	C-13	R627	Q-14		
C126	Q-3	C520	P-8	Q240	Q-15	R312	K-13	R635	P-16		
C127	P-2	C521	P-7	Q245	Q-13	R315	I-12	R640	R-14		
C128	Q-3	C523	Q-8	Q510	N-11	R316	H-12	R642	R-19		
C134	Q-5	C524	Q-9	Q551	A-18	R322	E-17	R649	S-15		
C136	T-4	C525	S-9	Q620	R-20	R324	D-18	R650	R-14		
C138	M-4	C526	R-12	Q630	Q-19	R326	D-17	R960	J-7		
C140	Q-7	C527	Q-12	Q635	R-15	R328	C-17	R970	M-21		
C142	M-7	C528	P-12	Q980	P-15	R330	D-16	R973	M-19		
C145	L-7	C530	S-9	R100	N-8	R332	D-17	R975	K-19		
C147	M-9	C532	Q-11	R101	J-4	R334	E-17	R976	P-16		
C150	P-6	C534	P-11	R123	N-2	R336	F-17	R977	L-18		
C170	Q-1	C535	R-9	R126	Q-3	R337	G-17	R980	Q-16		
C171	F-2	C550	B-19	R132	N-6	R338	G-17	R981	P-15		
C172	D-5	C551	B-19	R134	N-5	R340	I-17	R982	P-14		
C174	F-3	C555	Q-18	R140	M-6	R341	G-19	R983	P-14		
C175	Q-3	C610	S-10	R141	M-5	R342	H-17	RL-1	I-6		
C176	D-4	C615	S-12	R145	L-8	R344	G-18	RL-2	D-2		
C177	E-2	C620	P-19	R146	K-8	R346	I-18	RL-3	M-13		
C178	F-3	C625	Q-16	R147	L-8	R348	I-17	RL-4	K-15		
C179	E-4	C628	Q-15	R150	P-5	R360	D-11	RL-5	K-18		
C181	I-6	C640	R-17	R151	Q-6	R362	D-13	RL-6	S-14		
C182	D-1	C644	S-17	R152	P-5	R364	A-12	RL-7	C-21		
C183	H-6	C650	R-13	R154	R-3	R366	G-13	RL-8	G-21		
C184	H-6	C901	M-14	R156	R-2	R368	A-14	T186	G-6		
C186	H-7	C902	N-14	R158	Q-2	R369	B-14	T240	B-16		
C187	H-7	C903	Q-14	R160	R-6	R370	B-12	T551	B-20		
C188	E-6	C904	Q-15	R162	Q-5	R372	J-17	T971	Q-19		
C189	D-6	C911	R-21	R164	R-4	R380	H-14	TP1	Q-6		
C205	N-9	C942	H-20	R165	P-11	R381	J-14	TP2	P-6		
C213	E-8	C943	M-17	R166	R-6	R382	I-16	TP3	J-9		
C214	I-9	C946	J-20	R168	Q-2	R383	I-16	TP4	Q-3		
C220	Q-10	C947	N-17	R170	F-3	R384	I-15	TP5	Q-4		
C222	Q-11	C954	F-20	R172	I-7	R385	J-14	TP6	K-7		
C223	B-10	C971	Q-21	R176	F-4	R388	H-12	TP7	K-8		
C233	I-11	C972	L-20	R177	F-1	R501	K-11	TP16	E-3		
C234	H-10	C973	M-18	R178	E-3	R506	L-11	TP33	G-12		
C244	B-11	C974	Q-17	R179	G-4	R507	M-11	TP34	G-12		
C246	B-17	C976	P-18	R184	Q-6	R508	M-10	TP35	G-12		
C312	J-12	C977	L-19	R202	K-9	R510	N-10	TP37	H-19		
C314	I-12	C980	Q-14	R203	K-9	R515	R-8	TP104	Q-3		
C315	I-12	F950	N-12	R206	J-8	R517	Q-10	TP105	Q-4		
C320	D-17	IC120	N-3	R208	H-8	R519	P-10	TP116	M-3		
C330	Q-17	IC180	F-5	R209	D-8	R520	Q-8	X300	G-17		
C334	F-18	IC300	F-15	R210	E-8	R521	P-8	Y160	R-5		
C336	F-13	IC530	Q-9	R212	Q-7	R523	Q-8	Y220	Q-11		
C338	G-17	L101	H-4	R213	F-8	R524	Q-8	Y230	G-8		
C340	H-19	L102	I-5	R214	Q-7	R525	Q-14	Y235	H-11		
C342	H-18	L103	H-2	R215	A-8	R526	Q-11	Y315	I-12		
C344	E-18	L104	J-2	R216	Q-8	R528	P-10	Y507	L-10		
C350	E-15	L105	K-2	R217	Q-8	R532	Q-11	Y610	S-10		
C352	F-13	L106	K-4	R218	B-8	R534	Q-11	Y615	R-11		

GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

FOLDER 1



GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

FOLDER 1

MAIN BOARD

MAIN BOARD

A Howard W. Sams QUICK-CHECKS™ Photo

MISCELLANEOUS ADJUSTMENTS

AGC ADJUSTMENT

Tune in a strong station. Set Contrast and Brightness Controls for normal viewing. Adjust RF AGC Control (R150) for best picture without snow or cross modulation. Check operation on all receivable channels.

APC ADJUSTMENT

Tune in a color picture. Adjust Brightness, Contrast and Color Controls for a normal picture. Connect a Jumper from TP34 to TP33 and a Jumper from TP35 to TP33. Adjust APC Control (R324) until colors stop or slowly float across the screen.

GREY SCALE

Tune in a color picture. Set the Brightness, Contrast, Color and Red, Blue and Green Screen Controls fully counterclockwise. Connect a Jumper from TP40 (CRT Socket Board) to ground. Adjust each Screen Control, one at a time, clockwise until the screen just lights. Then adjust the controls counterclockwise until the screen just goes black. Remove jumper from TP40. Turn the Brightness Control clockwise until the screen just lights. If necessary, readjust the screen controls for grey scale in the low brightness areas of the picture.

Adjust the Brightness and Contrast Controls for a normal picture. If necessary, clip or resolder Resistors R407, R417 or R427 to obtain good grey scale in high brightness areas.

PURITY ADJUSTMENTS

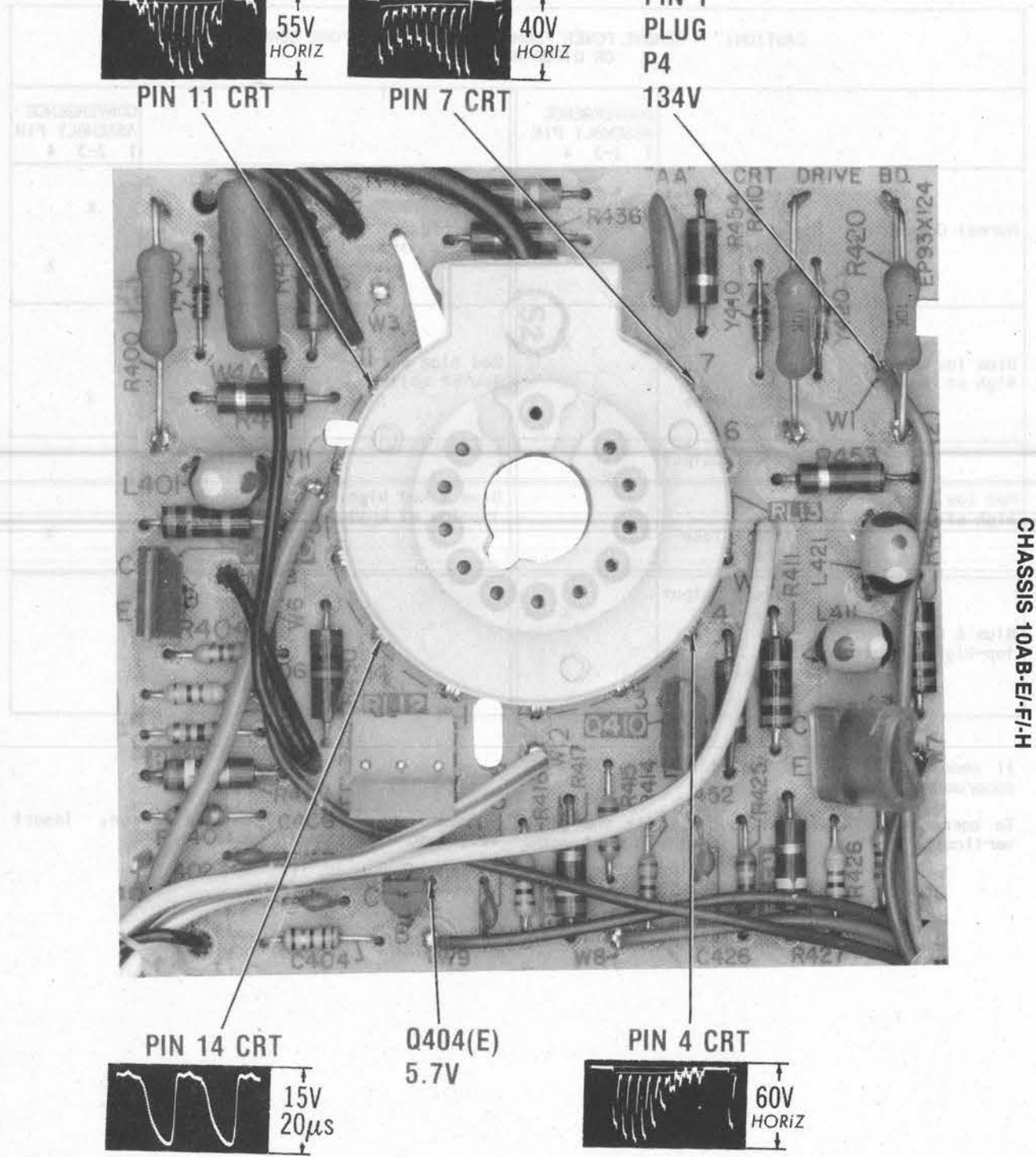
If the picture tube appears to be magnetized, use a degaussing coil to demagnetize the picture tube and mounting brackets. Connect a color bar generator to the antenna terminals and tune in a crosshatch pattern. Set color control to MINIMUM.

