

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune to a TV station and set all controls for normal operation. Connect a jumper across Horizontal Stabilizer Coil (L19) and a jumper between point Ⓢ and ground. Adjust Horizontal Hold control until picture tends to float slowly across screen. Remove jumper from Stabilizer Coil and adjust B1 until picture tends to float slowly across screen. Remove

jumper from point Ⓢ and ground. Interrupt signal momentarily to see if picture remains in proper horizontal sync.

Adjust Width Control (R4C) until picture is just wider than necessary to fill screen.

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove all knobs and cabinet back held by 11 screws.
2. Unplug antenna leads, picture tube socket, high voltage lead, yoke plug, speaker leads, and ground lead from high voltage cage to retainer ring.
3. Remove 4 screws from chassis bottom and slide out chassis.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions, loosen yoke clamp and remove yoke.
2. Place cabinet face down on a soft protective surface.
3. Loosen retainer bolt and remove retainer. Remove picture tube.

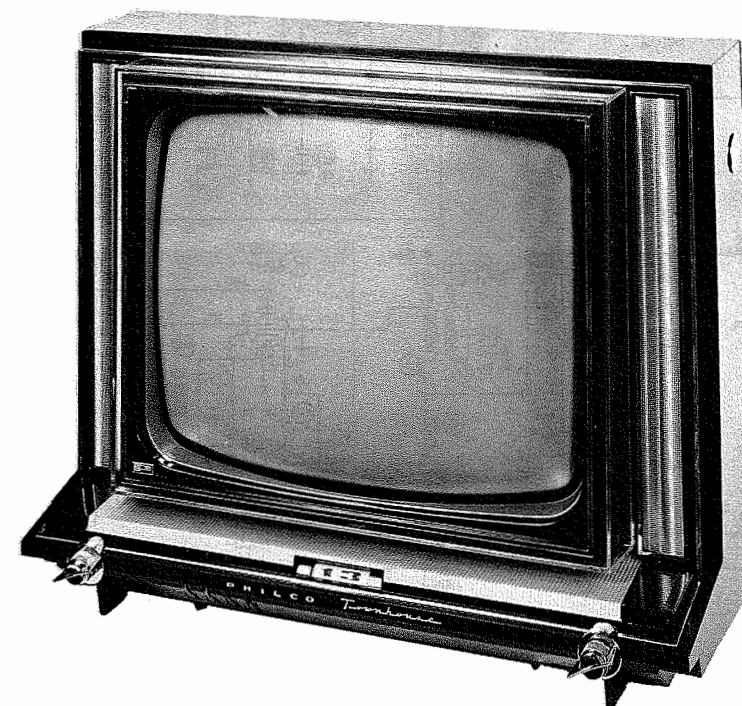
SET 700 FOLDER 3

PHILCO
CHASSIS 14J45/U

PHOTOFACT® Folder

with CIRCUITRACE®

PHILCO
CHASSIS 14J45/U



MODEL M3824BK

TRADE NAME	PHILCO	Models	Chassis
		M3822GD, M3824BK, WH, M3826CH, WA	14J45
		UM3822GD, UM3824BK, WH, UM3826CH, WA	14J45U
SUPPLIER	Philco Corp., Subsidiary of Ford Motor Co., Tioga & "C" Streets, Philadelphia, Pennsylvania		
TYPE SET	Television Receiver		
TUBES	VHF - Fourteen, UHF - Fifteen		
POWER SUPPLY	110-120 Volts AC, 60 Cycles		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		
		RATING	145 Watts, 1.5 Amp. @ 117 Volts AC

SERVICING IN THE FIELD

SAFETY GLASS

For picture tube and safety glass cleaning, it is necessary to remove the chassis. (See "Disassembly Instructions".)

FUSE OR FUSE DEVICE

A 1½" length of fuse wire is used for filament protection.

A 5.6Ω fusible resistor is used for low voltage power supply protection.

VHF OSCILLATOR ADJUSTMENT

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

AGC

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

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Stabilizer Coil (L19). (See "Tube Placement Chart" for location.)

WIDTH

The width may be varied by a Width Control. (See "Tube Placement Chart" for location.)

FOCUS

The focus may be varied by connecting the lead from pin 4 of the picture tube to various voltage points. (For location, see "Chassis - Top View".)

CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

PHILCO
CHASSIS 14J45/U

SET 700 FOLDER 3

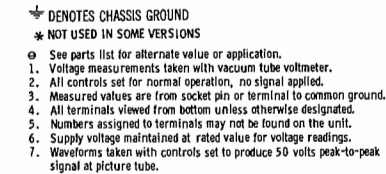
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



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. MA713

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. © 1964 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U. S. of America

