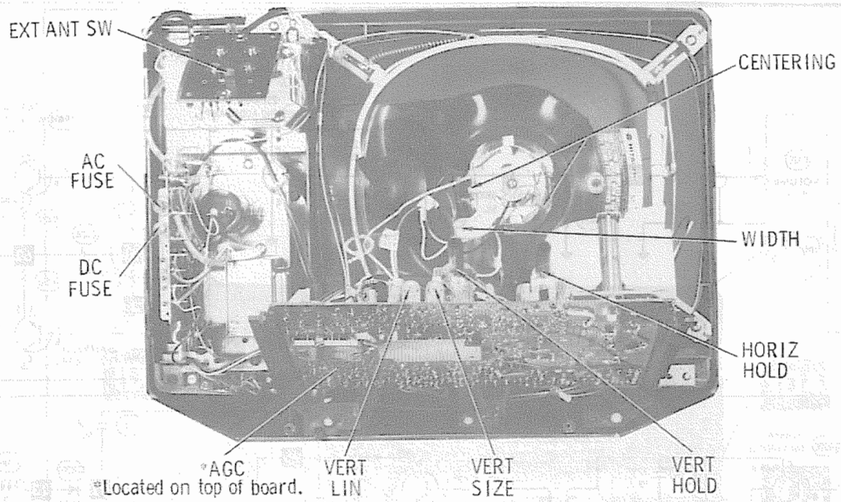

CABINET—REAR VIEW DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove six screws holding cabinet back and remove all knobs from the set. Remove cabinet back from the cabinet front.

Remove picture tube socket, high-voltage anode lead, deflection-yoke plug, picture tube ground wire, earphone jack, power-supply plug, and speaker plug. Loosen all ties securing wires.

Remove two screws holding On-Off switch and volume control. Remove four screws holding tuner assembly and power supply chassis.

Slide large printed circuit board rearward and remove all chassis from the cabinet front.

PICTURE TUBE REMOVAL

Follow Chassis Removal procedure and lay set face down on a soft protective surface.

Remove four screws holding picture tube mounting brackets and lift picture tube from the cabinet front. Do not lift tube by the neck.

SERVICING IN THE FIELD

CRT IMPLOSION PROTECTION AND CLEANING

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

FUSE DEVICES

A 1.6 amp fuse is used for low-voltage power-supply protection. (See Cabinet-Rear View).

A .75 amp fuse is used for AC line protection. (See photo Cabinet-Rear View).

VHF TUNER

The fine tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horizontal (hold) coil. (See Cabinet-Rear View photo).

WIDTH

The width may be varied by adjusting the width coil located on the yoke. (See photo Cabinet-Rear View).

FOCUS

No provision is made to vary the focus on this receiver.

AGC

The AGC may be varied by means of an AGC control. (See photo Cabinet-Rear View).

CENTERING

Centering is accomplished by proper adjustment of two magnetic rings located on the yoke rear cover.

PHOTOFACT® Folder with CIRCUITRACE
SET 1435 FOLDER 1

BRADFORD MODELS 1007B32/C32/D42 (WTG-51706/714/722)

For Supplier Address See PHOTOFACT Index

BRADFORD MODELS 1007B32/C32/D42 (WTG-51706/714/722)

Model 1007B32 (WTG-51706)

BRADFORD MODELS 1007B32/C32/D42 (WTG-51706/714/722)

SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set.

Check high-voltage regulation and adjust to correct value.

Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

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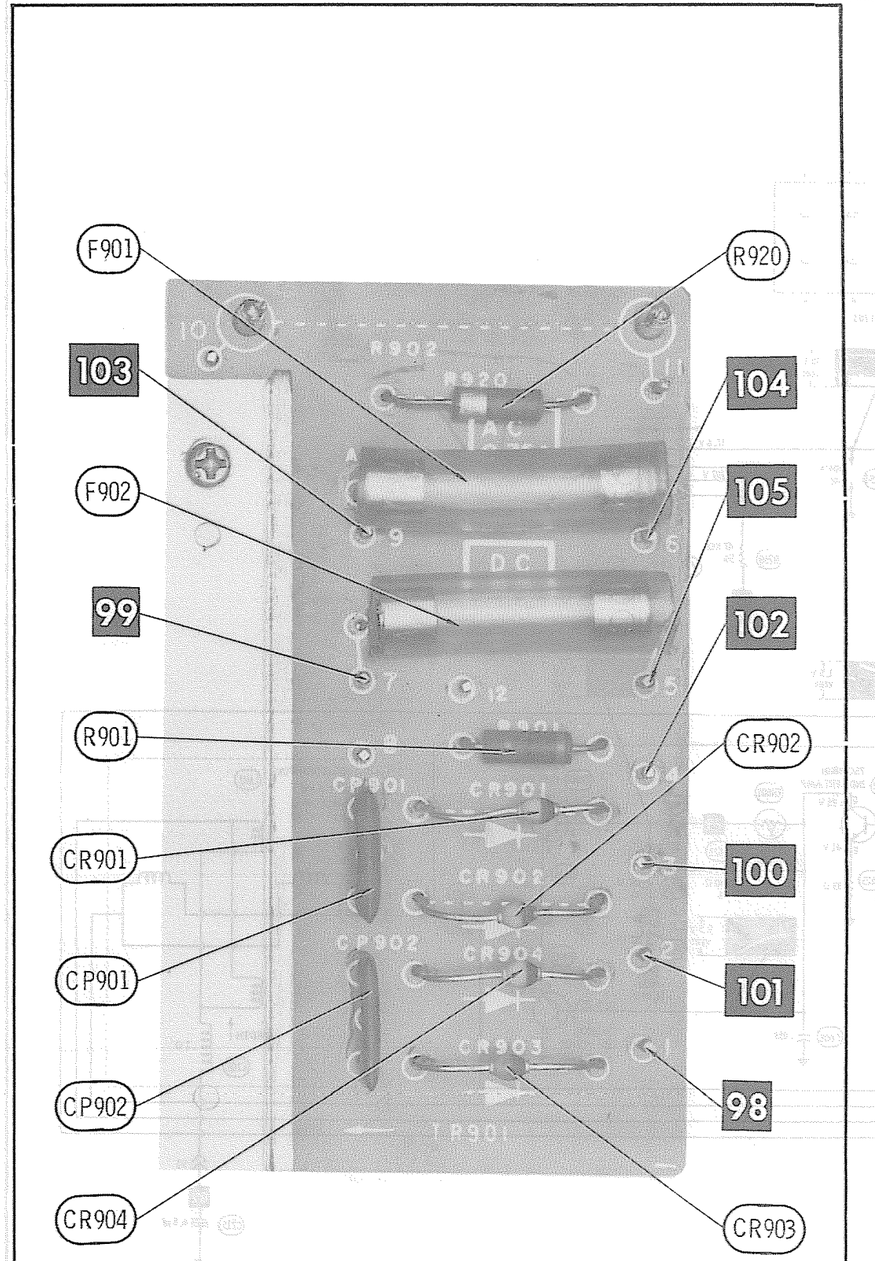
BRADFORD MODELS 1007B32/C32/D42 (WTG-51706/714/722)

SET 1435 FOLDER 1

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

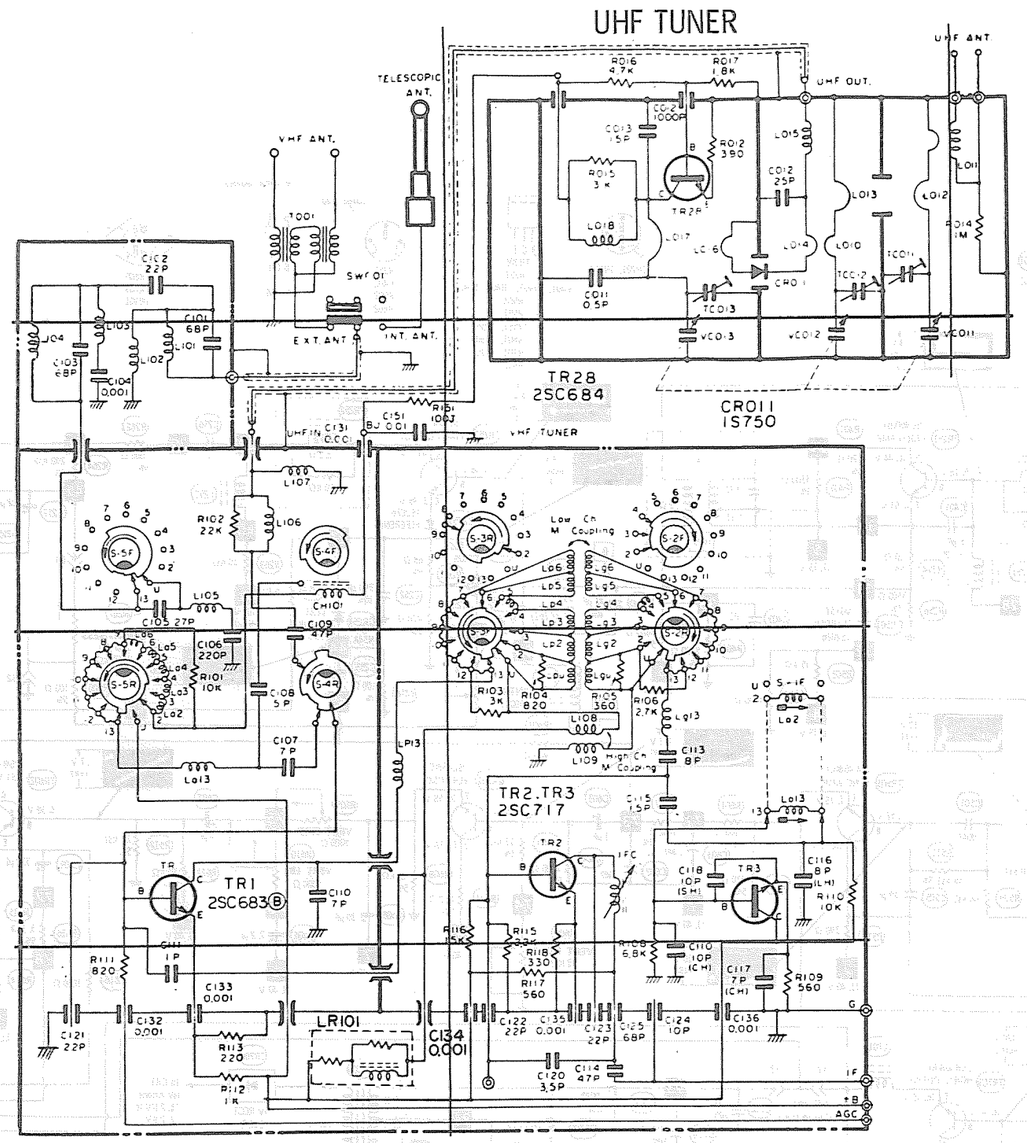
4PC1039
10 9 8 7 6 5 4 3 2 1 0
DATE 10-74 SET 1435 FOLDER 1