Adjust the purity rings so that their rounded tabs are together and positioned vertically. Converge the raster at the center of the screen. Turn the Red and Blue Screen Controls fully counterclockwise to obtain a green raster.

Loosen the deflection yoke and slide it back against the convergence assembly. Adjust the purity rings to position the green stripe at the center of the screen. Slide the yoke forward until a pure green screen is obtained. Tighten yoke clamp.

CONVERGENCE ADJUSTMENTS

If the picture tube has not been properly aligned, the picture will be distorted. The following steps should be followed to align the picture tube. First, tune in a strong station. Then, adjust the convergence controls until the picture is clear and sharp. Finally, check the picture for any distortion and adjust the controls as necessary.



CONVERGENCE ADJUSTMENTS

If the blue and/or red horizontal lines at the top and bottom are misconverged from the green line where they cross the vertical center line, connect the push-on connector wires from the vertical output plug and the vertical yoke

to pins 2 and 3 of the static convergence assembly. Then observe the screen and reconnect the wires as indicated in the chart below.

CAUTION: REMOVE POWER FROM THE RECEIVER BEFORE CONNECTING OR DISCONNECTING WIRES.					
		CONVERGENCE ASSEMBLY PIN 1 2-3 4			CONVERGENCE ASSEMBLY PIN 1 2-3 4
Normal Connection	Vertical Output Wire	X	Blue high at top-low and bottom	Vertical Output Wire	X
	Vertical Yoke Wire	X		Vertical Yoke Wire	X
Blue low at top-high at bottom	Vertical Output Wire	X	Red high at top-low at bottom	Vertical Output Wire	X
	Vertical Yoke Wire	X		Vertical Yoke Wire	X
Red low at top-high at bottom	Vertical Output Wire	X	Blue & Red high at top-low at bottom	Vertical Output Wire	X
	Vertical Yoke Wire	X		Vertical Yoke Wire	X
Blue & Red low at top-high at bottom	Vertical Output Wire	X			
	Vertical Yoke Wire	X			

If necessary, readjust static magnets for best compromise.

To correct for edge convergence, tilt the yoke vertically or horizontally to obtain best con-

vergence at the edges of the screen. Insert wedges to hold yoke in position.

SERVICING IN THE FIELD

CRT IMPLSION PROTECTION AND CLEANING

Implsion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A 7.5-amp fuse is used for low-voltage power-supply protection. (See photo, Cabinet - Rear View.)

A 4-amp fuse is used for AC line protection. (See photo, Cabinet - Rear View.)

UHF/VHF TUNER

Both the UHF and VHF tuner employ a detent

mechanism for channel selection. Fine tuning is adjusted by rotating the fine tuning knob.

FOCUS

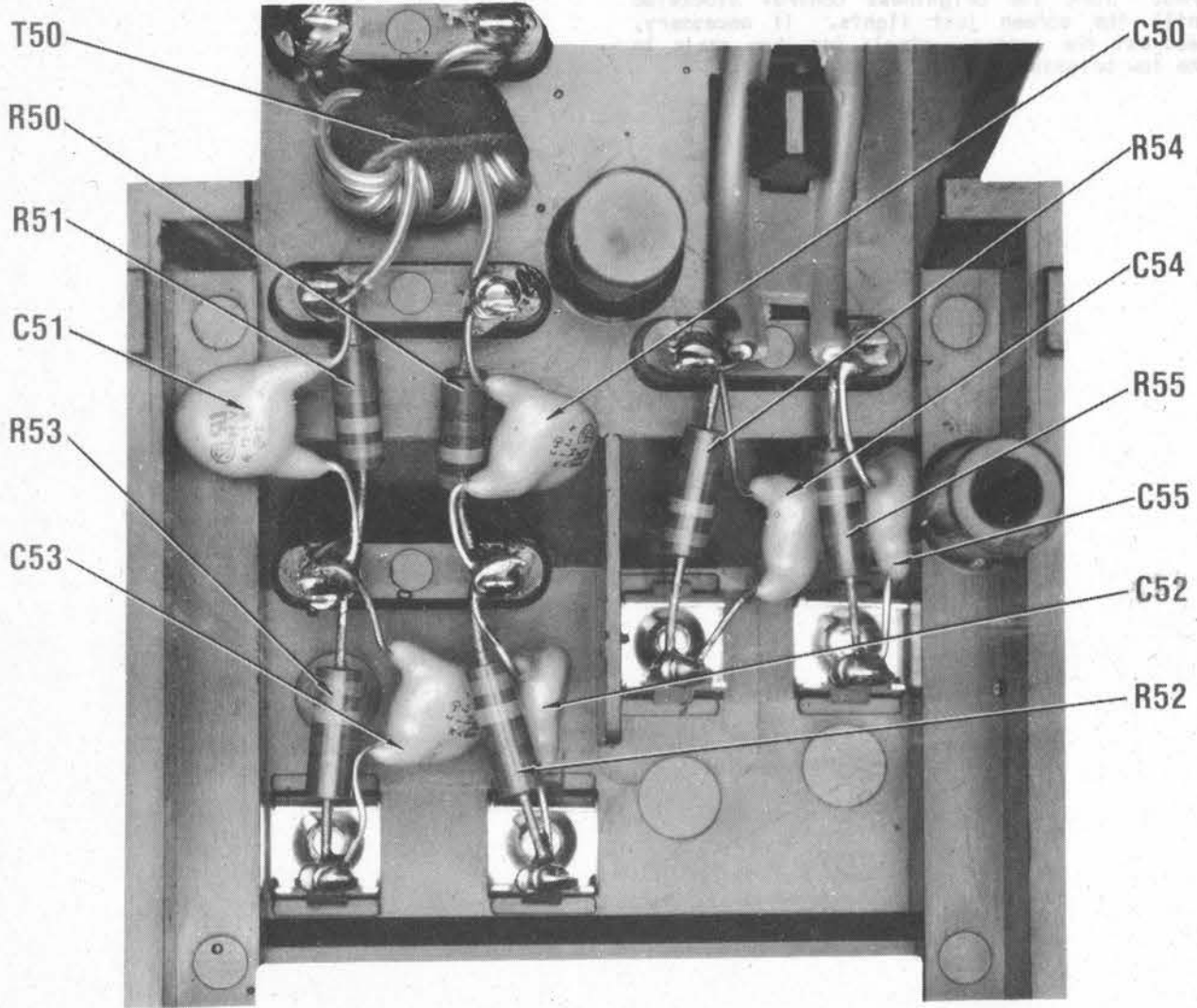
The focus may be varied by a focus control (See photo, Cabinet - Rear View.)

AGC

The AGC may be varied by the RF AGC control. (See Placement Chart.)

CENTERING

Horizontal centering is accomplished by proper adjustment of the horizontal centering control. (See photo, Cabinet - Rear View.)



GENERAL ELECTRIC CHASSIS 10AB-E/F-H

FOLDER 1

ANTENNA INPUT BOARD

TROUBLESHOOTING (Continued)

SYNC

If there is no vertical or horizontal sync, check the voltages, waveforms and components associated with 1st Video IF Transistor (Q200) and Sync Clipper Transistor (Q510). If there is no vertical sync, check the voltages and components associated with TP51 and pin 10 of Countdown Circuit Horizontal and Vertical Timing IC (IC530). If there is no horizontal sync, check the voltages and waveforms associated with pin 14 of IC530 and TP51.