DATE 6-64 SET 700 FOLDER 3

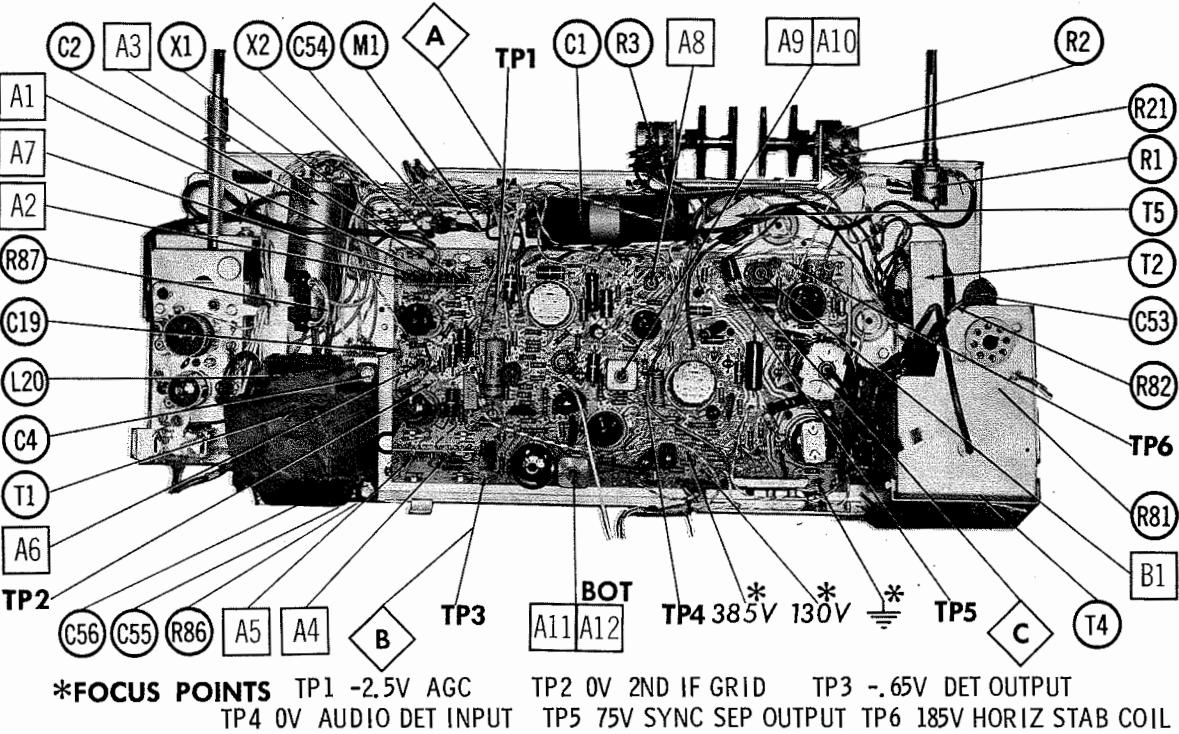


PHILCO
CHASSIS 14J45/U

RESISTANCE MEASUREMENTS

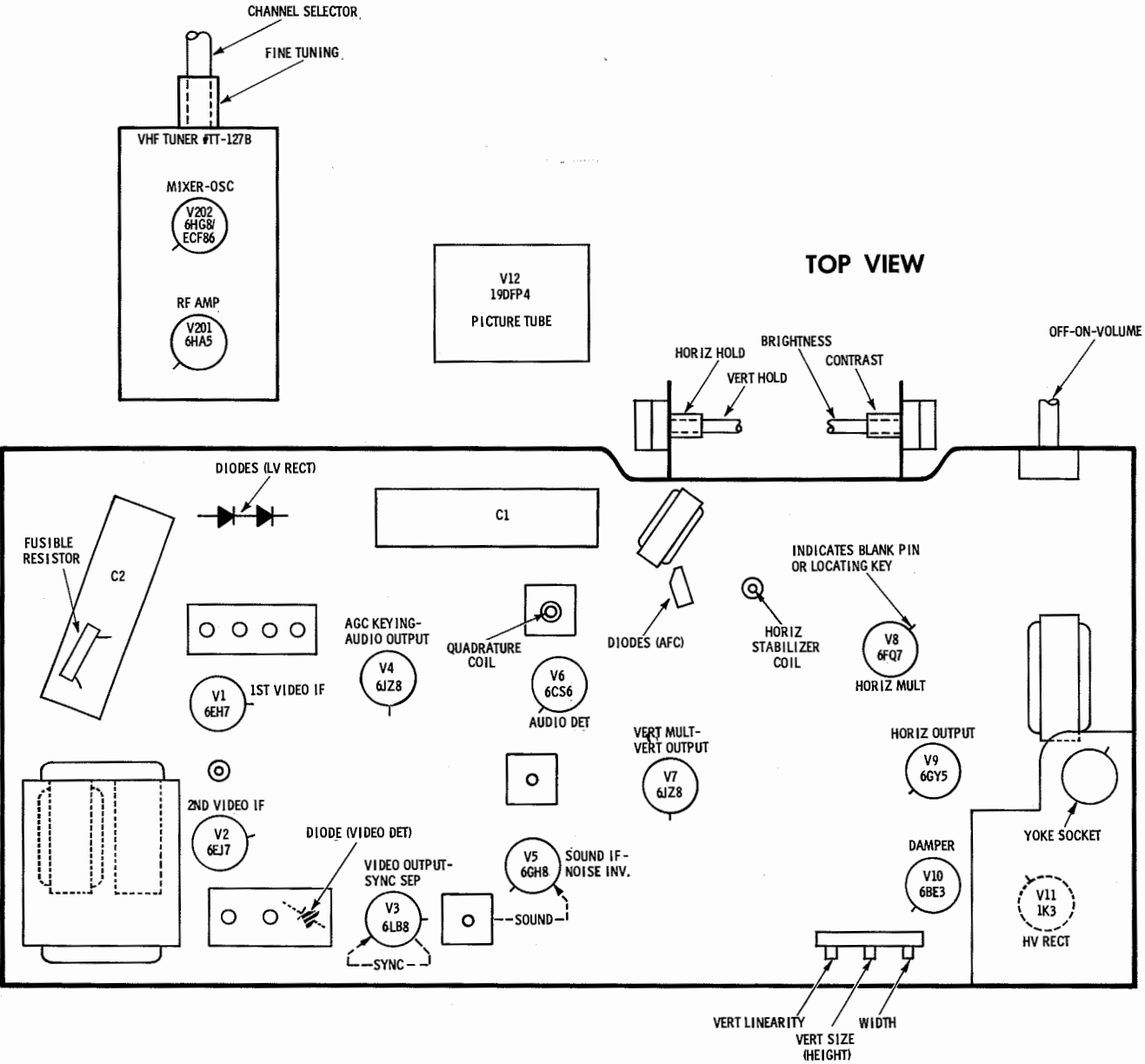
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
V1	6EH7	24Ω	331K	24Ω	FIL	FIL	0Ω	† 1850Ω	† 23K	0Ω			
V2	6EJ7	100Ω	.1Ω	100Ω	FIL	FIL	0Ω	† 2223Ω	† 2223Ω	0Ω			
V3	6LB8	0Ω	1.8meg	† 15K	FIL	FIL	0Ω	● 3300Ω	† 21K	† 5500Ω			
V4	6JZ8	FIL	# 900K	NC	† 800Ω	NC	100K	100K	† 3800Ω	390Ω	† 18K	† 24Ω	FIL
V5	6GH8	† 32K	5.3Ω	† 12K	FIL	FIL	† 12K	220Ω	3500Ω	2.8meg			
V6	6CS6	5.4Ω	560Ω	FIL	FIL	† 395K	† 9500Ω	3.5Ω					
V7	6JZ8	FIL	† 3.9meg	NC	† 230Ω	NC	1.2meg	1.2meg	† 1500Ω	0Ω	270K	0Ω	FIL
V8	6FQ7	† 16K	2.1meg	820Ω	FIL	FIL	† 29K	100K	820Ω	0Ω			
V9	6GY5	FIL	NC	† 1025Ω	0Ω	820K	NC	† 1025Ω	† 1025Ω	820K	0Ω	† 1025Ω	FIL
V10	6BE3	FIL	FIL	FIL	NC	NC	NC	# 650K	NC	NC	† 25Ω	FIL	FIL
V11	1K3	PINS 1 THROUGH 8 HAVE INFINITE RESISTANCE											TOP CAP † 611Ω
V12	19DFP4	FIL	NC	† 450K	† 120K	TP	# 70K	# 80K	FIL				
V201	6HA5	1.3meg	0Ω	FIL	FIL	† 5100Ω	0Ω	0Ω					
V202	ECF86/ 6HG8	0Ω	100K	0Ω	FIL	FIL	10K	† 35K	† 3800Ω	† 14K			
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12

† MEASURED FROM OUTPUT OF X2 * MEASURED FROM PIN 7 OF V10 NC NO CONNECTION TP TIE POINT
● READING DEPENDS ON POLARITY OF METER CONNECTIONS.
THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.