SET 1435 FOLDER 1



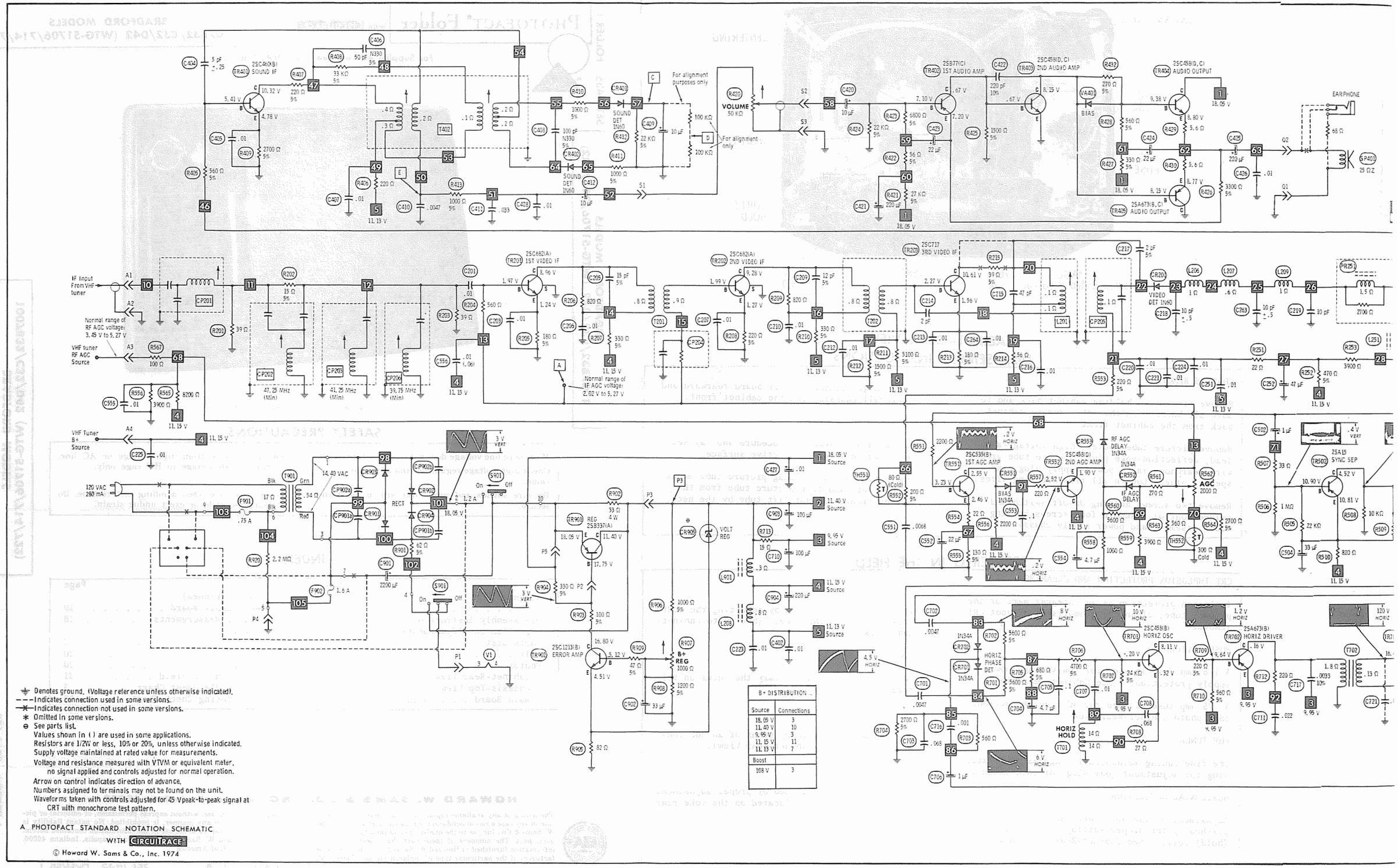
POWER SUPPLY BOARD

A Howard W. Sams CIRCUITRACE Photo



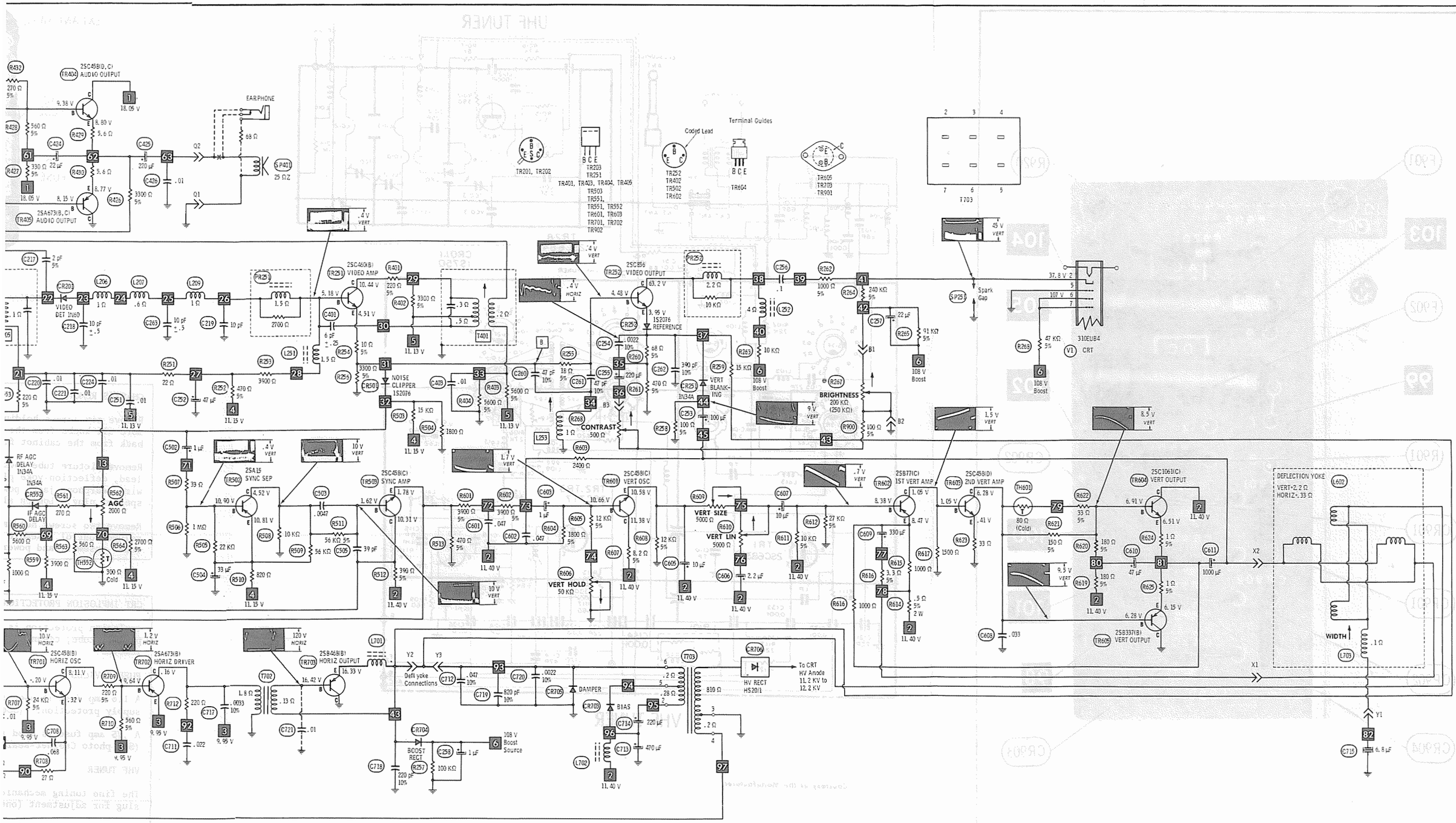
VHF TUNER

Courtesy of the Manufacturer



⏚ Denotes ground. (Voltage reference unless otherwise indicated).
– – – Indicates connection used in some versions.
—✕— Indicates connection not used in some versions.
✱ Omitted in some versions.
⊖ See parts list.
Values shown in ( ) are used in some applications.
Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.
Supply voltage maintained at rated value for measurements.
Voltage and resistance measured with VTVM or equivalent meter, no signal applied and controls adjusted for normal operation.
Arrow on control indicates direction of advance.
Numbers assigned to terminals may not be found on the unit.
Waveforms taken with controls adjusted for 45 Vpeak-to-peak signal at CRT with monochrome test pattern.