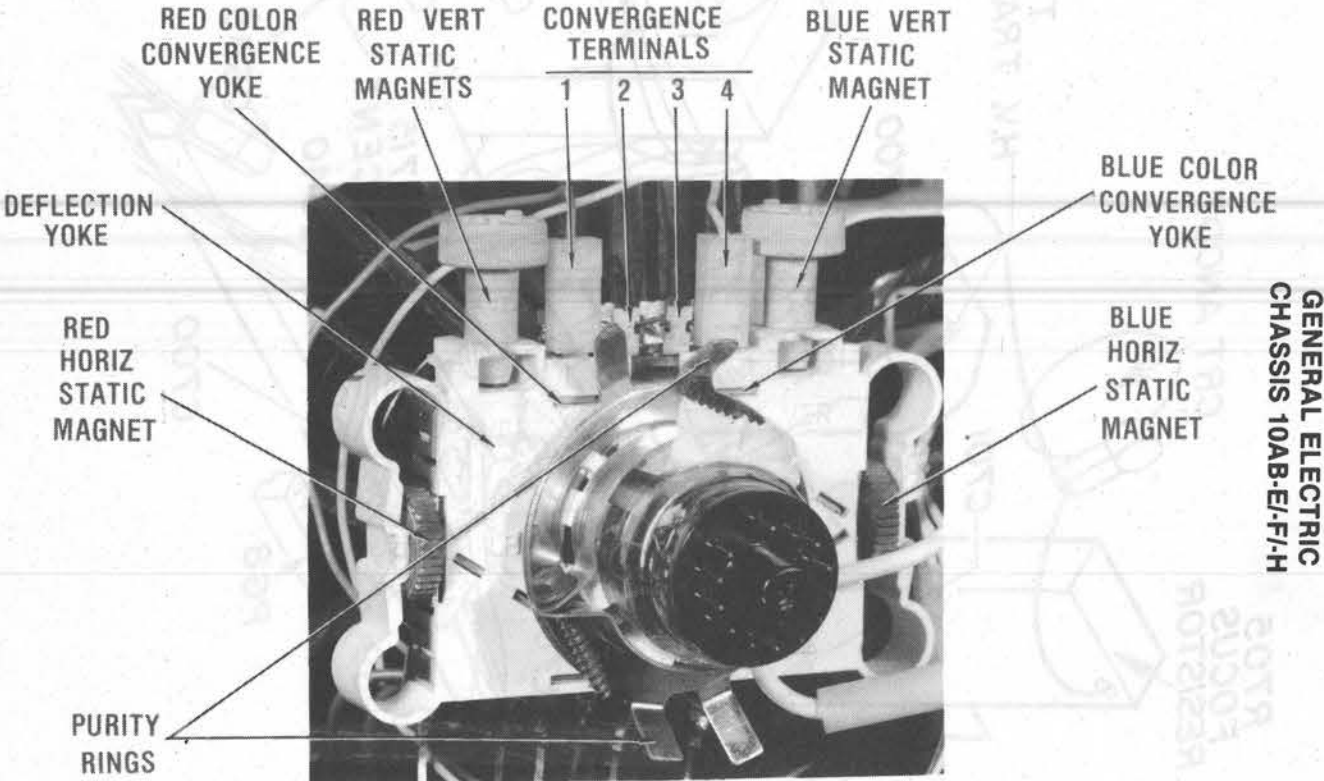
RASTER

If there is no raster but High Voltage is present, check the CRT and CRT voltages and Video Driver Transistor (Q404), Blue, Red and Green Output Transistors (Q400, Q410 and Q420). If there is no Green, check the voltages and components associated with pin 1 of Chroma IC (IC300) and Green Output Transistor (Q420). If there is no Blue, check the voltages and components associated with pin 23 of IC300 and Blue Output Transistor (Q400). If there is no Red, check voltages and components associated with pin 24 of IC300 and Red Output Transistor (Q410). If the raster has a keystone shape, check the deflection yoke. If the raster has

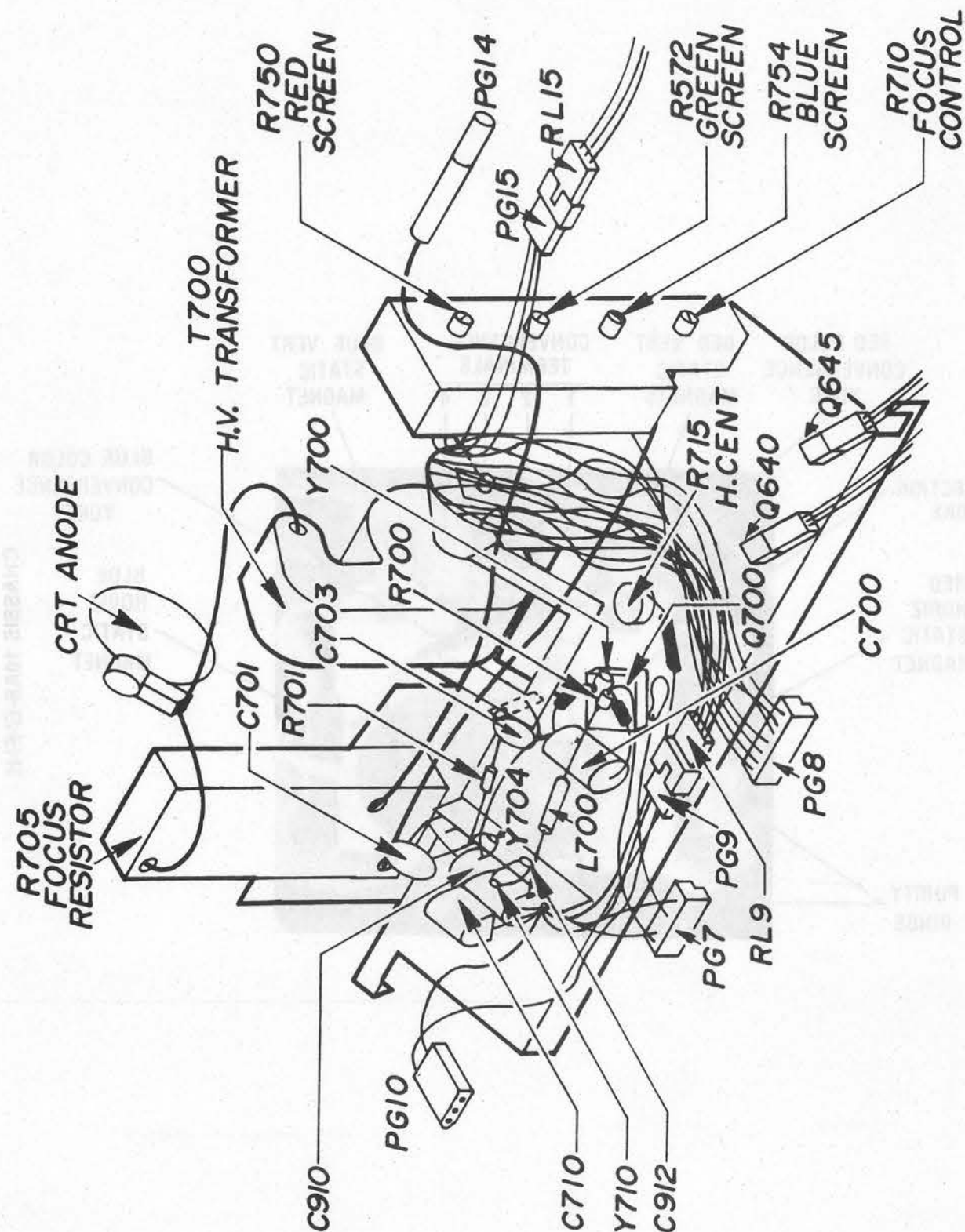
height or width problems, check the "Vertical", "Horizontal" and "Power Supply" sections of this Troubleshooting guide.

CHROMA

If there is no color, check for a chroma signal at pin 15 of Chroma IC (IC300). If the Chroma signal is absent, check components associated with TP3 and pin 15 of IC300. If a chroma signal is present at pin 15 of IC300, check for the proper color waveforms at pins 1, 23 and 24 of IC300. If the waveforms are absent, check the voltages, waveforms and components associated with pins 1 thru 24 of IC300. Check to be sure the 3.58MHz oscillator is operating at the proper frequency. Check components associated with Color Control (R368). If there is improper hue, check voltages and components associated with Tint Control (R364) and APC circuit. If there is no Green, check voltages and components associated with pin 1 of IC300 and the Green Output Transistor (Q420). If there is no Blue, check voltages and components associated with pin 23 of IC300 and the Blue Output Transistor (Q400). If there is no Red, check voltages and components associated with pin 24 of IC300 and the Red Output Transistor (Q410).



LAYOUT DIAGRAMS



Courtesy of the Manufacturer

SWEEP COMPONENT LOCATION

TROUBLESHOOTING

POWER SUPPLY

If there is no raster or sound, check AC Fuse (F900) and DC Fuse (F950). If the AC Fuse is open, check Bridge Rectifier Diodes Y901 thru Y904, Capacitors C900 thru C904 and Electrolytic C920. If DC Fuse is open, check Blue, Red and Green Output Transistors (Q400, Q410, Q420) and the Horizontal Output Transistor (Q700). If both fuses are good, apply 120V AC and check for 135V at Fuse F950. If the voltage is absent, check Line Filter (L900), Power Switch (S175), Plug PG3 and Resistor R906. If 135V is present at Fuse F950, check for 32.6V at the cathode of Start-up SCR (Q980). If 32.6V is absent, check the voltages and components associated with SCR Q980. If 32.6V is present, refer to the "Horizontal" section of this Troubleshooting guide.