CHASSIS—TOP VIEW

TUBE PLACEMENT CHART



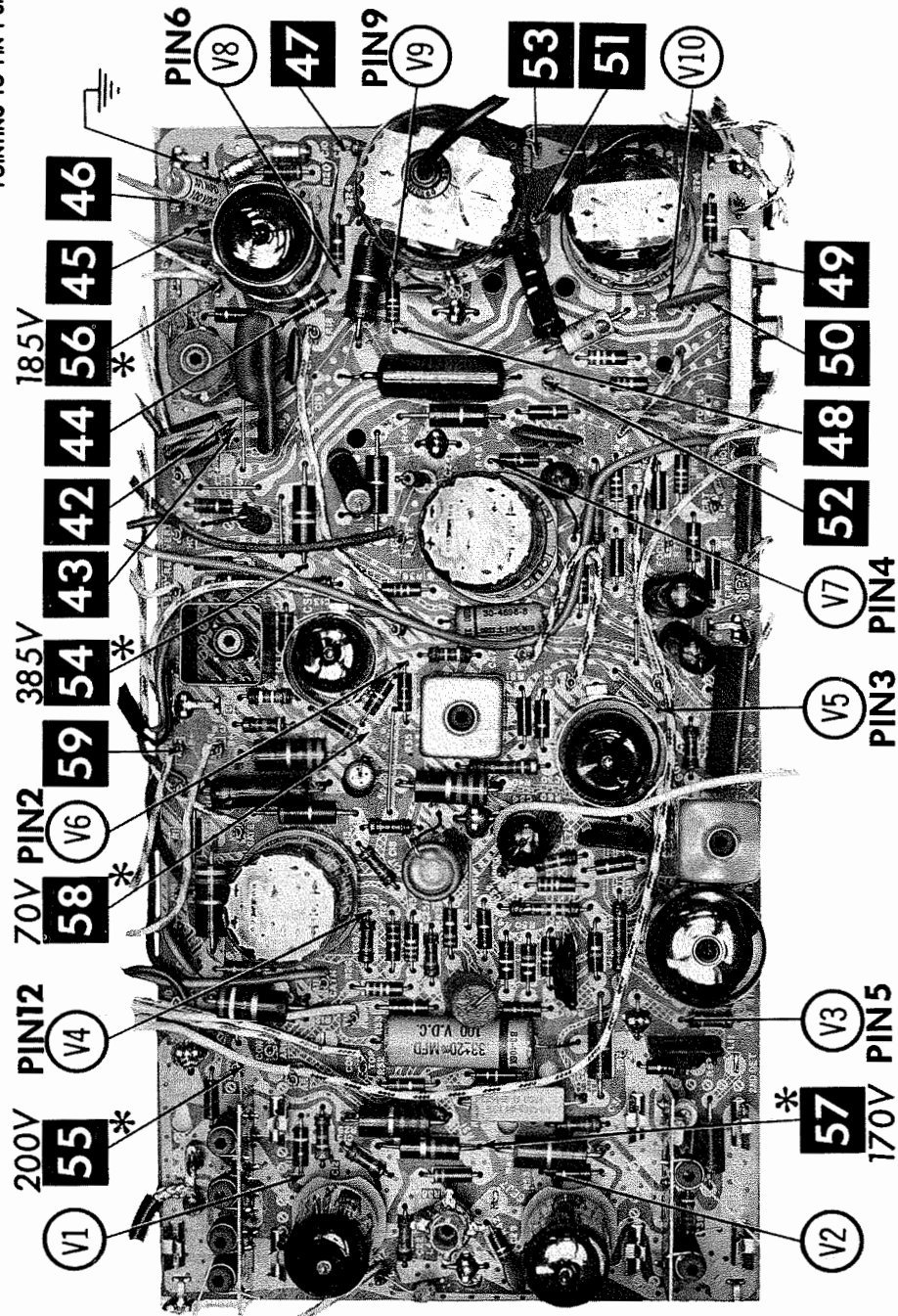
PHILCO
CHASSIS 14J45/U

TUBE FAILURE CHECK CHART

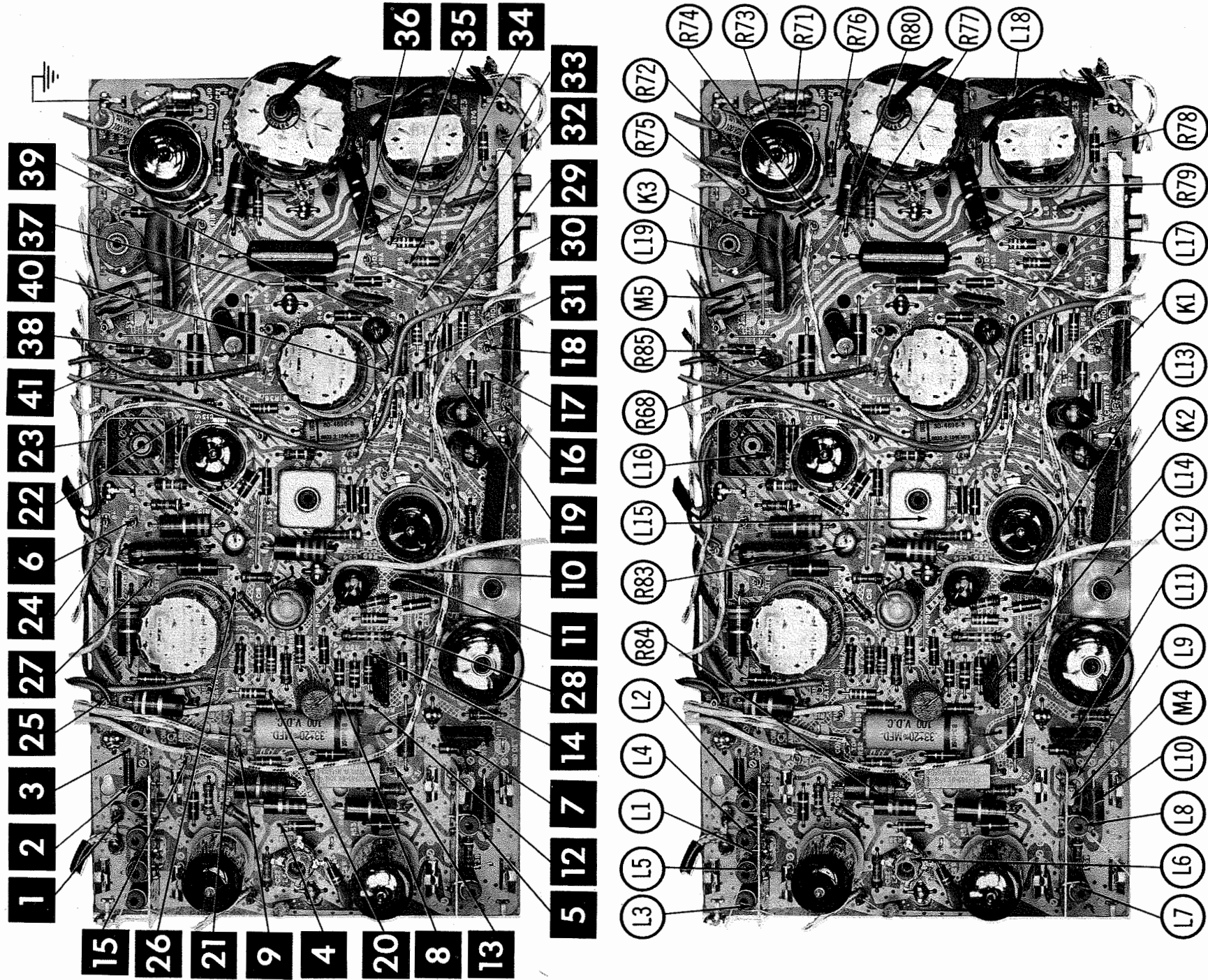
The following chart lists tubes whose failures are most likely to produce indicated symptoms. Refer to tube placement chart for location and type of tube.