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE



BRADFORD MODELS
1007B32/C32/D42 (WTG-51706/714/722)

RESISTANCE MEASUREMENTS

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	
MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS														
V1	NC	220 KΩ	FIL	FIL	0 Ω	100 K	100 K							
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
TR201	180 Ω	1400 Ω	500 Ω		TR404	6000 Ω	1000 Ω	200 Ω		TR603	33 Ω	1500 Ω	400 Ω	
TR202	220 Ω	1400 Ω	500 Ω		TR405	6000 Ω	1500 Ω	0 Ω		TR604	100 Ω	400 Ω	200 Ω	
TR203	180 Ω	1000 Ω	250 Ω		TR502	800 Ω	20 KΩ	5000 Ω		TR605	100 Ω	400 Ω	0 Ω	
TR251	3000 Ω	3300 Ω	400 Ω		TR503	400 Ω	50 KΩ	470 Ω		TR701	41 Ω	12 KΩ	900 Ω	
TR252	INF	3000 Ω	50 K		TR551	120 Ω	3500 Ω	2000 Ω		TR702	200 Ω	700 Ω	1.8 Ω	
TR401	2700 Ω	3000 Ω	600 Ω		TR552	800 Ω	600 KΩ*	200 Ω		TR703	470 Ω	470 Ω	0 Ω	
TR402	2600 Ω	5000 Ω	1500 Ω		TR601	12 KΩ	1600 Ω	200 Ω		TR901	200 Ω	450 Ω	200 Ω	
TR403	0 Ω	1500 Ω	1500 Ω		TR602	450 Ω	5000 Ω	1500 Ω		TR902	82 Ω	700 Ω	550 Ω	

* READING DEPENDS UPON POLARITY OF METER CONNECTIONS.

TROUBLESHOOTING CHECK CHART

The following chart lists component failures most likely to produce the indicated symptom.

SWEEP

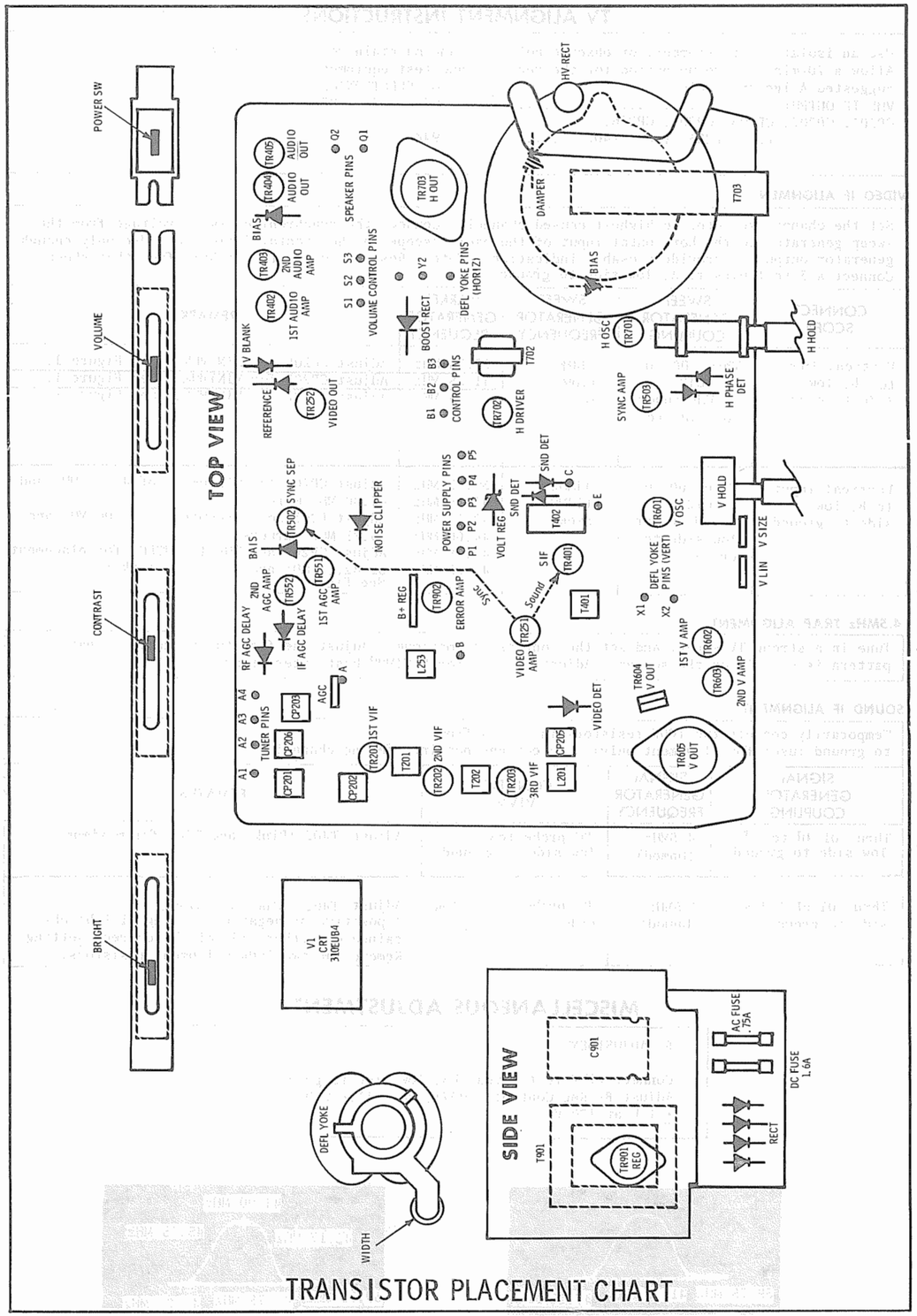
No raster, has sound: Horiz Osc/Driver/Output, Damper, HV Rect, CRT
No vert deflection: Vert Osc/Amp/Output
Poor vert lin or foldover: Vert Osc/Amp/Output
Poor horiz lin or foldover: Horiz Output, Damper
Narrow picture: LV Rect, Horiz Osc/Driver/Output, Damper
Vert off freq: Vert Osc/Amp/Output
Horiz off freq: Horiz Phase Det/Osc

SYNC

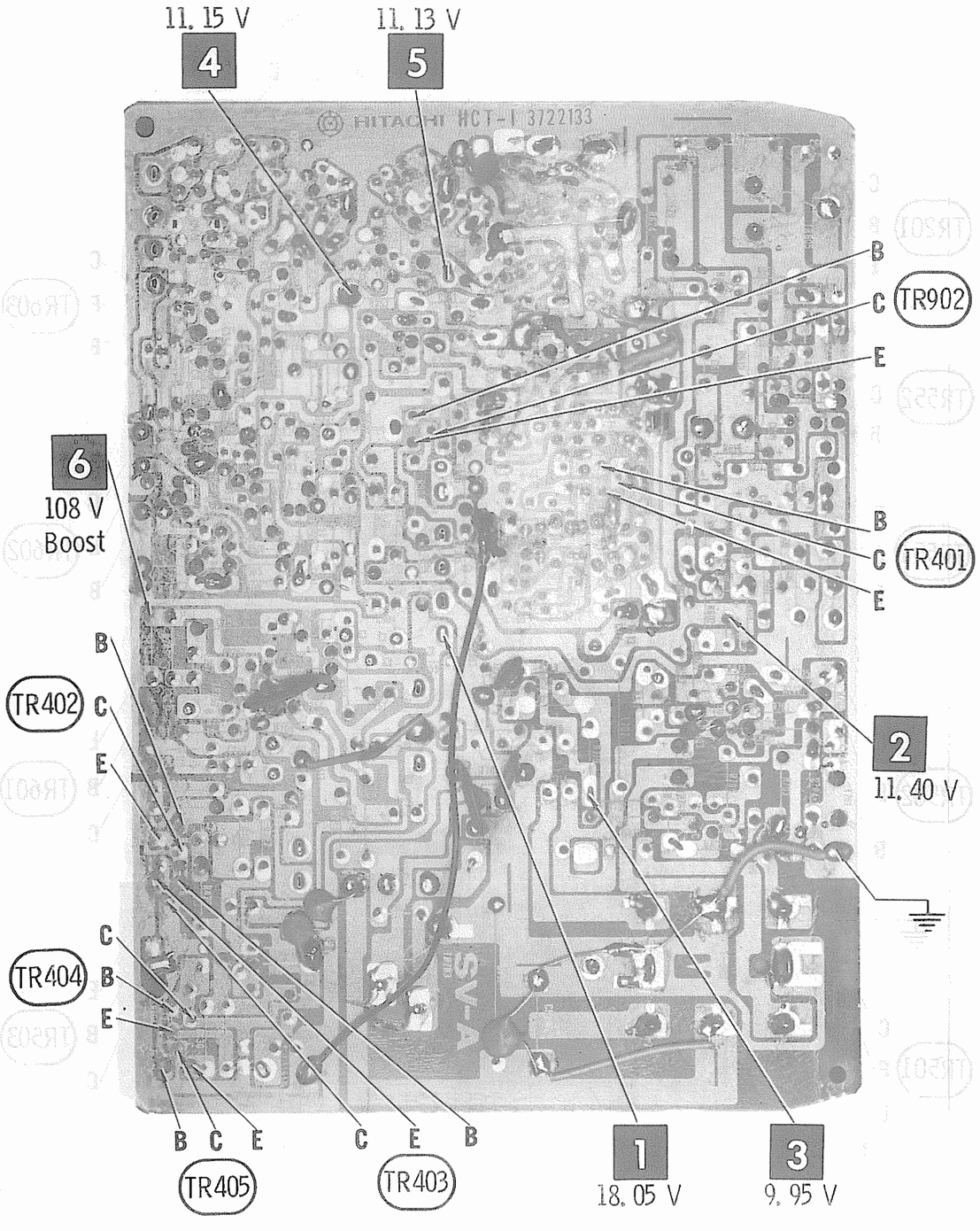
No vert sync: Vert Osc/Amp/Output
No horiz sync: Horiz Phase Det/Osc
No vert/horiz sync: Sync Sep/Amp