HORIZONTAL

If there is no horizontal sweep, inject a horizontal signal at the base of Horizontal Output Transistor (Q700). If the horizontal deflection returns, check voltages, waveforms and components associated with pins 1 thru 9 of Countdown Circuit, Horizontal and Vertical Timing IC (IC530) and Horizontal Driver Transistor (Q551). If horizontal deflection does not return, check voltages and components associated with Transistor Q700, Horizontal Output Transformer (T700), Saturable Reactor Transformer (T971) and the Deflection Yoke (T820). Check Diodes Y700, Y704, Y942, Y946, Y954, Y972, Y973 and Y974. Check for 803V at the cathode of Diode Y704, -7.9V at anode of Diode Y942, 7.9V at the cathode of Diode Y946, 20.7V at the cathode of Diode Y954, 33.7V at the cathode of Diode Y972, 11.5V at the cathode of Diode Y973, and 21.5V at the cathode of Diode Y974. If the horizontal oscillator is off frequency, check the voltages, waveforms and components associated with pins 1 thru 6 of IC530. Horizontal linearity or foldover problems may be caused by capacitors C700, C703 and C710 being defective. The high voltage rectifier is part of Transformer T700 and may be defective.

IF-AGC

If there is no picture or sound, inject an IF signal at the IF Input and check for picture on the CRT. If a picture is present, check the Tuner, Tuner AGC and Tuner AFC circuits. If a picture is not present on the CRT, check for a video waveform at TP3. If a video waveform is present at TP3, refer to the "Video" section of this Troubleshooting guide. If the video is not present at TP3, apply AGC bias to pin 14 of IF/AGC/AGC IC (IC120). If the video is present at TP3, check voltages and components associated with pin 14 of IC120. If the video is still absent at TP3 with AGC bias applied, check the voltages, waveforms and components associated with pins 1 thru 16 of IC120, IF Input and 1st Video Amplifier Transistor (Q200). A defective AGC circuit can cause an overloaded picture, excessive snow or loss of picture and sound. See AGC Voltage Chart for voltages that change with signal.

AGC VOLTAGE CHART

NOTE: Voltages taken using a Keyed-Rainbow generator for signal.

IC120	Pin 4	4.66V
IC120	Pin 14	7.48V

AUDIO

If there is no audio, inject a 4.5MHz modulated audio IF signal at either side Capacitor C181 and check for audio at the speaker. If audio is now present, check components associated with C181 and pin 12 of IF/AGC/AGC IC (IC120). If the audio is still absent at the speaker, check for an audio signal at pin 11 of Audio IC (IC180). If an audio signal is present, check components associated with the speaker and pin 11 of IC180. If an audio signal is not present at pin 11 of IC180, check the voltages, waveforms and components associated with pins 1 thru 16 of IC180.

VIDEO

If there is no video, inject a video signal at TP3 and check for a picture on the CRT. If a picture is present, refer to the "IF-AGC" section of this Troubleshooting guide. If a picture is not present, check for a video waveform at the base of Video Driver Transistor (Q404). If a waveform is present, check the voltages, waveforms and components associated with Transistor Q404, the Blue, Red, Green Output Transistors (Q400, Q410, Q420) and the CRT. If a video waveform is not present at the base of Transistor Q404, check the voltages, waveforms and components associated with 2nd Video Amp Transistor (Q205), 3rd Video Amp Transistor (Q210), 4th Video Amp Transistor (Q215), Emitter Follower Transistors (Q220, Q225), and Blanking Transistor (Q230). If there is excessive or insufficient brightness, check the voltages and components associated with Clamp Transistor (Q235), ABL Transistor (Q240) and Emitter Follower Transistor (Q245). If vertical retrace lines are visible on the CRT, check the voltages and components associated with Transistor Q230.

VERTICAL

If there is no vertical deflection, inject a vertical signal at pin 12 of Countdown Circuit Horizontal and Vertical Timing IC (IC530). If the vertical deflection returns, check the voltages, waveforms and components associated with pins 10, 11 and 12 of IC530. If the vertical deflection does not return, check voltages, waveforms and components associated with 1st Vertical Amp Transistor (Q620), 2nd Vertical Driver Transistor (Q630), 3rd Vertical Inverter Transistor (Q635), Vertical Output Transistors (Q640 and Q645) and the deflection yoke. If the vertical oscillator is off frequency, check the voltages, waveforms and components associated with pins 9 thru 12 of IC530. Vertical linearity or foldover problems can be caused by Electrolytics C610, C615, C628, C640 or C644 being defective.

GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

FOLDER 1

TROUBLESHOOTING AID

Note: Waveforms taken with triggered scope, Keyed-Rainbow generator. Schematic voltages measured with digital meter, no signal. Controls adjusted for normal operation.

PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Check AC power supply and sources generated from Horizontal Output Transformer (T700). Refer to "Troubleshooting" Power Supply and Horizontal circuits.

NO PIC, NO SOUND, HAS RASTER: Check IF-AGC and source voltages from Horizontal Output Transformer (T700). Refer to "Troubleshooting" IF-AGC and Horizontal circuits.

NO PIC, HAS SOUND, NO RASTER: Check Horizontal Output Transformer (T700) sources and Video circuit. Refer to "Troubleshooting" Horizontal and Video circuits.

NO PIC, HAS SOUND, HAS RASTER: Refer to "Troubleshooting" Video circuit.

HAS PIC, NO SOUND: Refer to "Troubleshooting" Audio circuit.

OVERLOADED PICTURE: Refer to "Troubleshooting" IF-AGC circuit.

LOW OR EXCESSIVE BRIGHTNESS: Check Video and Luminance circuits. Refer to "Troubleshooting" Video circuit.

SWEEP

NO RASTER, HAS SOUND: Check HV rectifier, Part of Horizontal Output Transformer (T700). Refer to "Troubleshooting" Horizontal circuit.

NO RASTER, NO SOUND: Refer to "Troubleshooting" Horizontal circuit.

NO VERT DEFLECTION: Refer to "Troubleshooting" Vertical circuit.

POOR VERT LIN OR FOLDOVER: Refer to "Troubleshooting" Vertical circuit.

POOR HORIZ LIN OR FOLDOVER: Refer to "Troubleshooting" Horizontal circuit.

NARROW PICTURE: Refer to "Troubleshooting" Horizontal circuit.

VERT OFF FREQUENCY: Refer to "Troubleshooting" Vertical circuit.

HORIZ OFF FREQUENCY: Refer to "Troubleshooting" Horizontal circuit.

SYNC

NO VERT/HORIZ SYNC: Refer to "Troubleshooting" Sync circuit.

RASTER

YELLOW (NO BLUE): Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

CYAN (NO RED): Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

MAGENTA (NO GREEN): Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

COLOR (B/W operating normally)

NO COLOR: Refer to "Troubleshooting" Chroma circuit.

WEAK COLOR: Refer to "Troubleshooting" Chroma circuit.

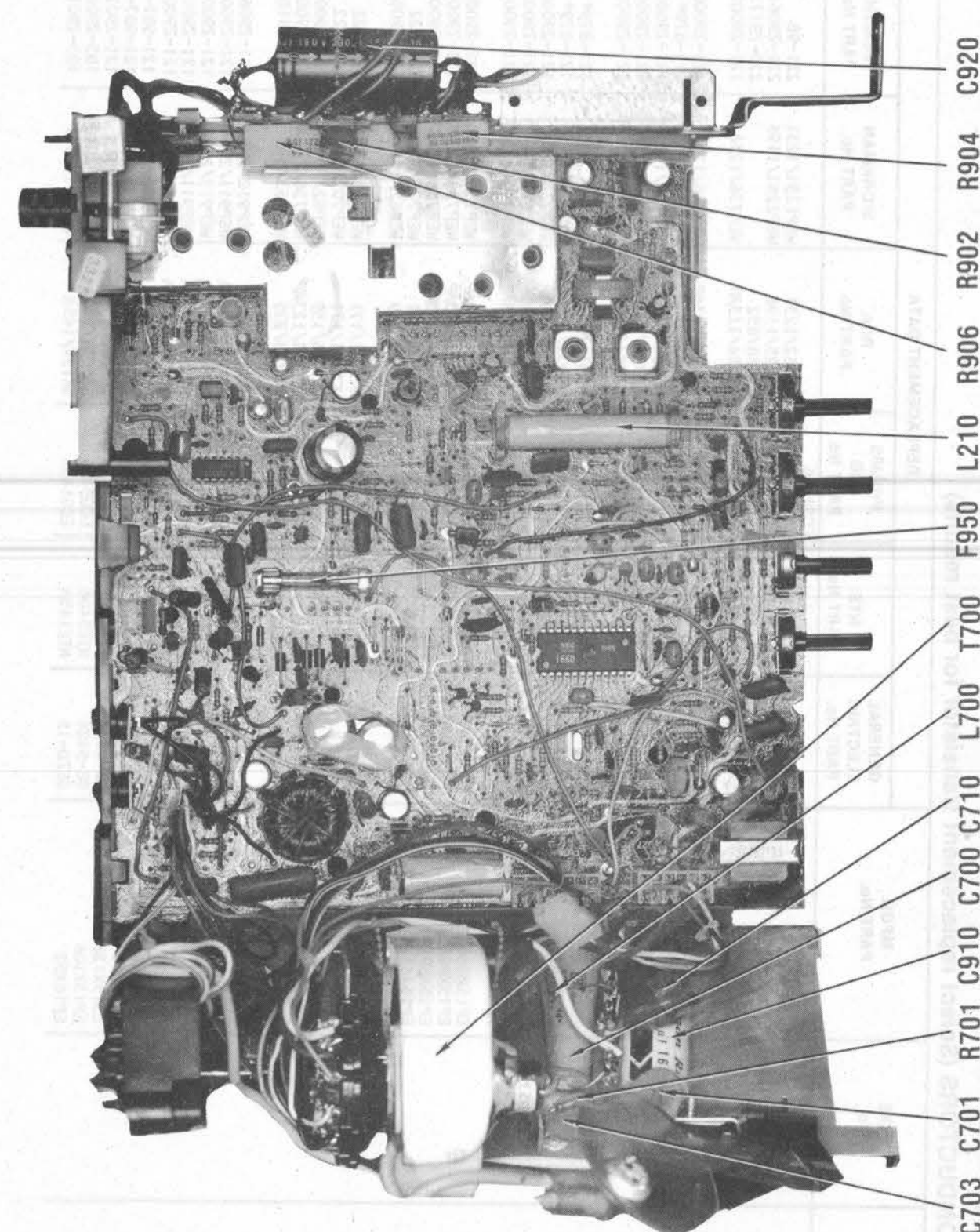
NO COLOR SYNC: Refer to "Troubleshooting" Chroma circuit.