POWER SUPPLY FAILURE No raster, no sound M1 (Fuse), X1, X2, R87 (Fusible Resistor)	LOSS OF PICTURE OR SOUND No pic, no sound, has raster V1, V2, M4 (Video Det. Diode), V3 No pic, no sound, has snow V201, V202, V1 No pic, has sound, has raster V3, V12 Has pic, no sound V4, V5, V6 Overloaded picture V4
SWEEP FAILURE No raster, has sound V8, V9, V10, V11, V12 No vertical deflection V7 Poor vert. linearity or foldover V7 Poor horiz. linearity or foldover V8, V9, V10 Narrow picture V8, V9, V10, X1, X2 Vert. off freq. V7 Horiz. off freq. M5 (Horiz. AFC Diode), V8	SYNC FAILURE No vert. sync V3, V5 No horiz. sync V3, V5 No vert. or horiz. sync V3, V5

FOLDER 3

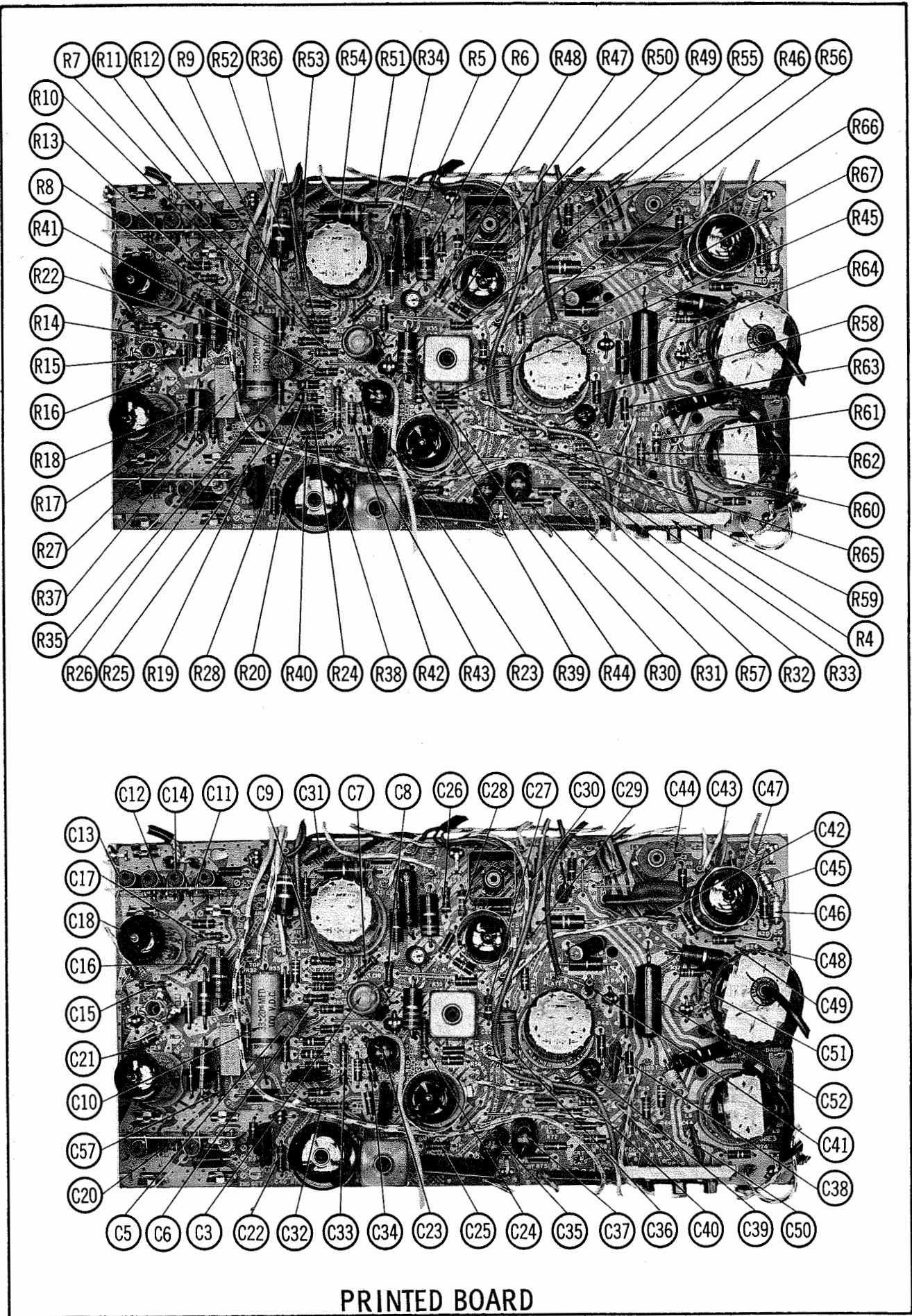


*SOURCE



PHILCO
CHASSIS 14J45/U

PRINTED BOARD



PRINTED BOARD

ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A12, Mixer Plate Coil .. GENERAL CEMENT #8606, 8606L, 8669 .. WALSCO #2543, 2544, 2588.

VIDEO IF ALIGNMENT

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 those shown. Connect a variable bias supply to the IF AGC line (point \diamond) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1.	Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	41.25MC 47.25MC 47.25MC	A1 A2 A3	Adjust for MINIMUM. Short L2 when adjusting A2. Short L3 when adjusting A3.
2.	Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	42.75MC 44.84MC 43.5MC 45.25MC 42.5MC	A4 A5 A6 A7 Mixer Plate Coil	Adjust for maximum.
3.	Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to pin 2 (grid) of V2. Low side to ground.	44MC (10MC Sweep)	42.75MC 45.75MC	A4, A5 Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
4.	Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.75MC 44.0MC 45.75MC 47.25MC	A6, A7, Mixer Plate Coil Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A4 and A5.

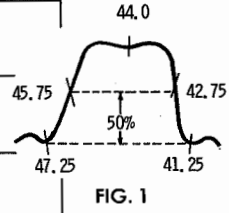


FIG. 1

4.5 MC 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 A12 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust A8 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce signal while aligning for undistorted output by adjusting A9, A10, and A11.



FIG. 2

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201 .. GENERAL CEMENT #8688, 9087, 9089 .. WALSCO #2528, 2541, 2587.