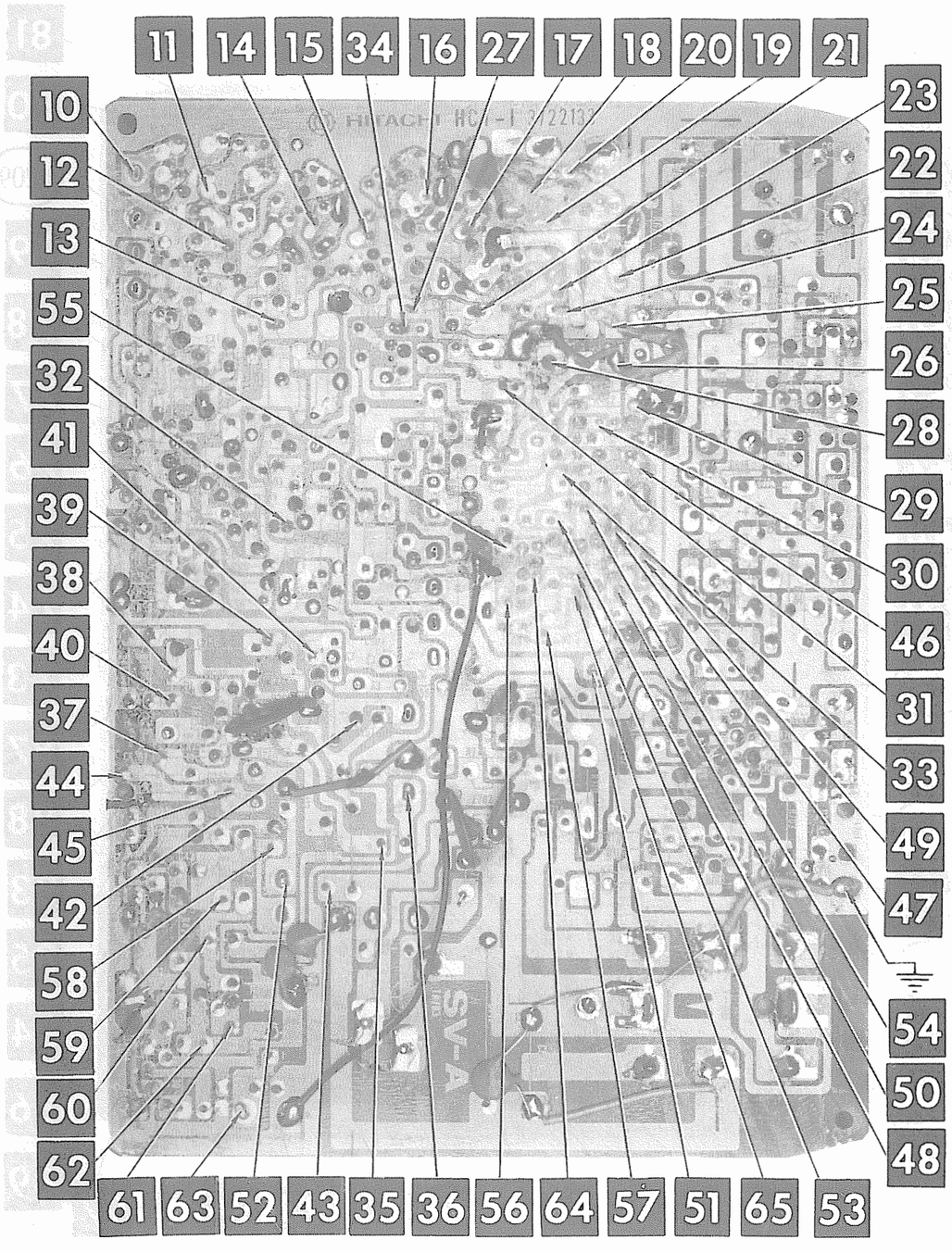
PICTURE or SOUND

No pic, no sound, no raster: Fuses, LV Rects
No pic, no sound, has raster: Video IFs, Tuner Mixer
No pic, no sound, has snow: Tuner RF/Mixer/Osc
No pic, has sound, no raster: Video Output, CRT
No pic, has sound, has raster: Video Amp/Output
Has pic, no sound: Sound IF/Det, Audio Amp/Output
Overloaded picture: AGC, Video Det