NO GREEN: Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

NO BLUE: Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

NO RED: Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

INCORRECT HUE (TINT): Refer to "Troubleshooting" Chroma circuit.



GENERAL ELECTRIC
CHASSIS 10AB-E/F/H

FOLDER 1

CHASSIS-TOP VIEW

PARTS LIST AND DESCRIPTION

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement transistor for best results)

REPLACEMENT DATA						ITEM No.	TYPE No.	MFR. PART No.	GENERAL ELECTRIC PART No.	NTE PART No.	PHILIPS ECG PART No.	RCA PART No.	WORKMAN PART No.	ZENITH PART No.
1C120			EP84X34		GE-1231				GE-1231	NTE1231	ECG1606	SK3832/1231	WEP1231/1231	221-98
1C180			EP84X81		GE-1196				GE-1196	NTE1196	ECG1196	SK3725/1196	WEP2261/1196	221-29064
1C300			EP84X35							NTE852	ECG852	SK9248/852		221-29172
1C530			EP84X82							NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q200			EP15X87		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q205			EP15X87		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q210			EP15X48		GE-65				GE-65	NTE290A	ECG290A	SK3932/91	WEP564	121-879*
Q215			EP15X86		GE-123AP				GE-123AP	NTE290A	ECG290A	SK3932/91	WEP564	121-879*
Q220			EP15X86		GE-123AP				GE-123AP	NTE159	ECG159	SK3466/159	WEP736/123A	121-29000A
Q225			EP15X87		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q230			ES15X90		GE-65				GE-65	NTE290A	ECG290A	SK3932/91	WEP564	121-879*
Q235			EP15X48		GE-65				GE-65	NTE290A	ECG290A	SK3932/91	WEP564	121-879*
Q240			EP15X86		GE-82				GE-82	NTE159	ECG159	SK3466/159	WEP736/123A	121-29000A
Q245			EP15X86		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q282			EP15X86(1)		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q284			EP15X86(1)		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q295			EP15X89(1)		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q400			EP15X61		GE-27				GE-27	NTE171	ECG171	SK3201/171	WEP702/171	121-822
Q404			EP15X57		GE-82				GE-82	NTE159	ECG159	SK3466/159	WEP62/159	121-29003
Q410			EP15X61		GE-27				GE-27	NTE171	ECG171	SK3201/171	WEP702/171	121-822
Q420			EP15X61		GE-27				GE-27	NTE171	ECG171	SK3201/171	WEP702/171	121-822
Q500			EP15X48(2)		GE-82				GE-82	NTE159	ECG159	SK3466/159	WEP62/159	121-29003
Q510			EP15X86		GE-123AP				GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
Q551			EP15X105		GE-375				GE-375	NTE375	ECG375	SK9118/375	WEP63/375	121-29106
Q620			EP15X6		GE-47				GE-47	NTE293	ECG293	SK3849/293	WEP912/293	121-29066
Q630			EP15X225		GE-269				GE-269	NTE290A	ECG290A	SK3114A/290A	WEP911/290A	121-29003 *
Q635			EP15X57		GE-269				GE-269	NTE290A	ECG290A	SK3114A/290A	WEP911/290A	121-29003 *
Q640			EP15X225		GE-269				GE-269	NTE290A	ECG290A	SK3114A/290A	WEP911/290A	121-29003 *
Q645			EP15X57		GE-269				GE-269	NTE290A	ECG290A	SK3114A/290A	WEP911/290A	121-29003 *
Q640			EP15X68		GE-66A				GE-66A	NTE152	ECG152	SK3893/152	WEP745/152	121-987-03
Q645			EP15X68		GE-66A				GE-66A	NTE152	ECG152	SK3893/152	WEP745/152	121-987-03
Q700			ES15X126		GE-163A				GE-163A	NTE163A	ECG163A	SK3710/163	WEP740/163	121-29022
Q980			EP15X106		GE-5404				GE-5404	NTE5404	ECG5404	SK3627/5404	WEP6324/5404	185-29007
Y76			EP16X52		GEZD-15				GEZD-15	NTE145A	ECG145A	SK15V/145A	WEP1114/145	103-29013

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet-Front, Blige; Models 10AB3402VE01, 10AB3402VE02, 10AB5402VF01 and 10AB5402VH01	EP99X412	Overlay-UHF/VHF; Models 10AB3406WE01, 10AB3406WE02, 10AB3406WE03, 10AB3406WF02, 10AB5403EF01, 10AB5403EH01, 10AB5406WF01 and 10AB5406WH01	EP54X239
Cabinet Front, Cherry; Models 10AB3406WE01, 10AB3406WE02, 10AB3406WE03, 10AB3406WF02, 10AB5406WF01, and 10AB5406WH01	EP99X413	Overlay-UHF/VHF; Models 10AB3409WE01 and 10AB3409WE02	EP54X240
Cabinet Front, Cherry; Models 10AB3409WE01 and 10AB3409WE02	EP99X414	Overlay-UHF/VHF; Model 10AB4408WE01	EP54X228
Cabinet Front, Cherry; Model 10AB4408WE01	EP99X372	Knob-UHF Selector	EP43X372
Cabinet Front, Black; Models 10AB5403EF01 and 10AB5403EH01	EP99X487	Knob-UHF Fine Tuning	EP43X373
Back Cover; All Models Except Models 10AB3409WE01 and 10AB3409WE02	EP98X442	Knob-UHF Indicator; Models 10AB3402VE01, 10AB3402VE02, 10AB3402VE03, 10AB3406WE01, 10AB3409WE01, 10AB3409WE02	EP43X374
Back Cover; Models 10AB3409WE01 and 10AB3409WE02	EP98X443	Knob-UHF Indicator; Models 10AB3406WE02, 10AB3406WE03, 10AB3406WF02, 10AB3409WE02, 10AB4408WE01, 10AB5402VF01, 10AB5402VH01, 10AB5403EF01, 10AB5403EH01, 10AB5406WF01 and 10AB5406WH01	EP43X444
Overlay-UHF/VHF; Models 10AB3402VE01, 10AB3402VE02, 10AB3402VE03, 10AB5402VF01 and 10AB5402VH01	EP54X238	Knob-VHF Selector	EP43X370
		Knob-VHF Fine Tuning	EP43X371
		Knob-On/Off/Volume	EP43X338
		Cover-Service Information Holder	EP4X175

WIRING DATA

High Voltage Lead	Use BELDEN No. 9867 (30 KV)
Shielded Hook-up Wire	Use BELDEN No. 8401 or 8421 (Single-Conductor) 8208 (Two-Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8529 (Solid) Available in 13 Colors 8522 (Stranded) Available in 13 Colors
300-Ohm Tuner Input Lead	Use BELDEN No. 8225
300-Ohm Antenna Lead-In	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) 4-Conductor 8485 (Round) 5-Conductor 8488 (Round) 8-Conductor

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA		NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	
# T170			EP64X59		

For SAFETY use only equivalent replacement part.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM 32 Ohms	EP95X13	30A05Z32	

FUSE DEVICES

ITEM NO.	DESCRIPTION	MFGR. PART NO.		NOTES
		DEVICE	HOLDER	
# F900	4A @ 250V Fast Acting	EP10X19	EP2X44(1)	
# F950	750mA @ 250V Fast Acting	EP10X17	EP2X44(1)	

For SAFETY use only equivalent replacement part.
(1) Two clips used for each fuse.