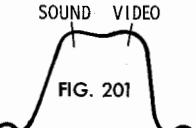
OSCILLATOR ALIGNMENT TUNER TT-127B

The oscillator on each channel is preset by means of the Fine Tuning Control. Starting with the highest available channel in area, adjust Fine Tuning for best picture and sound on each active channel.

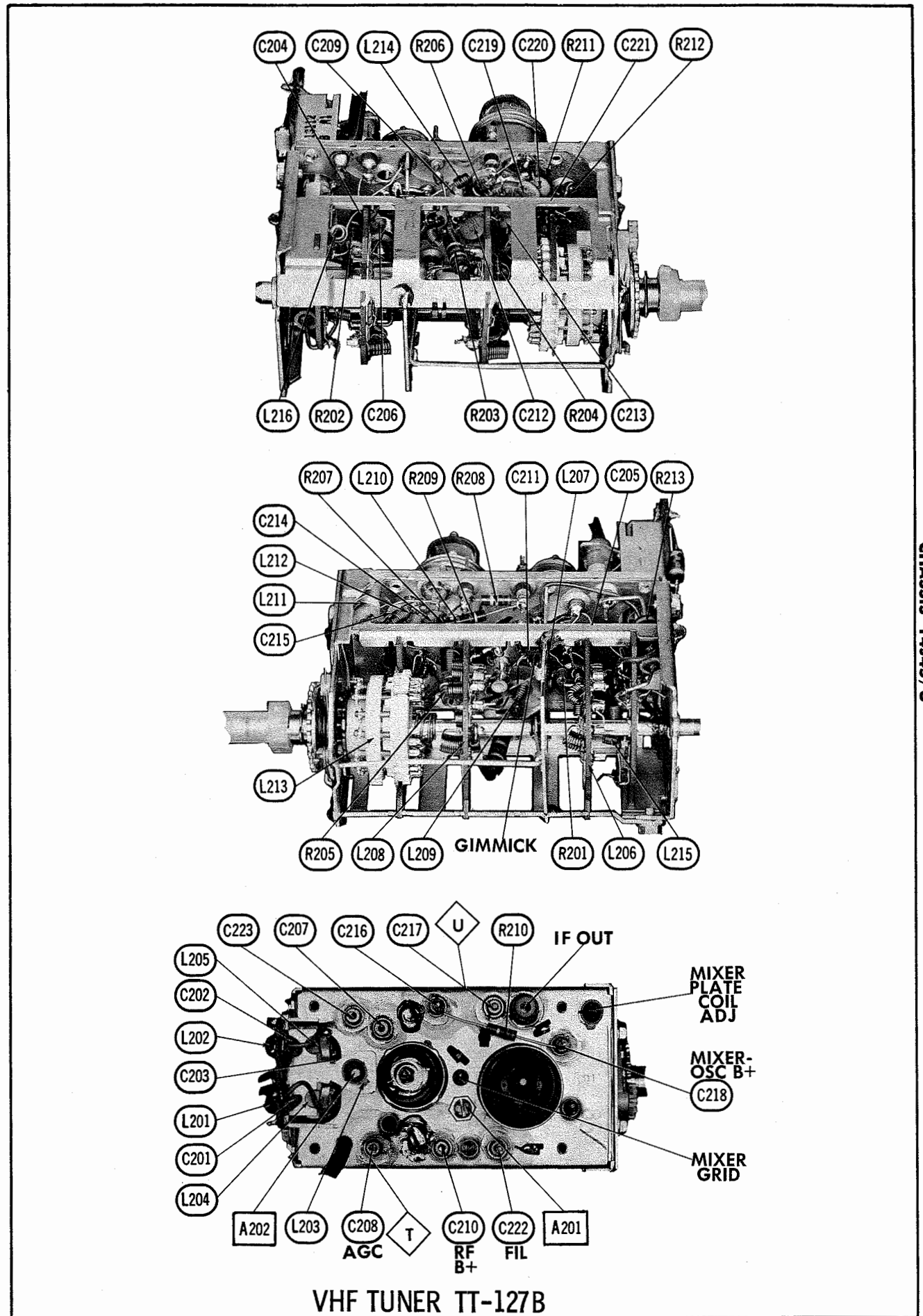
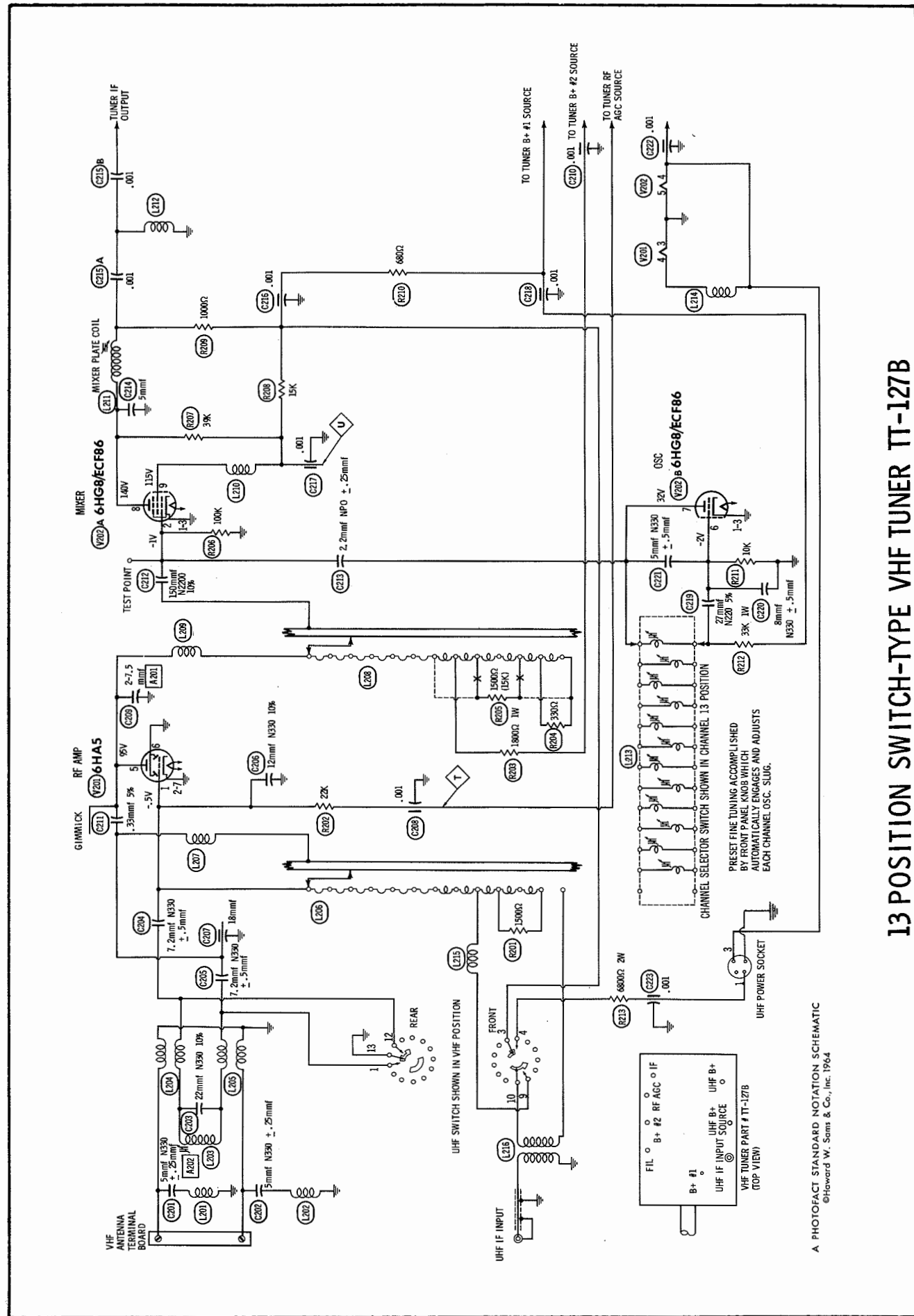
RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point \diamond . Adjust bias to obtain response curve which shows no indication of overloading.