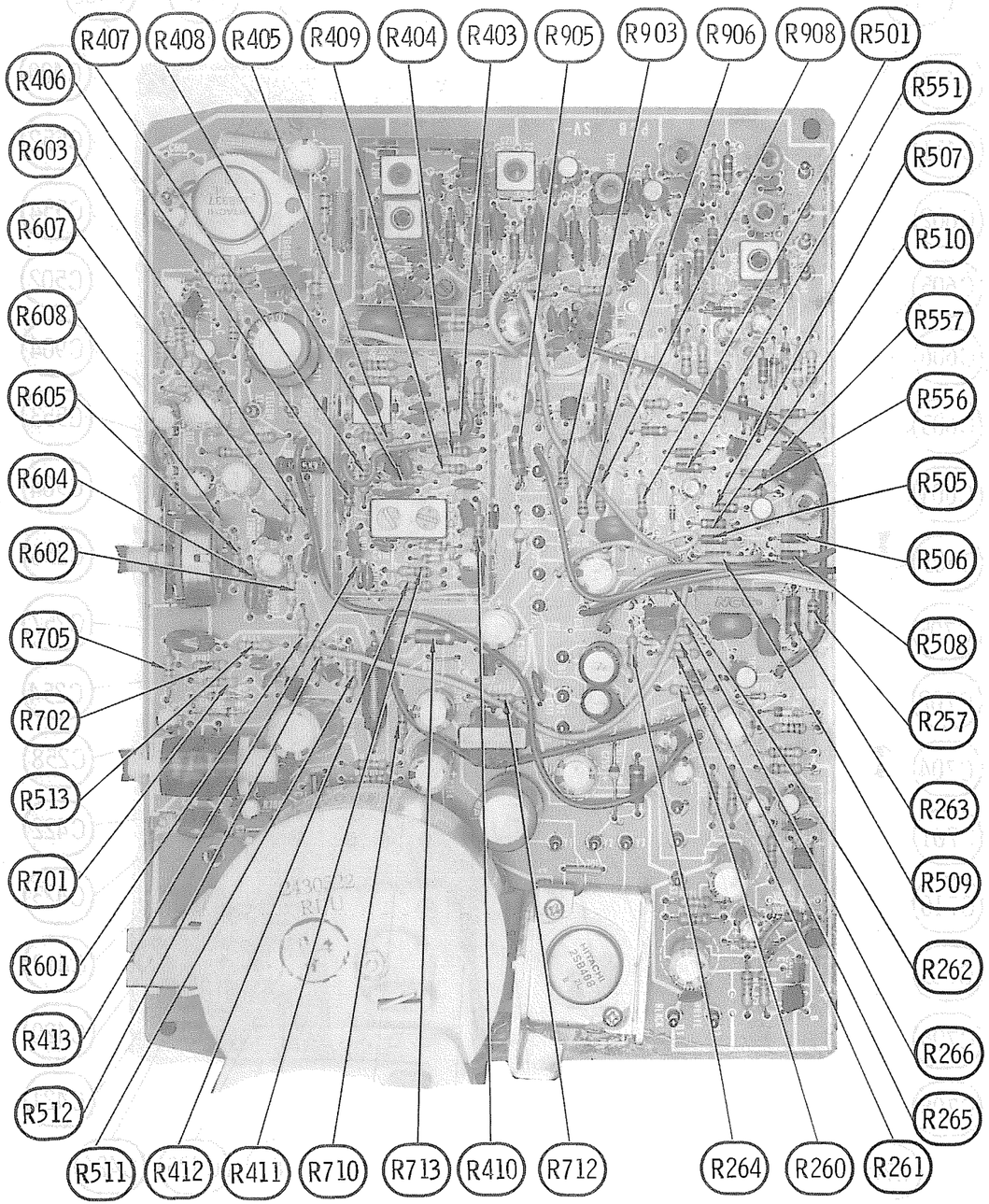
TRANSISTOR PLACEMENT CHART





MAIN BOARD

A Howard W. Sams CIRCUITRACE® Photo


R407
R408
R405
R409
R404
R403
R905
R903
R906
R908
R501
R406
R603
R607
R608
R605
R604
R602
R705
R702
R513
R701
R601
R413
R512
R551
R507
R510
R557
R556
R505
R506
R508
R257
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R712
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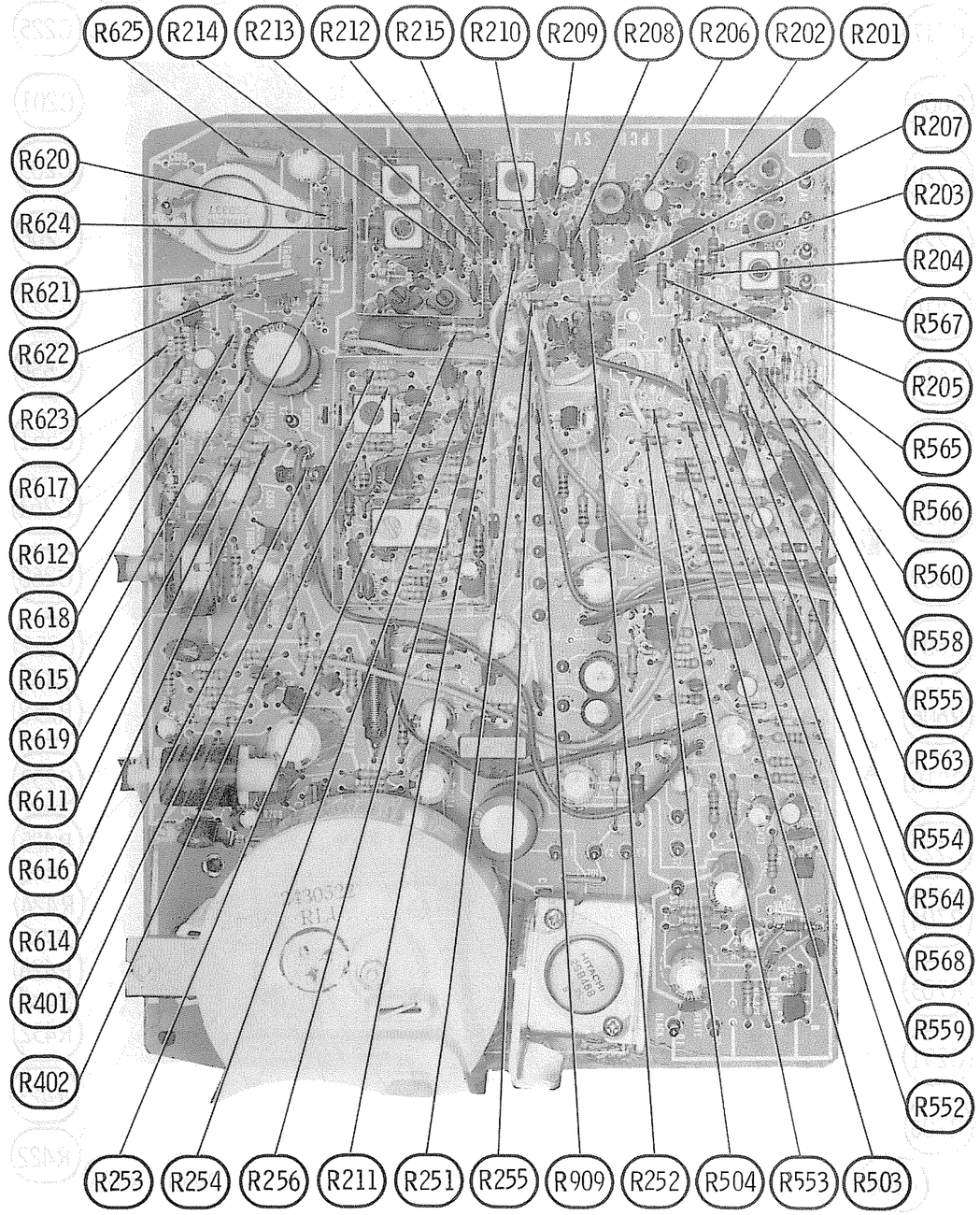
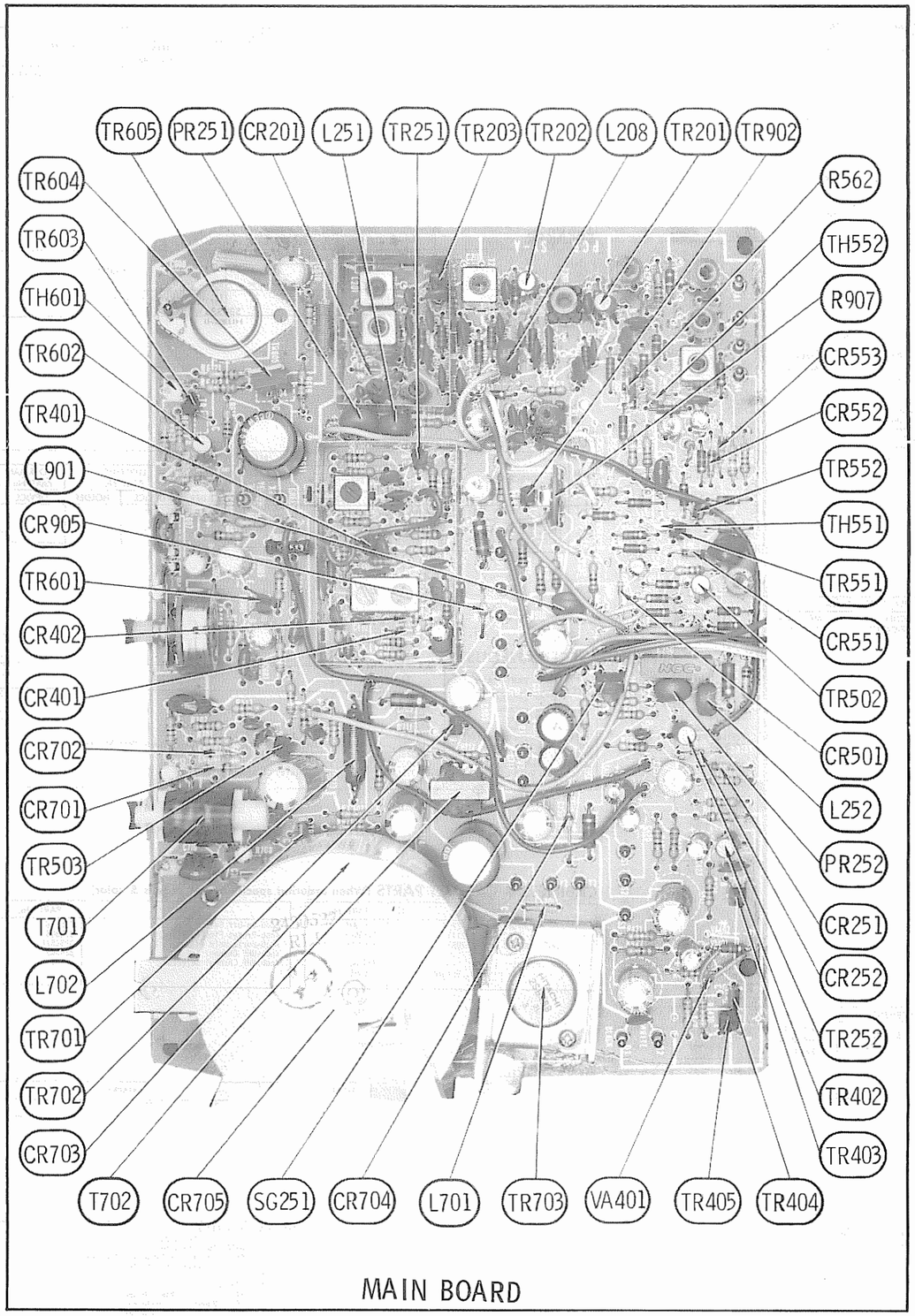
R260
R261


R625
R214
R213
R212
R215
R210
R209
R208
R206
R202
R201
R620
R624
R621
R622
R623
R617
R612
R618
R615
R619
R611
R616
R614
R401
R402
R207
R203
R204
R567
R205
R565
R566
R560
R558
R555
R563
R554
R564
R568
R559
R552
R253
R254
R256
R211
R251
R255
R909
R252
R504
R553
R503