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
FB701	Ferrite Bead	EP12X2	
FB702	Ferrite Bead	EP12X2	
L902	Degaussing Coil	EP36X197	
P900	Cord	EP66X20	AC Power, Polarized
S65	Switch		AFC
S175	Switch		Power On/Off (Part of Volume Control R175)
S300	Switch		Auto Color
V401	CRT	EP39X98	
X300	Crystal	10VAHP22	
X300	Crystal	EP41X10	Quartz, 3.58MHz Oscillator
X530	Antenna	EP41X53	Ceramic, 503.5kHz
	Antenna	EP83X13	UHF, RUSSELL Replacement Antenna, BOW-4H
	Antenna	EP83X17	VHF, RUSSELL Replacement Assembly, GEN-2H
	Antenna Terminal Board	EP37X61	
	PC Board	EP93X124	CRT Drive Circuit Board
	Socket	EP34X33	CRT
	UHF Tuner	EP85X70	Models 10AB3402VE01, 10AB3406WE01 and 10AB3409WE01
	UHF Tuner	EP85X77	Models 10AB3402VE01, 10AB3402VE02, 10AB3402VE03, 10AB3406WE01, 10AB3406WE02, 10AB3406WE03, 10AB3406WF02, 10AB3409WE02, 10AB4408WE01, 10AB5402VF01, 10AB5402VH01, 10AB5403EF01, 10AB5403EH01, 10AB5406WF01 and 10AB5406WH01
	VHF Tuner	EP86X75	Models 10AB3402VE03 and 10AB3406WE03
	VHF Tuner	EP86X82	Models 10AB3402VE01, 10AB3402VE02, 10AB3406WE01, 10AB3406WE02, 10AB3406WF02, 10AB3409WE01, 10AB3409WE02 and 10AB3408WE01
	VHF Tuner	EP86X89	Models 10AB5402VF01, 10AB5402VH01, 10AB5403EF01, 10AB5403EH01, 10AB5406WF01 and 10AB5406WH01

For SAFETY use only equivalent replacement part.

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. PART No.	REPLACEMENT DATA					ZENITH PART No.
			GENERAL ELECTRIC PART No.	NTE PART No.	PHILIPS ECG PART No.	RCA PART No.	WORKMAN PART No.	
Y160		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y220		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y230		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y235		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
		EUI6X11	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y282		ES16X27(1)	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y284		ES16X27(1)	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y295		ES16X27(1)	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y315		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y400		EUI6X11(2)	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y410		EUI6X11(2)	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y420		EUI6X11(2)	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y501 thru Y503		ES16X27(2)	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y507		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y610		EUI6X11	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y615		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y620		ES16X27	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
Y635		EUI6X11	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y700		EPI6X11	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
Y704		EPI6X24		NTE558	ECG558	SK3998/558		
Y715		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y901 thru Y904		EP57X4	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y942		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y946		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y954		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y972		EP57X4	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y973		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y974		EP57X5	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
Y975		EPI6X36	GEZD-12	NTE142A	ECG142A	SK12V/142A	WEP112/142	103-Z9003

For SAFETY use only equivalent replacement part.
* Lead configuration may vary from original.
(1) Used in some versions.
(2) Only used in AB-H Chassis.

GENERAL ELECTRIC
CHASSIS 10AB-E/F/-H

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

ELECTROLYTIC CAPACITORS Items Not Listed Are Normally Available At Local Distributors.

ITEM No.	RATING	MFGR. PART No.	ITEM No.	RATING	MFGR. PART No.
# C60	10 10% 25V	EP31X5	C555	100 10% 50V	EP31X45
# C62	47 10% 16V	EP31X88	0628	22 10% 25V	EP31X44
# C68	4.7 10% 25V	EP31X64	0640	100 10% 10V	EP31X55
C122	1 10% 50V	EP31X78	# C910	220 10% 180V	EP31X67
C140	1 10% 16V	EP31X49	# C920	330 10% 180V	EP31X66
C150	.22 10% 25V	EP31X71	# C930	47 10% 160V	EP31X69
C176	22 10% 25V	EP31X44	# C947	470 10% 50V	EP31X159
C182	100 10% 16V	EP31X55	C955	47 10% 25V	EP31X45
C220	4.7 10% 35V	EW31X144	C976	100 10% 35V	EP31X55
C330	4.7 10% 35V	EP31X144	C977	100 10% 35V	EP31X169
C520	1 10% 16V	EP31X49			

For SAFETY use only equivalent replacement part.

CAPACITORS Items Not Listed Are Normally Available At Local Distributors.

ITEM No.	RATING	MFGR. PART No.	ITEM No.	RATING	MFGR. PART No.
# C50	470 20% 125V	EP18X127	C116	27 NPO 50V 5%	EP18X187
# C51	470 20% 125V	EP18X127	C126	68 N750 50V 5%	EP18X111
# C52	470 20% 125V	EP18X127	C128	68 N750 50V 5%	EP18X111
# C53	470 20% 125V	EP18X127	C179	470 NPO 50V 10%	EP18X204
# C54	470 20% 125V	EP18X127	C181	22 NPO 50V 5%	EP18X103
# C55	470 20% 125V	EP18X127	C183	91 NPO 50V 5%	EP18X109
# C61	.1 20% 50V	EP25X77	C186	150 NPO 50V 5%	EP18X113
C101	13 NPO 50V 5%	EP18X101	C188	120 NPO 50V 5%	EP18X159
C102	56 NPO 50V 5%	EP18X108	C189	8.2pF 50V NPO 10%	EP18X183
C103	4.3pF NPO 50V 5%	EP18X225	C214	680 N750 50V 5%	EP18X140
C104	56 NPO 50V 5%	EP18X190	C334	39 NPO 50V 5%	EU18X9
C105	13 NPO 50V 5%	EP18X101	C336	56 NPO 50V 5%	EP18X190
C106	68 N750 50V 5%	EP18X111	C380	470 NPO 50V 10%	EP18X204
C107	68 N750 50V 5%	EP18X111	C382	470 NPO 50V 10%	EP18X204
C108	10pF NPO 50V 5%	EP18X184	C384	470 NPO 50V 10%	EP18X204
C110	8.2pF NPO 50V 10%	EP18X183	C404	10pF NPO 50V 5%	EP18X184
C111	16 NPO 50V 5%	EP18X227	C504	470 NPO 50V 10%	EP18X204
C112	5.1pF NPO 50V 5%	EP18X226	# C700	4700 5% 1.2KV	EP25X79
C114	56 NPO 50V 5%	EP18X190	# C710	3uF 10% 250V	EP25X33
C115	13 NPO 50V 5%	EP18X101			

For SAFETY use only equivalent replacement part.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM NO.	FUNCTION	RESISTANCE	MFGR. PART NO.	NOTES
# R150	RF/AGC	2500	EP49X485	
# R175	Volume/Switch	15K	EP49X364	
R215	Contrast	2500	EP49X292	
R227	Brightness	2500	EP49X292	
R324	APC	5000	EP49X299	
R364	Tint	1000	EP49X298	
R368	Color	25K	EP49X294	
R610	Vertical Height (Size)	500K	EP49X291	
R616	Vertical Centering	10K	EP49X289	
# R710	Focus	20M	EP49X339	
R715	Horiz Centering	100	EP49X321	
R750	Red Screen	1M	EP49X131	
R752	Green Screen	1M	EP49X131	
R754	Blue Screen	1M	EP49X131	

For SAFETY use only equivalent replacement part.

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		
		MFGR. PART No.	WORKMAN PART No.	REMARKS
# R50	1.8M 40% 1/2W Carbon	EP14X241		
# R51	1.8M 40% 1/2W Carbon	EP14X241		
# R52	1.8M 40% 1/2W Carbon	EP14X241		
# R53	1.8M 40% 1/2W Carbon	EP14X241		
# R54	1.8M 40% 1/2W Carbon	EP14X241		
# R55	1.8M 40% 1/2W Carbon	EP14X241		
# R170	22 5% 1/2W Carbon Film	EP14X268	HW022	22-2056
# R551	560 5% 2W Metal Oxide	EP14X102	HW156	22-4090
# R700	68 5% 1/2W Carbon Film		HW068	22-2068
# R701	180K 5% 1/2W Carbon Film	EP14X196	HW418	22-2150
# R702	10K 5% 1/2W Carbon Film	EP14X103	HW310	22-2120
# R705	240M 20% Carbon	EP62X149		
# R716	6.8 5% 2W Metal Oxide	EP14X150		
# R902	PTC 18.6 Cold	EP14X113		FR605
# R904	3 5% 5W WW	EP14X155	2W6D8	
# R906	50 5% 15W WW	EP14X174		
# R970	1.3 5% 2W Metal Oxide	EP14X178		
# R980	750 5% 2W Metal Oxide	EP14X89	2W175	

For SAFETY use only equivalent replacement part.

COILS (RF-IF)

ITEM No.	FUNCTION	MFGR. PART No.	ITEM No.	FUNCTION	MFGR. PART No.
L101	Video IF	EP36X200	L338	Peaking (56uH)	EP36X33
L102	Video IF	EP36X200	L362	RF Choke (27uH)	EP36X144
L103	39.75MHz Trap	EP36X201	L363	Peaking (5.6uH)	EP36X140
L104	47.25MHz Trap	EP36X201	L364	Peaking (10uH)	EP36X142
L105	41.25MHz Trap	EP36X201	L366	RF Choke (5.6uH)	EP36X140
L106	43.8MHz Peaking	EP36X201	L401	Peaking (390uH)	EP36X174
L126	47.25MHz REF	EP36X200	L411	Peaking (390uH)	EP36X174
L128	AFC	EP36X200	L421	Peaking (390uH)	EP36X174
L130	Peaking (1.8uH)	ES36X12	L700	RF Choke (5.6uH)	EU36X536
L145	4.5MHz Trap	EP36X312	# L900	Line Filter	EP36X454
L188	Quadrature	EP36X313	# L970	RF Choke (290uH)	EP36X341
L210	Delay Line	EP36X363	# T50	Balun	EP51X5
L214	RF Choke (3uH)	EP36X161	T186	Sound IF	EP36X342
L314	RF Choke (3000uH)	EP36X32			