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	Across antenna terminals with 120 Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. input to point \diamond , low side to ground.	A201	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary, expand or compress Channel 13 coils.
2.	"	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	Gimmick	Increase bias to -15 volts and adjust for MINIMUM response.
3.	"	213MC	211.25MC 215.75MC	13	Vert. input to point \diamond , low side to ground.		Decrease bias. Check response on Channels 13 thru 7 and if necessary, make compromise adjustments of A201 and Channel 13 coils.
		207MC	205.25MC 209.75MC	12			
		201MC	199.25MC 203.75MC	11			
		189MC	187.25MC 191.75MC	9			
		183MC	181.25MC 185.75MC	8			
		177MC	175.25MC 179.75MC	7			
4.	"	85MC	83.25MC 87.75MC	6	"		Check response on Channels 6 thru 2 and make compromise adjustments by expanding or compressing appropriate coils.
		79MC	77.25MC 81.75MC	5			
		69MC	67.25MC 71.75MC	4			
		63MC	61.25MC 65.75MC	3			
		57MC	55.25MC 59.75MC	2			



If interference is encountered from a nearby FM station adjust A202 for MINIMUM interference.



PARTS LIST AND DESCRIPTION
TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6HA5	V202	Mixer - Osc.	6HG8/ECF86

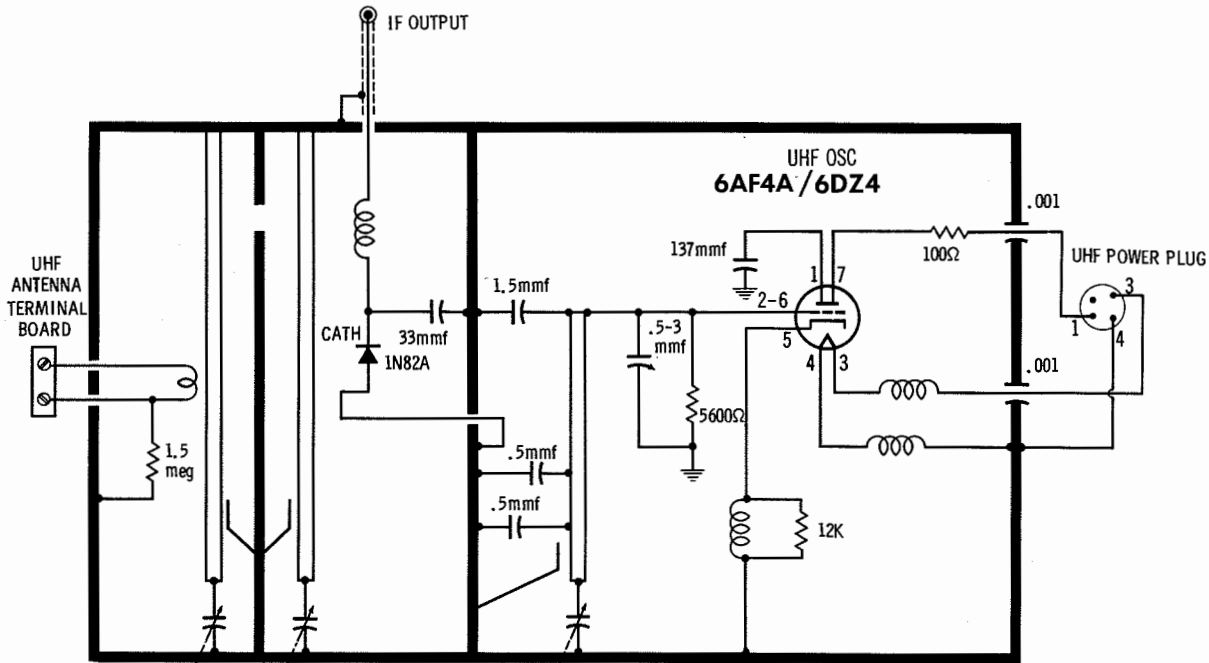
FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.
C201	5 N330 ±.25mmf	#30-1251-32		TCA-22			
C202	5 N330 ±.25mmf	#30-1251-32					
C203	22 N330 10%	#30-1251-56					
C204	7.2 N330 ±.5mmf	#30-1251086					
C205	7.2 N330 ±.5mmf	#30-1251-66					
C206	12 N330 10%	#30-1251-64					
C207	18 .001	#30-1268-25					
C208	2-7.5	#31-6520-34	EF-001	MFT-1000		CCF-102	CT280A
C209	.001		EF-001	829-7		CCF-102	CT280A
C210	.33mmf 5%	#30-1221-35		MFT-1000			
C211	150 N2200 10%	#30-1238-40					
C212	2.2 NPO ±.25mmf						
C213	5		NPO-DI 5.0	TCZ-2R2	C10V47C	CCTO-050	CNO-522
C214	.001		DD2-102	DTZ-4R7	LA10D1-C4	CCD-102	CNO-547
C215A	.001		BPD2-2X001		LA10D1-C4	CCD-102	GP210
C216	.001					CCF-102	CT280A
C217	.001		EF-001	MFT-1000		CCF-102	CT280A
C218	.001		EF-001	MFT-1000		CCF-102	CT280A
C219	27 N220 5%	#30-1251067					
C220	8 N330 ±.5mmf	#30-1251-31					
C221	5 N330 ±.5mmf	#30-1251-60					
C222	.001		EF-001	MFT-1000		CCF-102	CT280A
C223	.001		EF-001	MFT-1000		CCF-102	CT280A

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
Philco Part Number

COILS (RF-IF)

ITEM No.	USE	PHILCO PART No.	NOTES	ITEM No.	USE	PHILCO PART No.	NOTES
L201	RF Choke	32-4645-55		L209	RF Choke		Channel 13
L202	RF Choke	32-4645-55		L210	RF Choke	32-4652-71	
L203	UHF Ant. Input	32-4822-3		L211	Mixer Plate	32-4822-1	
L204	Input Balun	32-4725-4		L212	IF Output		
L205	Input Balun	32-4725-5		L213	Osc. Wafer	76-12755-2	
L206	Ant. Wafer	76-13116		L214	Fil. Choke	32-4652-72	
L207	Antenna		Channel 13	L215	RF Choke		
L208	RF Wafer	76-13117		L216	UHF IF Output	32-4835-1	



A PHOTOFAC STANDARD NOTATION SCHEMATIC
©Howard W. Sams & Co., Inc. 1964

UHF TUNER TT-136A,-137A

UHF TUNER DIAL CORD

PARTS LIST 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.