MAIN BOARD



MAIN BOARD

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V1	310EUB4				

SEMICONDUCTORS

ITEM No.	TYPE / MFGR. No./PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
CR201	1N60/0575005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
CR251	1N34A/0575001	1N34AS	1N34A	PTC207	HEP134	SK3007		ECG 109
CR252	1S2076/2330351	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
CR401	1N60/0575005	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 110 (6)
CR402	1N60/0575005							
CR501	1S2076/2330351	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
CR551	1N34A/0575001	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
CR552	1N34A/0575001	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
CR553	1N34A/0575001	1N34AS	1N34A	PTC207	HEP134	SK3007		ECG 109
CR701	1N34A/0575001	1N34AS (7)	1N34A (7)	PTC207 (7)	HEP134 (7)	SK3007 (7)		ECG 110 (6)
CR702	1N34A/0575001							
CR703	V09C/2330551	GE-504A	8D4 or 5A40	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
CR704	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR705	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR706	H520-1	GECR-5	JD1300	PTC211		SK3068		ECG 503
CR901	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR902	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR903	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR904	V06C/2330251	GE-504A	8D6 or 5A60	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT214	ECG 116 or ECG 117
CR905	AW01-07/2330302 (7.5 V Zener)	GEZO-7.5	Z-1207	PTC504	HEPZ0410	SK3059	RT239	ECG 138
TR201	2SC682(A)/0573474	GE-39	(IR)2SC682A	PTC726	HEP709	SK3018	RT113	ECG 161
TR202	2SC682(A)/0573474	GE-39	(IR)2SC682A	PTC726	HEP709	SK3018	RT113	ECG 161
TR203	2SC717/2320141	GE-17	(IR)2SC717	PTC132	HEP718	SK3018	RT102	ECG 107
TR251	2SC460(B)/2320041	GE-20	(IR)2SC460B	PTC136	HEP720	SK3018	RT102	ECG 107
TR252	2SC856/2320051	GE-55	TR-76	PTC144	HEP712	SK3044	RT110	ECG 194
TR401	2SC460(B)/2320041	GE-20	(IR)2SC460B	PTC136	HEP720	SK3010	RT102	ECG 107
TR402	2SB77(C)/0573131	GE-50	TR-85	PTC109	HEP633	SK3004	RT121	ECG 102A
TR403	2SC458(D,C)/2320596	GE-20	TR-51	PTC121	HEP53	SK3124	RT102	ECG 123A
TR404	2SC1213(D,C)/ 2320647	GE-63 (9)	TR-24 (9)	PTC143 (9)	HEP242 (9)	SK3024 (9)		ECG 123A
TR405	2SA673(B,C)/2320631	GE-67 (9)	TR-30 (9)	PTC142 (9)	HEP243 (9)	SK3025 (9)		ECG 159
TR502	2SA15(V,BK)/2320514	GE-50		PTC109	HEP635	SK3005		ECG 100
TR503	2SC458(C,D)/2320591	GE-20	TR-51	PTC121	HEP53	SK3124	RT102	ECG 123A
TR551	2SC535(B,C)/2320471	GE-20	(IR)2SC535B	PTC136	HEP56	SK3018	RT114	ECG 107
TR552	2SC458(B,C)/2320596	GE-20	TR-51	PTC121	HEP3124	SK3124	RT102	ECG 123A
TR601	2SC458(C,B)/2320591	GE-20	TR-51	PTC121	HEP3124	SK3124	RT102	ECG 123A
TR602	2SB77(C)/0573131	GE-50	TR-85	PTC109	HEP633	SK3004	RT121	ECG 102A
	2SB77(C,D)/ 2320123 (3)	GE-50	TR-85	PTC109	HEP633	SK3004	RT121	ECG 102A
TR603	2SC458(D,C)/2320596	GE-20	TR-51	PTC121	HEP53	SK3124	RT102	ECG 123A
TR604	2SC1061(C)/2320651	GE-66	TR-92	PTC110	HEP245	SK3054	RT154	ECG 152
TR505	2SD337(B)/0573166	GE-16	TR-01	PTC105	HEP232	SK3009	RT127	ECG 121
TR701	2SC458(B)/0573480	GE-20	(IR)2SC458B	PTC121	HEP53	SK3124	RT102	ECG 123A
TR702	2SA673(B,C)/2320631	GE-21	TR-28	PTC103	HEP242	SK3114	RT115	ECG 159
TR703	2SD460(B)/0573212	GE-25	TR-27	PTC105	HEP235	SK3035	RT127	ECG 127
TR901	2SD337(A,BK,B)/ 2320541	GE-16	TR-01	PTC105	HEP232	SK3009	RT127	ECG 121
TR902	2SC1213(B,C)/ 2320646	GE-63	TR-24	PTC143	HEP242	SK3024		ECG 128
VA401	HV-46/2330611							

(3) Used in some versions.
(6) Matched Pair
(7) Two required - select matched pair.
(9) Complementary Pair.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					
			MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C252	47	16 V	0252525	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C253	100	16 V	0252531	RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
C255	220	10 V	0252332	ME-6-D-200	EP15-250	PC200-10	MTV200DD10	EV-1140
C257	2.2	160 V	0257523	ME-3-R-002		WBR3-500	TC595A	TVA-1435
C258	1	160 V	0257535	ME-3-R-001		WBR1-500	TT250X1B	TVA-1434
C409	10	25 V	0252621	RME-B-G-010	EP30-10	PC10-25	VTT10A25	EV-1322
C412	10	25 V	0252621	RME-B-G-010	EP30-10	PC10-25	VTT10A25	EV-1322
C420	10	25 V	0252621	RME-B-G-010	EP30-10	PC10-25	VTT10A25	EV-1322
C421	220	16 V	0252532	ME-6-E-200	EP15-250	PC200-16	MTV200DE15	EV-1240
C423	22	16 V	0252522	ME-3-G-020	EP15-25	PC20-50	VTT22A16	EV-1224
C424	22	16 V	0252522	ME-3-G-020	EP15-25	PC20-50	VTT22A16	EV-1224
C425	220	16 V	0252532	ME-6-E-200	EP15-250	PC200-16	MTV200DE15	EV-1240
C502	1	50 V	0252811	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C504	33	16 V	0252523	ME-3-E-035	EP15-25	PC30-25	MTV30CD25	EV-1325

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS* for the most up-to-date replacement.

ELECTROLYTIC CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA: MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C552	22 16 V	0252522	ME-3-G-020	EP15-25	PC20-50	VTT22A16	EV-1224
C554	4.7 25 V	0252615	RME-A-G-005	EP30-5	PC5-50	VT4R7A50	EV-1319
C603	1 25 V	0251007	RME-A-G-001	EP30-1	PC1-50	MTV1C050	EV-1315
C605	10 16 V	0251077	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1322
C606	2.2 16 V	0251073	RME-A-E-002	EP15-2	PC2-100	VTT2R2A50	EV-1317
C607	10 25 V	0252621	RME-B-G-010	EP30-10	PC10-25	VTT10A25	EV-1322
C609	330 10 V	0252333	ME-B-E-250	EP15-250	WBR300-35	MTA330G50	EV-1245
C610	47 16 V	0252525	RME-E-E-050	EP15-50	PC50-16	MTV50C050	EV-1226
C611	1000 10 V	0252336	RME-M-D-1000	EP15-1000	PC1000-16	MTA1000G25	EV-1160
C704	4.7 25 V	0252615	RME-A-G-005	EP30-5	PC5-50	VT4R7A50	EV-1319
C706	1 50 V	0252811	RME-A-J-001	EP50-1	PC1-50	MTV1C050	EV-1615
C710	100 16 V	0252531	RME-E-E-100	EP15-100	PC100-16	MTV100C015	EV-1230
C713	470 16 V	0252535	RME-L-E-500	EP15-500	PC500-16	MTV500B015	EV-1250
C714	220 16 V	0252532	ME-6-E-200	EP15-250	PC200-16	MTV200E15	EV-1240
C715	6.8 (NP) 25 V	0252652				TGX5010A	
C901	2200 25 V	0259794	ME-G2000		AA0080A	FP060.2	TVL-1243
C902	33 16 V	0252523	ME-3-E-035	EP15-25	PC30-25	MTV30C025	EV-1325
C903	100 16 V	0252531	RME-E-E-100	EP15-100	PC100-16	MTV100C015	EV-1230
C904	220 16 V	0252532	ME-6-E-200	EP15-250	PC200-16	MTV200E15	EV-1240