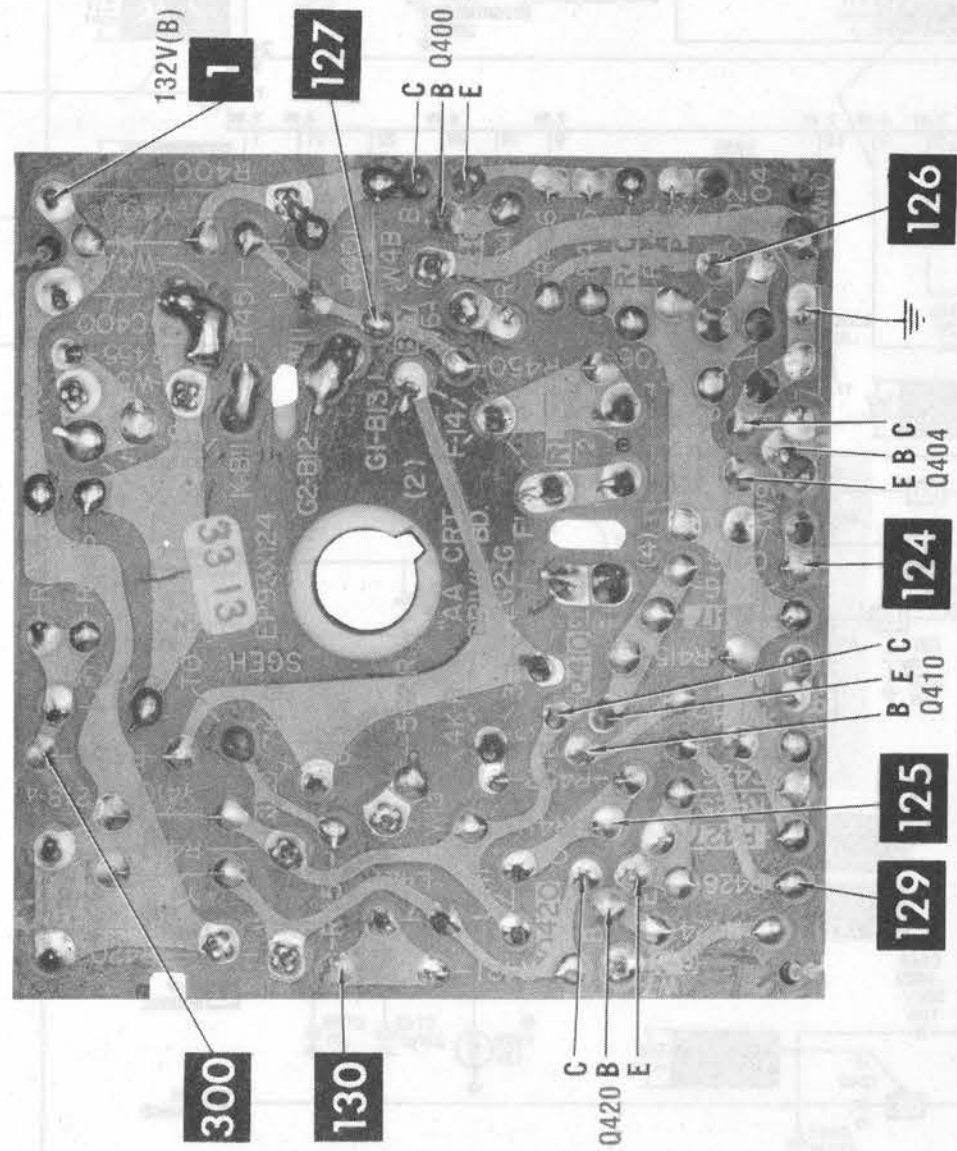
For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS (Sweep Circuits)

ITEM No.	FUNCTION	MFGR. PART No.	OTHER IDENTIFICATION	NOTES
L808	Convergence Yoke	EP42X5	73D220567-4(1)	
L809	Red			
T551	Blue			
# T700	Horiz Drive	EP64X47	73C182195-4(1)	
# T700A	Horiz Output	EP77X44		
# T820	Pulse Winding	EP36X198(2)		
	Yoke Horiz .72mH	EP76X22		
# T971	70° Vert 1.22mH			
	Saturable Reactor	EP36X343		

For SAFETY use only equivalent replacement part.

(1) Number on unit.
(2) Part of Horiz Output T700.

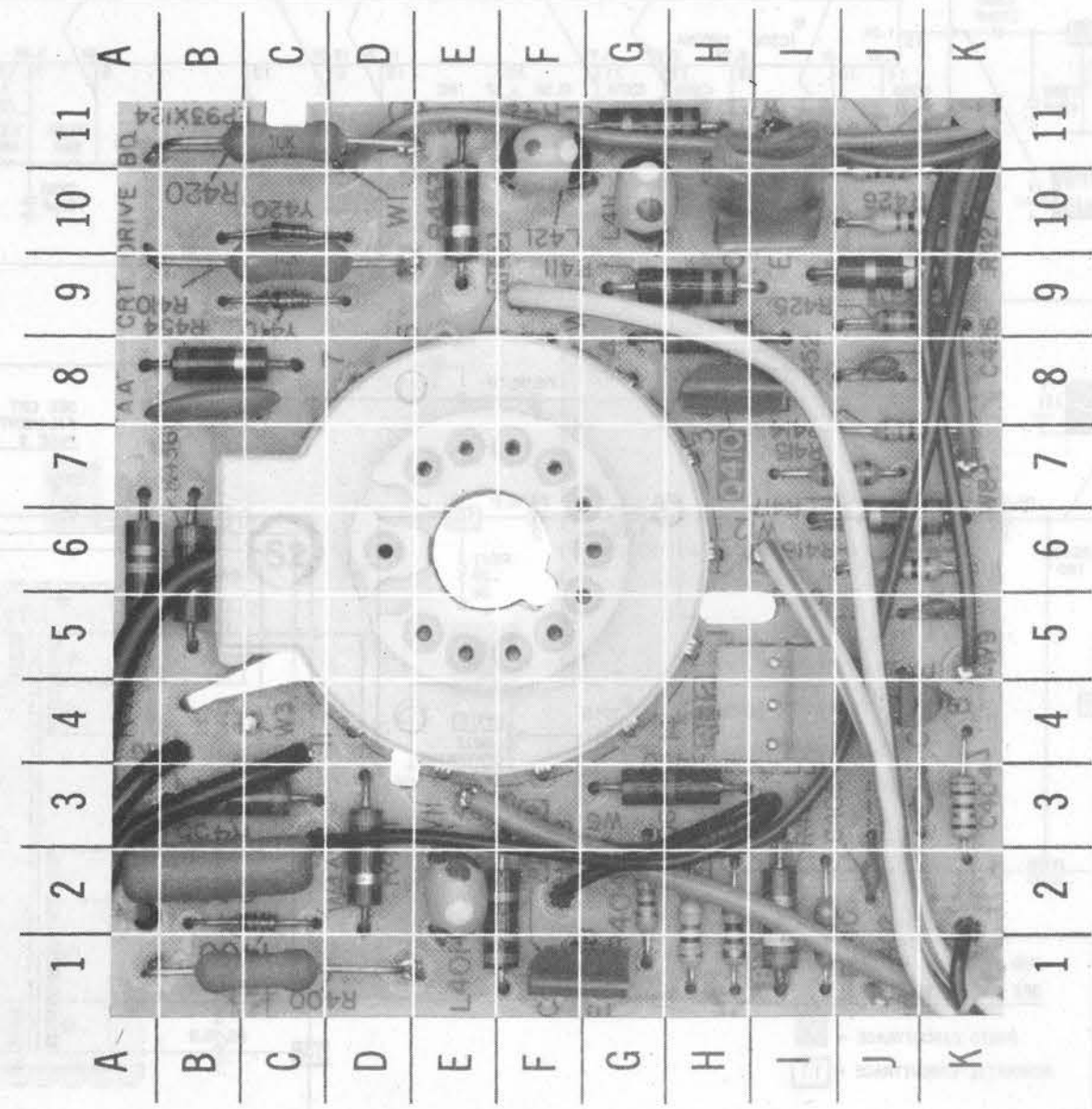


CRT SOCKET BOARD

A Howard W. Sams CIRCUITRACE® Photo

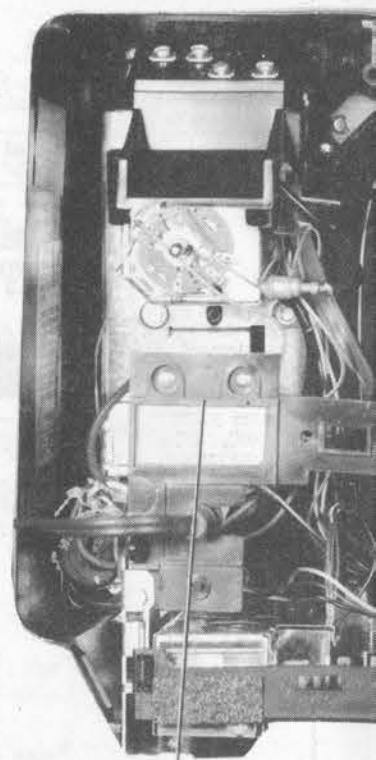
CRT
SOCKET BOARD-
GridTrace
LOCATION GUIDE