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF	6EH7	V7	Vert. Mult. - Vert. Output	6JZ8
V2	2nd Video IF	6EJ7	V8	Horizontal Mult.	6FQ7
V3	Video Output - Sync Sep.	6LB8	V9	Horiz. Output	6GY6
V4	AGC Keying -	6JZ8	V10	Damper	6BE3
V5	Sound IF - Noise Inverter	6GH8	V11	HV Rectifier	1K3
V6	Audio Detector	6CS6			

PICTURE TUBE

ITEM No.	PHILCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	NOTES
V12	19DFP4	19DFP4			

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.330A	34-8054-1	1N2093 ①	1N1764 or 1N2863 or 1N3194	40H or F-4
X2	.330A	34-8054-1	1N2093 ①	1N1764 or 1N2863 or 1N3194	40H or F-4

① A single unit may be used for X1 and X2 - VB500.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					
	CAP.	VOLT.	PHILCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.
C1	200	150	30-2568-78	AFHS1-24-24 ①	XA0262, 1 ①	XC1-20 ①	TD-200-150	FP217.865
C2A	200	150	30-2601-27	AFH4-41-75	D0042	XC4-57	TMQ-4304	WP419.39A
B	80	250			BR150-150	QT1-14	TD-150-150	TC58
C	80	250						
D	20	250						
C3	4	150	30-2596-10	PRS1400	BBR4-150	MT1-4	TD-4-150	TT150X4
C4A	100	25	30-2601-28	AFH3-156	B0362	XC2-2	TMD-1605	FP384.16
B	5	250			BR100-25	QT1-23	TD-100-25	
C	5	400						

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
① Use insulating sleeve.

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.
C5	.22 100V		P288N-.22		WMF1P22	1DP-3-224	PVC-1025
C6	100		SI-100	D6-101	LA10T1-S3	CCD-101	GP310
C7	220		SI-220	D6-221	LA10T2-S3	CCD-221	GP322
C8	100		SI-100	D6-101	LA10T1-S3	CCD-101	GP310
C9	100		SI-100	D6-101	LA10T1-S3	CCD-101	GP310
C10	.33 100V		P288N-.33		WMF1P33	1DP-4-334	PVC-1033
C11	6 NPO 5%	#30-1251-70					
C12	6 NPO ±.25mmf	#30-1287-12					
C13	.0015		SI 1500	D6-152	LA10D15-C4	CCD-152	B-215
C14	39 N330 10%	#30-1251-71					
C15	.0015		SI 1500	D6-152	LA10D15-C4	CCD-152	B-215
C16	.0015		SI 1500	D6-152	LA10D15-C4	CCD-152	B-215
C17	43 N470 5%	#30-1287-16					
C18	.0015		SI 1500	D6-152	LA10D15-C4	CCD-152	B-215
C19	.001	(.0015) †	BPD-001	DD-102	BYA10D1	CCD-102	B-210
C20	750 10%				JB6T8	CCD-751	GP375
C21	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	B-215
C22	100		SI-100	D6-101	LA10T1-S3	CCD-101	GP310
C23	.1 400V		P488N-1	DF-104	PM4P1	4DP-3-104	GEM-401
C24	.0082		SI-7500	D6-752	BYA10S1M	CCD-822	GP275
C25	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210
C26	27 N330 10%	#30-1287-10					
C27	.0039		SI-4000	D6-402	LA10D39-C4	CCD-392	GP239
C28	.0039		SI-4000	D6-402	LA10D39-C4	CCD-392	GP239
C29	680		SI-680	D6-681	LA10T68-C4	CCD-681	GP368
C30	.0033		SI-3300	D6-332	LA10D33-C4	CCD-332	GP233
C31	.0047 900V		BPD-0047	DD-472	LA10D47-C4	CCD-472	GP247
C32	.001		SI 1000	D6-102	LA10D1-C4	CCD-102	B-210
C33	.0047		SI 4700	D6-472	LA10D47-C4	CCD-472	GP247

SET 700 FOLDER 3

PHILCO
CHASSIS 14J45/U

FOLDER 3

PARTS LIST AND DESCRIPTION (CONTINUED)

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.

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELENICO PART No.	MALLORY PART No.	SPRAGUE PART No.
C34	270		SI 270	D6-271	LA10T27-C4	CCD-271	GP327	5GA-T27
C35	.015 400V 10%		BE4S15		WMF4S15	4DP-1-153	GEM-4115	4PS-S15
C36	.0033 200V 10%		P288N-.0033		WMF2D33	6DP-1-332	GEM-4147	6PS-D33
C37	.047 400V		P488N-.047		PMA547	4DP-3-473	GEM-4147	4TM-S47
C38	.018		BPD-015	DD-153	BYA6S2	CCD-203	GP120	10TS-S15
C39	.0047 1KV		P1088N-.0047	DD-472	PKM16D47	16DP-1-472	GEM-10247	10PS-D47
C40	.0047		SI 4700	D6-472	LA10D47-C4	CCD-472	GP247	5GA-D47
C41	.0047		SI 4700	D6-472	LA10D47-C4	CCD-472	GP247	5GA-D47
C42	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	B-215	10TS-D15
C43	.0039		BPD-004	DD-392	LA10D39-C4	CCD-392	GP239	5GA-D39
C44	.0039 100V 10%		BE6D39		DPMS6D39	6DP-1-392	GEM-624	6PS-D39
C45	68 500V 10%			CPR-68J	CD10F680J	DM-15-680K	MCB230	MS-468
C46	390 500V 5%			CPR-390J	CD15F391K	DM-15-391J	MCE243	MS-339
C47	.01 100V			DD-103	WMF1S1	6DP-2-103	GEM-411	2TM-S10
C48	470 10%		P288N-.01	D6-471	JB8T47	CCD-471	GP347	5GA-T47
C49	.0033	(.0022) †	SI-470	D6-332	LA10D33-C4	CCD-332	GP233	5GA-D33
C50	.018		BPD-015	DD-153	BYA6S2	CCD-203	GP120	10TS-S15
C51	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C52	.022 600V 10%		BE6S22		WMF6S22	6DP-2-223	GEM-6122	6PS-S22
C53	100 5KV 5%	#30-1246-20		DD60-101				
C54	.005		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C55	.0015 900V		BPD-0015	DD16-153	LA10D15-C4	CCD-152	GP215	
C56	.022 600V		P688N-.022		WMF6S22	6DP-2-223	GEM-6122	6PS-S22
C57	1500		SI 1000	D6-152	LA10D15-C4	CCD-152	B-215	5HK-D15