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA: ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C201	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C203	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C205	15 500 V 5%		CCTO-150	OTZ-15	NP015	CN0415	10TCC-Q15
C206	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C207	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C209	12 500 V 5%		CCTO-100	OTZ-10	NP010	CN0410	10TCC-Q10
C210	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C212	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C213	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C214	2 pF 50 V +.25			OTZ-2R2	NP02P2	CN0522	10TCC-V22
C215	47 50 V		CCTO-470	OTZ-47	NP047	CN0447	10TCC-Q47
C216	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C217	2 pF 500 V 5%	0231135		OTZ-2R2	NP02P2	CN0522	10TCC-V22
C218	10 pF 50 V +.5		CCTO-100	OTZ-10	NP010	CN0410	10TCC-Q10
C219	10 pF 50 V +.5		CCTO-100	OTZ-10	NP010	CN0410	10TCC-Q10
C220	.01 500 V		CCO-103	DD-103	GP1000D	JF110	10TS-S10
C221	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C223	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C224	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C225	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C251	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C254	.0022 50 V 10%		1MOF-1-222	CPR-2200J	OPMS6D22	EWF1A222	1PB-D22
C256	.1 160 V		20P-3-104		OPMS2P1	EWF2010	2PS-P10
C260	47 50 V 10%		CCTO-470	OTZ-47	NP047	CN0447	10TCC-Q47
C261	47 50 V 10%		CCTO-470	OTZ-47	NP047	CN0447	10TCC-Q47
C262	390 500 V 10%		CCD-391	DD-391	GP390	GP339	10TS-T39
C263	10		CCTO-100	DTZ-10	NP010	CN0410	10TCC-Q10
C264	.01		CCO-103	CK-103	MGP01	TA110	TG-S10
C401	6 pF 500 V +.25	0247006					10TCC-V56
C402	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C403	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C404	5 pF 500 V +.25				NP05		10TCC-V50
C405	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C406	50 N330/50 V 5%	0242812	*			*	10TCS-Q50
C407	.01 50 V		CCD-103	CK-103	MGP01	TA110	TG-S10
C408	100 N330/50 V 5%	0242813	*			*	10TCS-T10
C410	.0047 50 V		60P-1-472		OMS6D47	EWF6247	6PS-D47
C411	.033 50 V		40P-2-333		OPMS6S33	EWF4133	4PS-S33
C422	220 50 V 10%		CCD-221	DD-221	GP220	GP322	10TS-T22
C426	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C427	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C428	.01		CCO-103	CK-103	MGP01	TA110	TG-S10
C503	.0047 50 V		60P-1-472		OMS6D47	EWF6247	6PS-D47
C505	39					CN0439	10TCC-Q39
C551	.068 50 V 10%		40P-3-603		OPMS6S6B	EWF416B	4PS-S60
C553	.1 50 V		10P-2-104		OPMS2P1	EWF10A10	225P10491WD3
C555	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C556	.01 50 V		CCO-103	CK-103	MGP01	TA110	TG-S10
C601	.047 500 V		60P-3-503		OPMS6S5	PVG615	6PS-S50
C602	.047 500 V		60P-3-503		OPMS6S5	PVG615	6PS-S50
C608	.033 500 V		60P-3-333		OPMS6S33	EWF6133	6PS-S33
C701	.0047 50 V 10%		60P-1-472		OMS6D47	EWF6247	6PS-D47
C702	.0047 50 V 10%		60P-1-472		OMS6D47	EWF6247	6PS-D47
C703	.068 50 V 10%		40P-3-683		OPMS6S6B	EWF416B	4PS-S60
C705	.1 500 V		60P-4-104		OPMS6P1	EWF601B	6PS-P10
C707	.01 50 V 10%		10P-1-103	CPR-10000J	OPMS6S1	EWF1A110	225P10391WD3
C708	.068 50 V 10%		40P-3-683		OPMS6S6B	EWF416B	4PS-S68
C711	.022 50 V 10%		10P-1-223		OPMS6S22	EWF1A122	225P22391WD3
C712	.047 400 V 10%		40P-3-473		OPMS6S47	EWF447	4PS-S47
C716	.0015 50 V 10%	0274012	CCD-152	DD-152		GP215	10TS-D15
C717	.0033 50 V 10%		CCO-332	DD-332	GP3300	JF233	2SS-D33
D718	220 500 V 10%		CCD-221	DD-221	GP220	GP322	10TS-T22
G719	B20 500 V 10%		CCD-B21	DD-B21	GPB20	GP3B2	10TS-T02
C720	.0022 500 V 10%		CCD-222	DD-222	GP2200	GP222	10TS-D22
C721	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
CP901a	.0047 500 V		CCO-472	DD-472G	GP4700	JF247	10TS-D47
b	.0047 500 V		CCO-472	DD-472G	GP4700	JF247	10TS-D47
CP902a	.0047 500 V		CCD-472	DD-472G	GP4700	JF247	10TS-D47
b	.0047 500 V		CCD-472	DD-472G	GP4700	JF247	10TS-D47

* Not normally in dsitributor's stock. Available thru distributor on order to manufacturer.

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA: MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS—IRC PART No.	MALLORY PART No.
R267	Brightness (Slider Type)	200 K	0166612 (18)				
R268	Contrast (Slider Type)	500	0166610				
R420	Volume (Slider Type)	50 K	0166613				
R562	AGC	2000	0151253	TSV-2.5K or T-2500		X201R252B	MTC23L1
R606	Vert Hold	50 K	0153710	TT-31 or [F1-50K, SNK104, AK-36]	B47-50K-S or [NP-50K-S, NML-A-300, TT-2]	BU11, CF12, S56A	PTA5AL or [RU54L, SL37, SN1000]
R609	Vert Size	5000	0151254	TSV-5K or T-5000	C-502	X201R502B	MTC53L1
R610	Vert Linearity	5000	0151254	TSV-5K or T-5000	C-502	X201R502B	MTC53L1
R907	B+ Regulator	1000	0151084	TSV-1K or T-1000	C-102	X201R102B	MTC13L1

(18) 250 K may be used in some versions.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA: WORKMAN PART No.	MFGR. PART No.
R254	10 1/4 W Carbon 5%		0114041
R429	5.6 1/2 W Carbon	CA5.6	0114011
R430	5.6 1/2 W Carbon	CA5.6	0114011
R607	8.2 1/4 W Carbon 5%		0114015
R614	.5 2 W WW 5%	WS .47	0149355
R616	3.3 1/4 W Carbon 5%		0114005

ITEM No.	RATING	REPLACEMENT DATA: WORKMAN PART No.	MFGR. PART No.
R624	1 1/4 W Film 5%		0119502
R625	1 1/4 W Film 5%		0119502
R902	33 1 4 W Film		0178281
TH551	Thermistor (80 Cold)		0576057 (D-1E)
TH552	Thermistor (300 Cold)		0576036 (D-2B)
TH601	Thermistor (80 Cold)		0576057 (D-1E)

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA: MFGR. PART No.	OTHER IDENTIFICATION	MEISSNER PART No.	MILLER PART No.
CP201	1st Video IF	2790071			
CP202	47.25 MHz Trap	2790072			
CP203	41.25 MHz Trap	2790073			
CP205	Video Detector	2790075			
CP206	39.75 MHz Trap	2790074			
L201	4th Video IF	2140645			
L206	RF Choke (5.8 uH)	2120467			74F566AP
L207	RF Choke (1.9 uH)	2120468			74F186AP
L208	Peaking (47 uH)	2120239			74F475A1
L209	Peaking	2120109			
L251	Peaking (150 uH)	2120249			72F154AP
L252	Peaking (680 uH)	2120267			74F566AP
L253	4.5 MHz Trap	2120194			
L701	RF Choke (0.35 uH)	2120331			70F337AP
L702	RF Choke (12.5 uH)	2120041			72F125AP
L901	RF Choke (470 uH)	2120263			
PR251	Peaking (47 uH)	2121136 (1)			
PR252	Peaking (270 uH)	2120624 (2)			72F274AP (3)
T001	Balun				
T201	2nd Video IF	2140651			
T202	3rd Video IF	2140652			
T401	Sound Take-off	0322315			
T402	Ratio Detector	0326022			

(1) Includes 2700 ohm Resistor.
(2) Includes 10 K ohm Resistor.
(3) Shunt with 10 K ohm Resistor.

COILS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA: MFGR. PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.
L703	Horiz Size	(1)				
T701	Horiz Osc (Hold)	2160521 2160232 (2)				

(1) Part of deflection yoke.
(2) Used in some versions.

TRANSFORMERS (Sweep Circuits)

ITEM No.	USE	REPLACEMENT DATA: MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	NOTES
L602	Yoke Horiz = .16 mH 90° Vert = 4.2 mH	2440451 2440352 (1)				
T702	Horiz Driver	0390018				
T703	Horiz Output	2430522 2430563 (1)				

(1) Used in some versions.

TRANSFORMER (Power)

ITEM No.	RATING: PRI.	RATING: SEC. 1	REPLACEMENT DATA: MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	NOTES
T901	120 VAC @ .28 AAC	14.4 VAC @ 1.2 ADC	2210613 2210611 (1)				(1) Used in some versions.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA: MFGR. PART No.	QUAM PART No.	NOTES
SP401	4" PM 25 ohms 4 3/4" x 3 1/8" PM 25 ohms	2410461 2410421 (2)		(2) Used in some versions

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA: PART No. DEVICE	PART No. HOLDER	BUSS PART No. DEVICE	BUSS PART No. HOLDER	LITTELFUSE PART No. DEVICE	LITTELFUSE PART No. HOLDER	WORKMAN PART No. DEVICE
F901	Fuse, .75 Amp @ 125 V Quick Acting, Pigtail	2720052		GJV 3/4		318.750		
F902	Fuse, 1.6 Amp @ 125 V Quick Acting, Pigtail	0591207		GJV 1 1/2		31801.5		

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
	VHF Antenna	2750091	
	UHF Antenna	2750051	
	VHF Tuner	2420616	(HT-305J)
	UHF Tuner	2420155	(HU-407C)
CP204	Component Combiantion	2790065	Bias (2nd Video IF)
S001	Switch		Antenna (Ext-Int) Part of Antenna Board Part No. 4161141
S901	Switch	2610231	Power On-Off
SG251	Spark Gap	2340032	
	Printed Circuit Board	2513931	Main (With Components) SV

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

ITEM	PART No.
Back Cover 1007042 (WTG-51722)	3153996
Back Cover 1007C32 (WTG-51714)	3153995
Back Cover 1007B32 (WTG-51706)	3153994
Dial-VHF Indicator	3251884
Knob-Contrast, Brightness, Volume	3253951

ITEM	PART No.
Knob-On-Off Switch	3253971
Knob-Preset Fine Tuning	3253461
Knob-Horiz Hold	3252571
Knob-UHF Channel Selector	3253491
Knob-VHF Channel Selector	3253961

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Earphone	2730013	Model 1007042 (WTG-51722)

WIRING DATA

High Voltage Lead	Use BELDEN No.	8069 (17KV)
Shielded Hook-up Wire	Use BELDEN No.	8805 (Single Conductor)
		8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No.	8530 (Solid) Available in 12 Colors
		8524 (Stranded) Available in 12 Colors
300-Ohm Tuner Input Lead	Use BELDEN No.	8225
300-Ohm Antenna Lead-in	Use BELDEN No.	823D or 8275
Antenna Rotor Cable	Use BELDEN No.	8464 (Flat) or 8484 (Round) - 4 Conductor
		8485 (Round) - 5 Conductor
		8488 (Round) - 8 Conductor

C610
C216
C215
C213
C214
C212
C209
C210
C207
C205
C217
C608
C220
C221
C219
C611
C607
R610
C609
R609
R606
C218
C223
R704
R703
C251
R706
C225
C201
C203
C206
C555
C556
C551
C261
C260
C252
R258
C253
R425
R424
R426
R432
R423
R422
R708
R707
R709
C224
C712
R259
R421
R427
R429
R430
R428

C410
C406
C404
C401
C402
C403
C902
C405
C408
C407
C411
C602
C605
C606
C603
C601
C503
C705
C702
C704
C701
C716
C703
C706
C708
C409
C552
C554
C502
C904
C553
C504
C256
C257
C254
C258
C422
C423
C412
C420
C421
C707
C713
C710
C714
C715
C903
C255
C426
C425
C424

MAIN BOARD

C264
C263
70
68
69
67
66
91
71
C262
C717
C428
92
C721
C718
C720
C427
82
72
96
C505
C719
95
90
93
94
97
89
83
85
84
86
87
88
81
80
L209
79
78
77
76
75
74
73

TR202
TR203
TR604
TR605
TR201
TR603
TR552
TR602
TR551
TR601
TR502
TR503
TR501
TR251
TR703
TR702
TR701

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MAIN BOARD

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain voltage at 120VAC.
Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: GC ELECTRONICS
VHF IF OUTPUT 9296, 9297, 9300
CP201, CP202, CP203, CP205, CP206,
L201, L253, T401, T402 9440

VIDEO IF ALIGNMENT

Set the channel selector to highest unused channel. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from that shown. Connect a 3 volt bias to A, low side to ground.

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input to B, low side to ground.	Thru .001 uF to C122 on VHF tuner, low side to ground.	44MHz (10MHz Sweep)	39.75 MHz	Adjust CP206 for MINIMUM. See Figure 1.
			41.25 MHz	Adjust CP203 for MINIMUM. See Figure 1.
			47.25 MHz	Adjust CP202 for MINIMUM. See Figure 1.
Vertical input to B, low side to ground.	Thru .001 uF to C122 on VHF tuner, low side to ground.	44MHz (10MHz Sweep)	39.75 MHz 41.25 MHz 42.17 MHz 44.00 MHz 45.75 MHz 47.25 MHz	Adjust CP201 for placement of 42.17 MHz and 44.00 MHz markers. Adjust L201 for placement of 44.00 MHz and 45.75 MHz markers. Adjust CP205 and VHF IF OUTPUT for placement of 42.17 MHz and 45.75 MHz markers. See Figure 2.

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 L253 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Temporarily connect two 100K resistors in series from C to ground (used for alignment only). Select any non-interfering channel.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CONNECT VTVM	REMARKS
Thru .01 uF to B low side to ground.	4.5MHz (Unmod)	DC probe to C low side to ground.	Adjust T402 (Pink) and T401 for maximum.
Thru .01 uF B low side to ground.	4.5MHz (Unmod)	DC probe to D, low side to E.	Adjust T402 (Blue) for zero. A positive or negative reading will be obtained on either side of the correct setting. Remove the two 100K alignment resistors.

MISCELLANEOUS ADJUSTMENT

B+ ADJUSTMENT

Connect VTVM to terminal P3, low side to ground.
Adjust B+ Reg Control (R907), for +11.4 V DC
±.1 V at 120 VAC

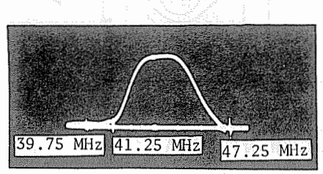


FIGURE 1

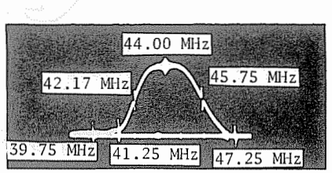
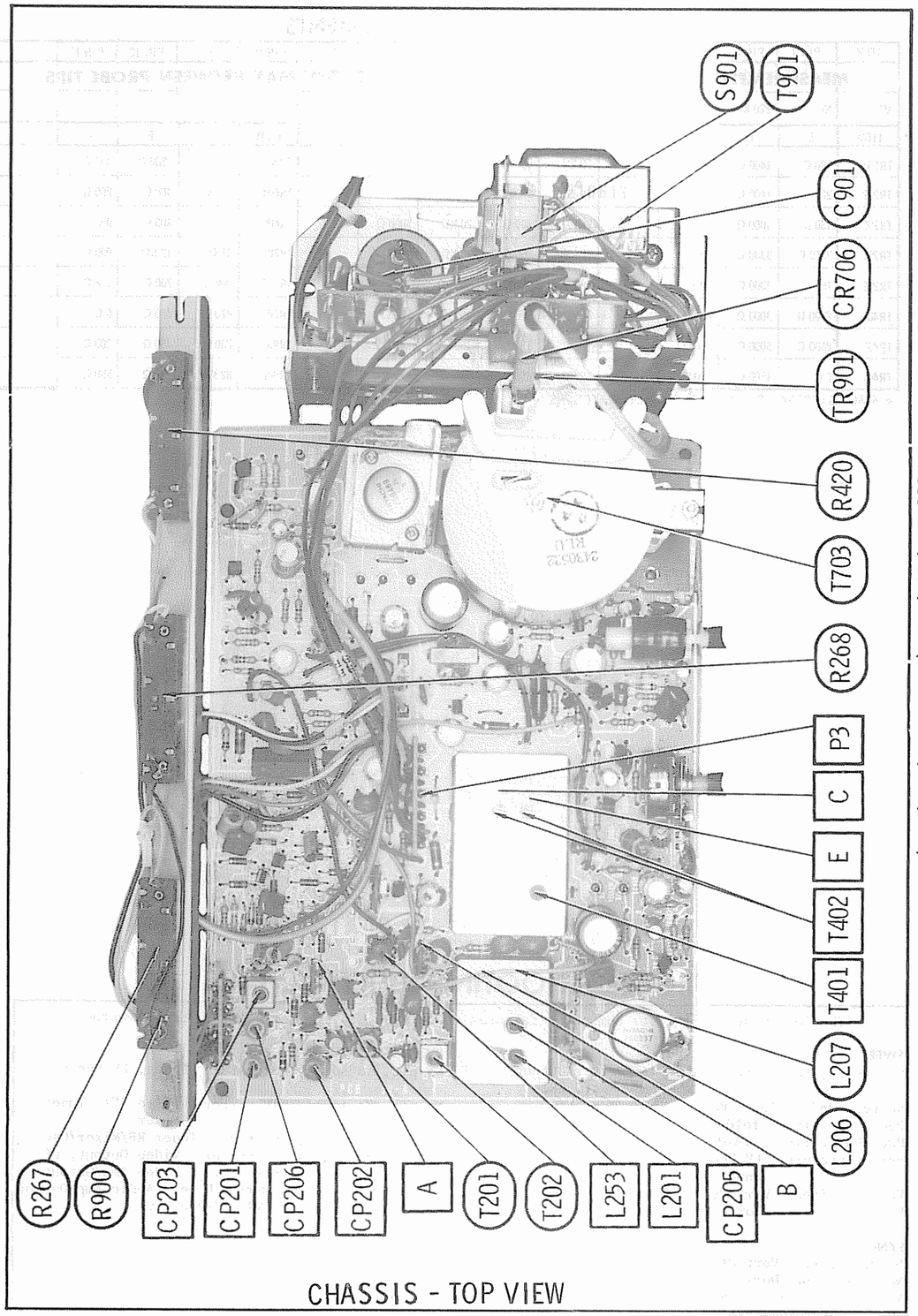


FIGURE 2



CHASSIS - TOP VIEW