C400	B-2
C402	K-3
C404	K-3
C406	J-2
C416	K-5
C426	J-8
C436	B-8
L401	E-2
L411	S-10
L421	F-11
Q400	G-1
Q404	J-4
Q410	H-8
Q420	I-10
R400	C-1
R401	F-2
R404	G-2
R405	H-2
R406	H-2
R407	I-2
R410	C-9
R411	H-9
R414	J-7
R415	J-7
R416	J-6
R417	J-6
R420	C-11
R421	G-11
R424	J-11
R425	J-9
R426	J-10
R427	J-9
R435	A-6
R436	B-6
R440	I-2
R450	G-3
R451	D-2
R452	H-9
R453	E-10
R454	B-8
R455	B-3
RL12	I-4
TP40	J-1
Y400	C-2
Y410	C-9
R420	C-10



A Howard W. Sams GRIDTRACE™ Photo

CRT SOCKET BOARD



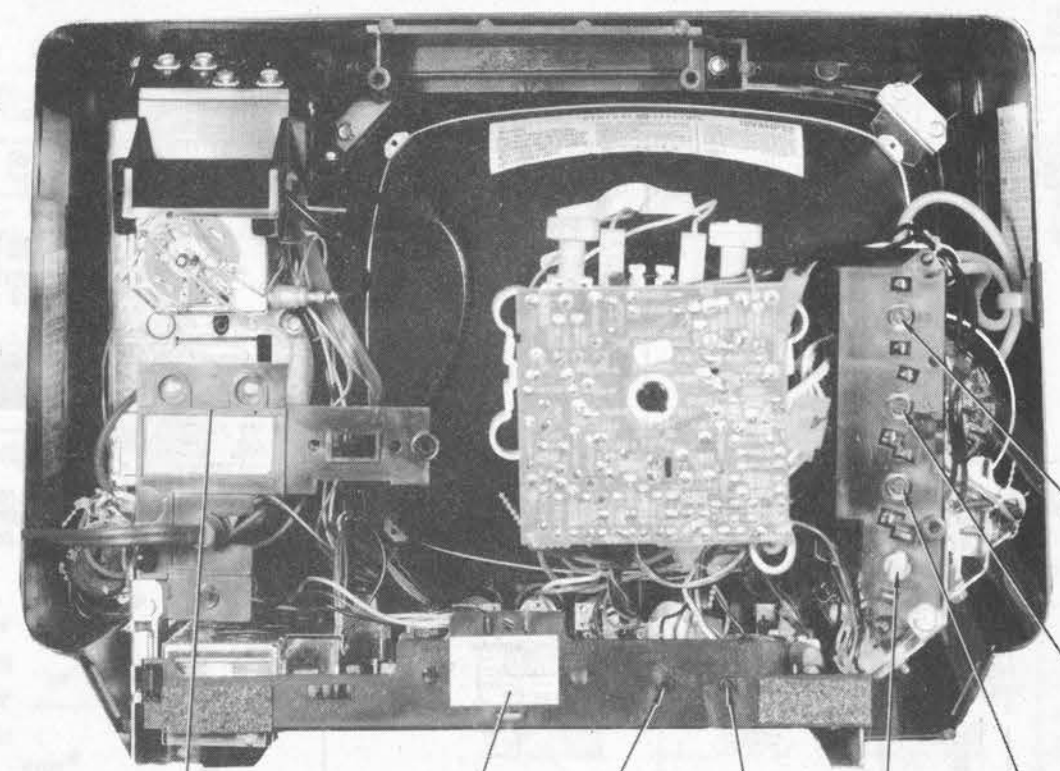
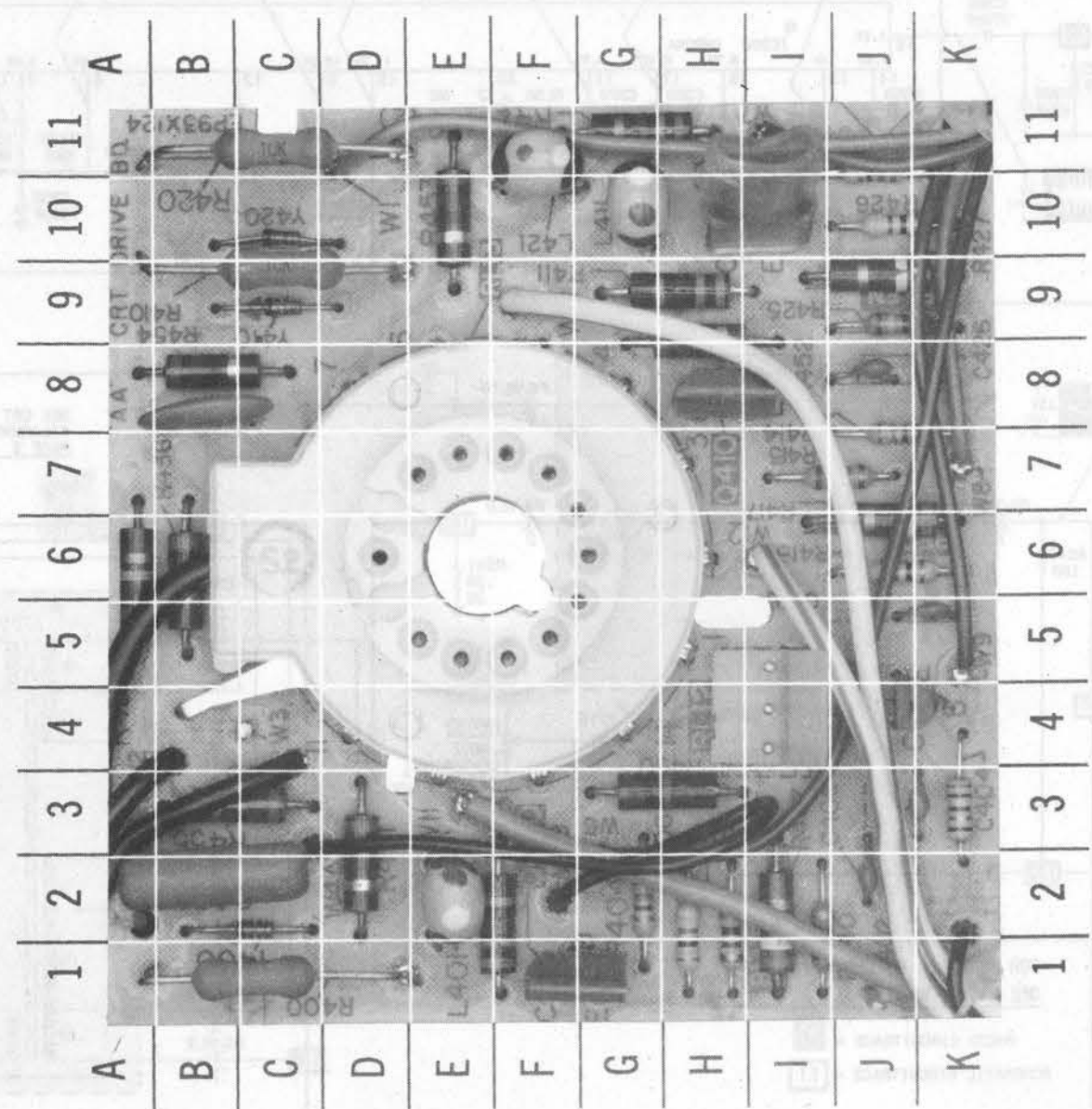
AC FUSE

DISASSEMBLY INSTRUCTION

CHASSIS REMOVAL

Remove knobs from cabinet front and back. Remove four screws holding cabinet back and front. Disconnect HV anode, CRT socket, yoke connectors, degaussing coil, speaker connectors and ground. Remove four screws holding tuner assembly from front and remove assembly. Remove four screws holding main chassis from back.

CRT SOCKET BOARD-GridTrace	
LOCATION GUIDE	
C400	B-2
C402	K-3
C404	K-3
C406	J-2
C416	K-5
C426	J-8
C436	B-8
L401	E-2
L411	S-10
L421	F-11
Q400	G-1
Q404	J-4
Q410	H-8
Q420	I-10
R400	C-1
R401	F-2
R404	G-2
R405	H-2
R406	H-2
R407	I-2
R410	C-9
R411	H-9
R414	J-7
R415	J-7
R416	J-6
R417	J-6
R420	C-11
R421	G-11
R424	J-11
R425	J-9
R426	J-10
R427	J-9
R435	A-6
R436	B-6
R440	I-2
R450	G-3
R451	D-2
R452	H-9
R453	E-10
R454	B-8
RL12	B-3
TP40	I-4
Y400	J-1
Y410	C-2
R420	C-10



CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove knobs from cabinet front. Remove seven screws holding cabinet back and remove back. Disconnect HV anode, CRT socket, deflection yoke connectors, degaussing coil connectors, speaker connectors and ground leads. Remove four screws holding tuner assembly to cabinet front and remove assembly from cabinet. Remove four screws holding main board assembly

to cabinet bottom and slide main board from cabinet.

CRT REMOVAL

Follow "Chassis Removal" procedure and lay set facedown on a soft protective surface. Loosen and remove CRT neck assemblies. Remove eight screws holding degaussing coil and CRT to cabinet front and lift CRT out of cabinet. Do Not lift CRT by the neck.