† Alternate Value
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			PHILCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	1meg	33-5605-6	F2-1meg, SPU304, KR-8 or (BPL-70)	C47S-1meg-Z FS-3	B13-137, SK7 or (PPQ13-137, SK7) or (BU1, CF26, SS10, K)*	PP16A
R2A B R3A	Contrast Brightness Horiz. Hold	50K 2W 250K 60K	33-5604-32				
			33-5604-33	F1-75K, R1-200K, FFS012, RFS108	P-75K, R-200K-S, FP-013, FR-109	† QJ-1721	■ CUE4478
R4A B C	Vert. Linearity Height Width	3meg 1.5meg 750K	33-5600-8				

† "CONCENTRIKIT" Equivalent: K-15 Kit with Base Elements and Shafts: B11-125, P17-024 (Panel),
"SNAPTROL" Equivalent: BU4, CF54, CR9, SF3, SR6, DC1.
■ "STA-LOC" Equivalent: FA753L, RU25L, OF812, IS1500

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R5 R27 R66	2200Ω 3W 4700Ω 5W V.D.R. †	PW5-4700	3G-2200 5W-SQ-4700	#33-1363-96 #33-1363-94 #33-1373-10	R79 R83 R87	V.D.R. † 11K 3W 5.6Ω	FR 5.6	3G-11K F 5.6	#33-1373-7 #33-1363-92

† Voltage Dependent Resistor

Philco Part Number

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		PHILCO PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	RF Choke (10 turns)	32-4652-87					
L2	47.25MC Trap	32-4652-78					
L3	47.25MC Trap	32-4652-78					
L4	41.25MC Trap	32-4652-80					
L5	1st Video IF	32-4652-79					
L6	2nd Video IF	32-4686-34					
L7	3rd Video IF, Pri.	32-4652-78					
L8	3rd Video IF, Sec.	32-4652-79					
L9	RF Choke (22uh)	32-4674-1	TV-192	72F225AP	RTC-8584	TA311	
L10	RF Choke (3uh)	32-4645-44	BC-564	74F336AP	RTC-8518	TB294	
L11	Peaking (330uh)	32-4762-10	BC-675	6132	RTC-8577	T349	
L12	Sound Takeoff - 4.5MC Trap	32-4688-10	TV-158	7102-P	RTC-9306	TA602	▲ Add 4.7mmf capacitor externally.
L13	Peaking (330uh)	32-4762-10	BC-675	6132	RTC-8577	T349	
L14	Peaking (330uh)	32-4762-10	BC-675	6132	RTC-8577	T349	
L15	Sound IF Interstage	32-4745-5	TV-157	8270-PC	RTC-9306	T255	
L16	Quadrature	32-4805-1		7121-P		TB292	
L17	RF Choke (9uh)	32-4112-62	BC-568	4611	RTC-8521	T860	
L18	RF Choke (9uh)	32-4112-62	BC-568	4611	RTC-8521	T860	

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		PHILCO PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
L19	Horiz. Stabilizer	32-4754-3	TV-250	6342-P			T183	

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	PHILCO PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L20	.33 ADC	23.6Ω	.46 Hy.	32-10010-2	C-4084 ①	C-2343	26C77	C-34X	① Drill new mounting hole(s).

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PHILCO PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC ④ 1.5A	90VAC ④ .33A DC	6.3VAC ④ 8.5A	32-10011-2					

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		PHILCO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	Vert. Output	32-10012-4					
T3	Yoke (Horiz. 25.5MH) 114° (Vert. 26MH)	76-12744-2					
T4	Horiz. Output	32-10002-5					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	PHILCO PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	4300Ω	3-4Ω	32-8747-7 (32-8747-1)	A-3028	A-3309	24S48	S-14 Z ①	① Drill new mounting hole(s).

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		PHILCO PART No.	QUAM PART No.	
SP1	3" x 5" PM 8-8Ω	36-1689-12	35A0526.4	
SP2	3" x 5" PM 6-8Ω	36-1689-12	35A0526.4	
	3" x 5" PM 6-8Ω	36-1689-11 ①	35A0526.4	① Used in Models M3822GD, UM3822GD.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	PHILCO PART No.	REPLACEMENT DATA
K1	Vertical Retrace Supp.	15K, 68K, .0047mfd, .01mfd	30-6024-10	
K2	Vertical Integrator	8200Ω, 10K, 90K, 150mmf, .004mfd, .005mfd	30-6030-12	
K3	Horizontal Phase Comp.	82K, 150K, 680K, 1.2meg, 82mmf, 220mmf, 0001mfd, .047mfd	30-8035-2	Centralab PC-409

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			PHILCO PART No.	LITTELFUSE PART No.	BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER
M1	1½"	#26 fuse wire				

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M2	VHF Tuner	TT-127B	
	VHF Tuner	TT-136A	
	VHF Tuner	TT-137A	
M3	Antenna	76-12763-2	JFD REPLACEMENT TA-438 - 2 used
M4	Diode	34-8022-6	Video Detector (1N60C)
M5	Dual Diode	34-8037-1	Horizontal AFC

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

PART NAME	PART NO.	MODELS									
		M3822GD	UM3822GD	M3824BK	UM3824BK	M3824WH	UM3824WH	M3826CH	UM3826CH	M3826WA	UM3826WA
Safety Glass	76-12742-1	X	X	X	X	X	X	X	X	X	X
Knob, VHF Channel Selector	424-8632	X	X			X	X	X	X		
Knob, VHF Channel Selector	424-8633			X	X					X	X
Knob, VHF Fine Tune	28-14310-6	X	X			X	X	X	X		
Knob, VHF Fine Tune	28-14310-5			X	X					X	X
Knob, UHF Channel Selector	424-8476	X	X								
Knob, UHF Channel Selector	424-8483			X	X					X	X
Knob, UHF Channel Selector	424-8485			X	X					X	X
Knob, UHF Fine Tune	424-8477	X	X	X	X	X	X	X	X	X	X
Knob, On-Off, Volume	424-8480			X	X					X	X
Knob, On-Off, Volume	424-8482	X	X			X	X	X	X		
Knob, Contrast, Horiz.	424-8486	X	X	X	X	X	X	X	X	X	X
Knob, Brightness, Vert.	424-8487	X	X	X	X	X	X	X	X	X	X
Cabinet Front	27-10395-16	X	X								
Cabinet Front	27-10395-17			X	X						
Cabinet Front	27-10395-18							X	X		
Cabinet Front	27-10395-19									X	X
Cabinet Rear	27-10382-11					X	X				
Cabinet Rear	27-10382-13	X	X								
Cabinet Rear	27-10382-14			X	X					X	X
Cabinet Rear	27-10382-15							X	X		

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (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
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
300Ω Tuner Input Lead	Use BELDEN No. 8225
300Ω Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8484 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor