

CABINET-REAR VIEW

## HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV station. Set all controls for normal operation. Connect a jumper across the Horizontal Stabilizer Coil (L18). Adjust the Horizontal Hold Control (R3C) to obtain one picture. It may not be stable. Remove the jumper and adjust the Horizontal Stabilizer Coil Slug (B1)

until the picture is in proper sync.

Adjust the Width control (R4) until the picture is just wider than necessary to fill the screen.

## DISASSEMBLY INSTRUCTIONS

### CHASSIS REMOVAL

1. Remove all knobs and cabinet back held by 8 screws. Disconnect antenna leads. Place cabinet face down on a soft protective surface.
2. Remove 10 screws holding tuner and control assemblies. Remove 2 screws holding remote assembly.
3. Remove 4 chassis bolts and speaker leads. Unplug picture tube,

and high voltage lead. Remove yoke clamp and 1 screw from right chassis bracket. Remove chassis.

### PICTURE TUBE REMOVAL

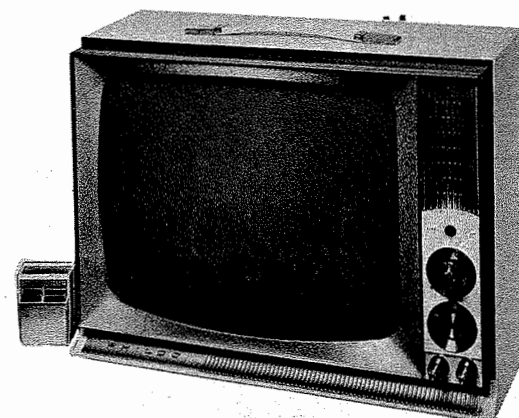
1. Follow "Chassis Removal" instructions.
2. Remove bolt on retainer on picture tube, and remove picture tube.

SET 672 FOLDER 2

PHILCO CHASSIS  
14J25, 14J25R, 14J25U

PHOTOFACT® Folder

with CIRCUITRACE™



MODEL M3506RWH

## IMPORTANT FILING NOTICE

Some models covered by this PHOTOFACT Folder employ chassis in addition to the TV chassis. PHOTOFACT Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

## INDEX

Remote Control RC-68D . . . SET 672, FOLDER 2-A

## CAUTION

ONE SIDE OF AC LINE CONNECTED TO CHASSIS

TRADE NAME	PHILCO	Models	Chassis	Remote Chassis
		M3500BE, M3504BK, WH, M3508WA, M3509GD . . . . .	14J25	
		M3506RWH . . . . .	14J25R	RC-68D
		UM3500BE, UM3504BK, WH, UM3508WA, UM3509GD . . . . .	14J25U	
MANUFACTURER	Philco Corp., A Subsidiary of Ford Motor Co., Tioga & "C" Streets, Philadelphia, Pennsylvania			
TYPE SET	Television Receiver with Remote Control Receiver used in some models			
TUBES	VHF - Fourteen, UHF - Fifteen			
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles			
RATING	110 Watts, 1.2 Amp. @ 117 Volts AC (Includes Remote Control)			
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)			

## 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 5.6Ω fusible resistor is used for low voltage power supply protection. (For location, see "Chassis - Top View".)

### 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.

### SYNC STABILITY

Sync stability may be varied by means of a Noise Adjust Control. (See "Tube Placement Chart" for location.)

### HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

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

### 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.

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.  
MA422

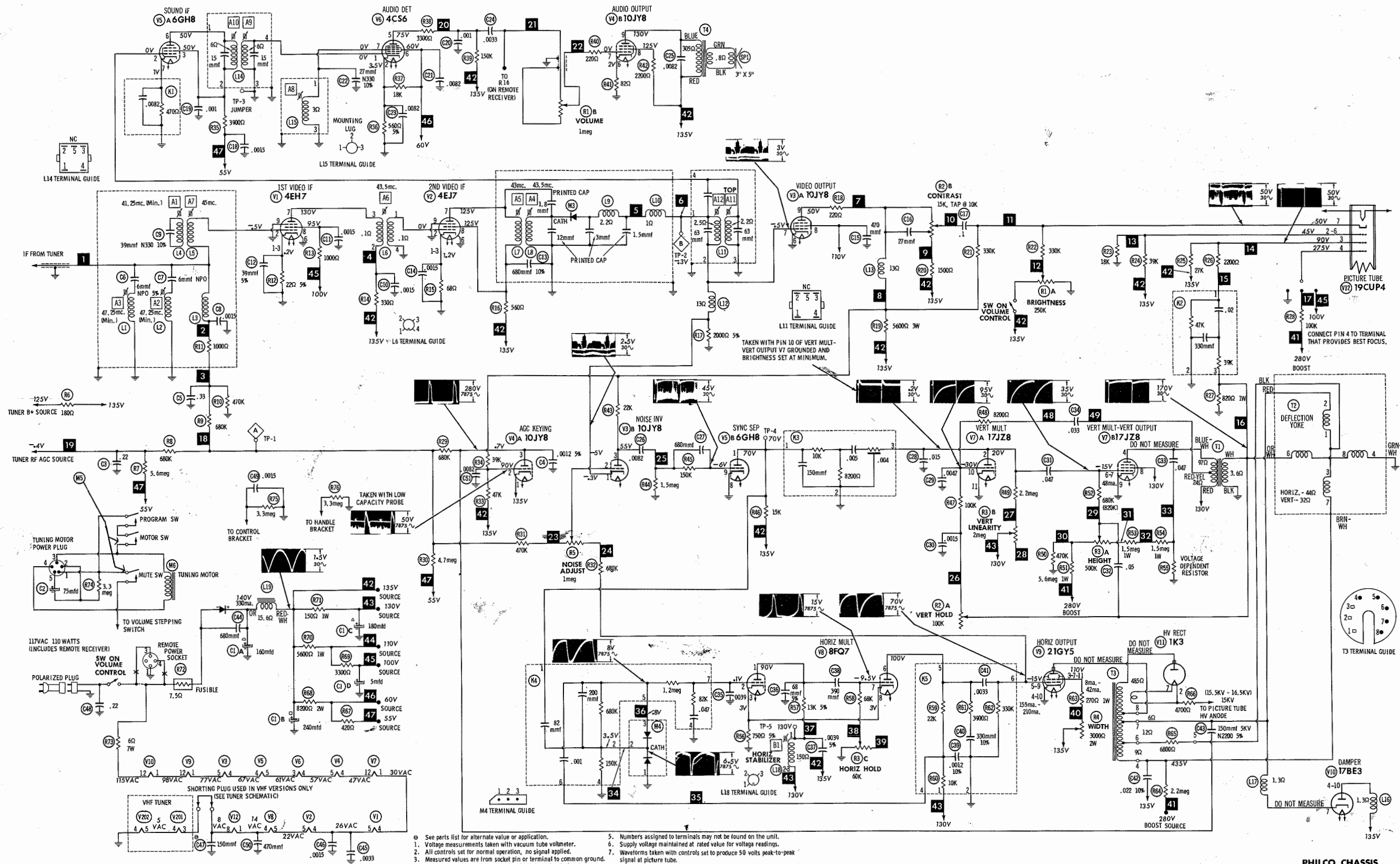
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DATE 1-64

SET 672 FOLDER 2

PHILCO CHASSIS  
14J25, 14J25R, 14J25U

SET 672 FOLDER 2



PHILCO CHASSIS  
14J25, 14J25R, 14J25U

FOLDER 2

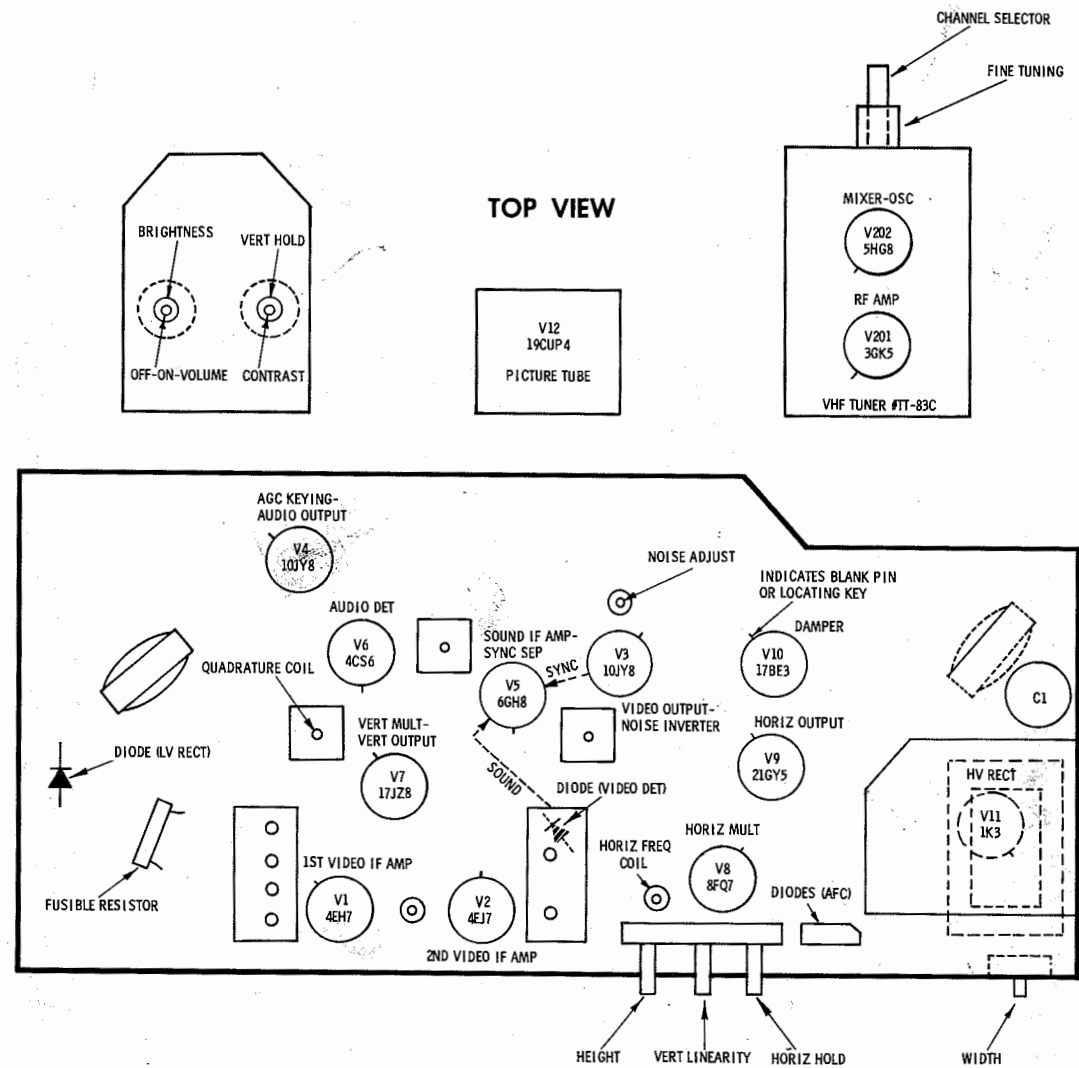
RESISTANCE MEASUREMENTS

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	TOP CAP
V1	4EH7	22Ω	471K	22Ω	9Ω	8Ω	0Ω	† 350Ω	† 10K	0Ω				
V2	4EJ7	68Ω	.1Ω	68Ω	8Ω	7Ω	0Ω	† 575Ω	† 575Ω	0Ω				
V3	10JY8	● 2000Ω	1meg	† 27K	20Ω	22Ω	0Ω	● 2000Ω	† 5600Ω	† 4500Ω				
V4	10JY8	† 15.6Ω	† 23K	1.4meg	14Ω	17Ω	82Ω	28K	† 2200Ω	† 320Ω				
V5	6GH8	# † 11K	2.2Ω	† 12K	20Ω	18Ω	† 12K	470Ω	0Ω	1.6meg				
V6	4CS6	6Ω	560Ω	18Ω	17Ω	† 153K	† 8200Ω	3Ω						
V7	17JZ8	9Ω	† 3meg	NC	† 280Ω	NC	1.5meg	1.5meg	† 165Ω	0Ω	140K	0Ω	14Ω	
V8	8FQ7	† 13K	1.9meg	750Ω	4Ω	7Ω	† 32K	120K	750Ω	NC				
V9	21GY5	22Ω	NC	† 1950Ω	0Ω	330K	† 1950Ω	† 1950Ω	† 1950Ω	NC	0Ω	† 1950Ω	26Ω	† 7.3Ω
V10	17BE3	26Ω	26Ω	26Ω	† 15Ω	NC	NC	8.2meg	NC	NC	† 15Ω	NC	30Ω	
V11	1K3			PINS 1 THRU 8	HAVE INFINITE RESISTANCE									† 490Ω
V12	19CUP4	4Ω	NC	# † 19K	† 100K	NC	# 14K	# 185K	3Ω					
V201	3GK5	0Ω	1.3meg	3Ω	2Ω	† 1400Ω	0Ω	0Ω						
V202	5HG8	0Ω	220K	0Ω	0Ω	2Ω	10K	† 10K	† 860Ω	† 4200Ω				
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	TOP CAP

# THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
● READING DEPENDS ON POLARITY OF METER CONNECTIONS.  
† MEASURED FROM OUTPUT OF RECTIFIER.

NC NO CONNECTION

TUBE PLACEMENT CHART



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.

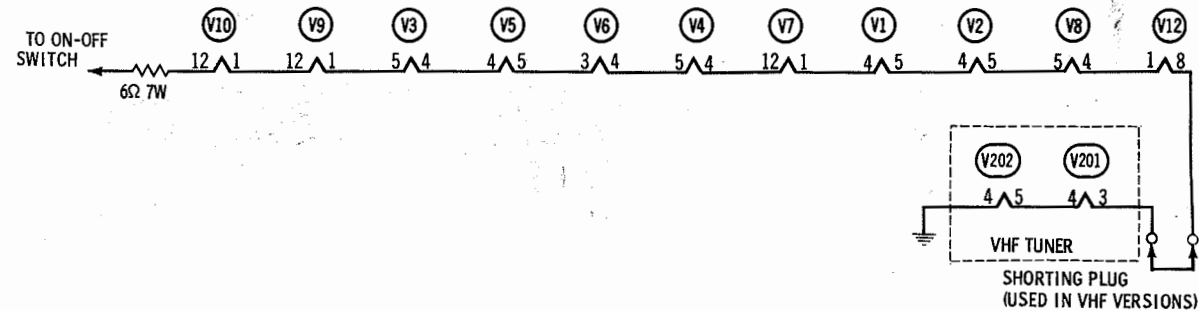
**POWER SUPPLY FAILURE**  
No raster, no sound X1, R72 (Fusible Resistor)

**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  
Narrow picture V8, V9, V10 X1  
Vert. off freq. V7  
Horiz. off freq. V8, V9, M4 (Horiz. AFC Diode)

**LOSS OF PICTURE OR SOUND**  
No pic, no sound, has raster V1, V2, V3, M3 (Video Det.)  
No pic, no sound, has snow V201, V202, V1  
No pic, has sound, has raster V3, V12  
Has pic, no sound V3, V4, V5, V6  
Overloaded picture V4

**SYNC FAILURE**  
No vert. sync V3, V5  
No horiz. sync V3, V5  
No vert. or horiz. sync V3, V5

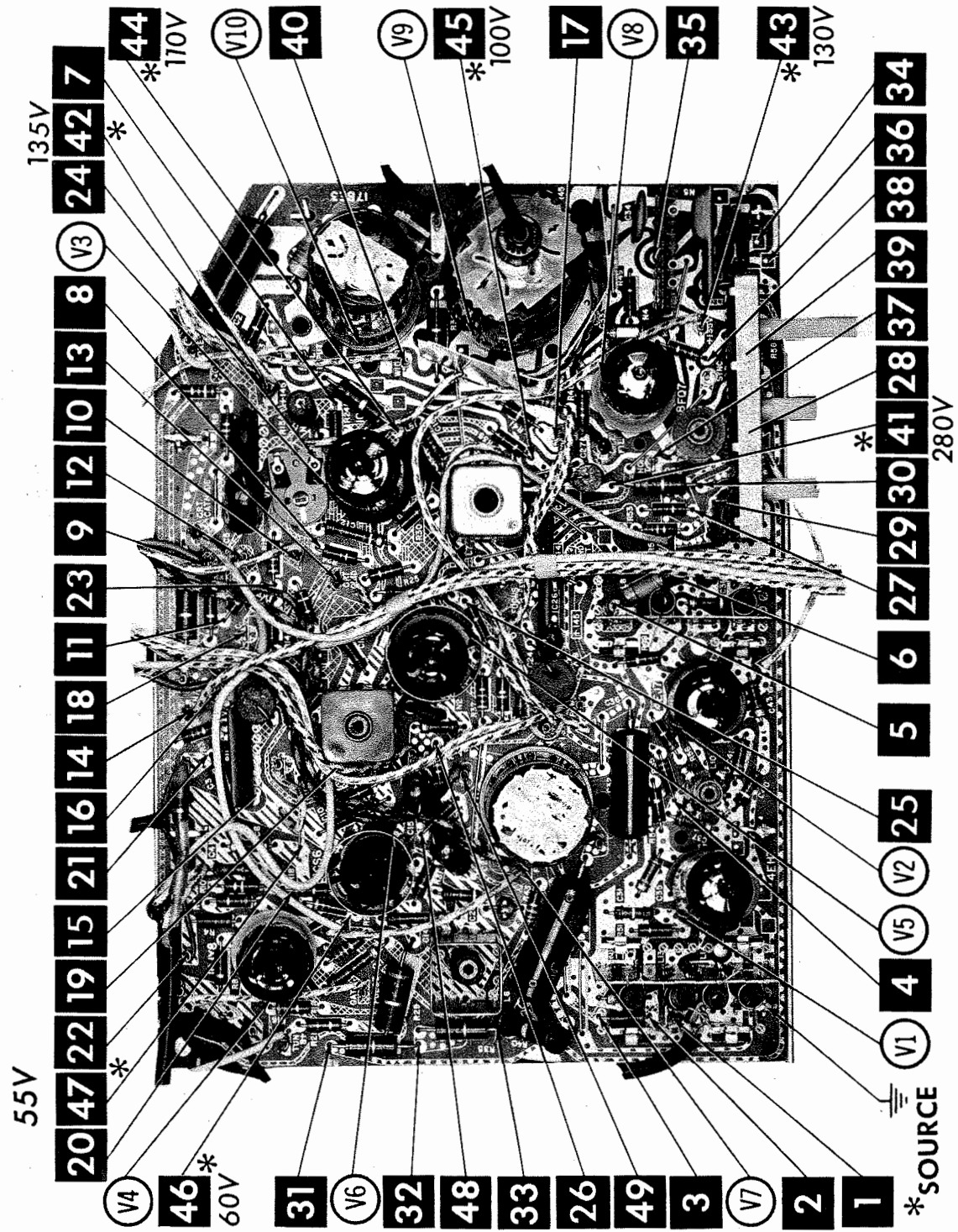
This receiver employs tubes used in a series filament network, an open filament in any tube will cause the set to be inoperative. (See circuit below.)



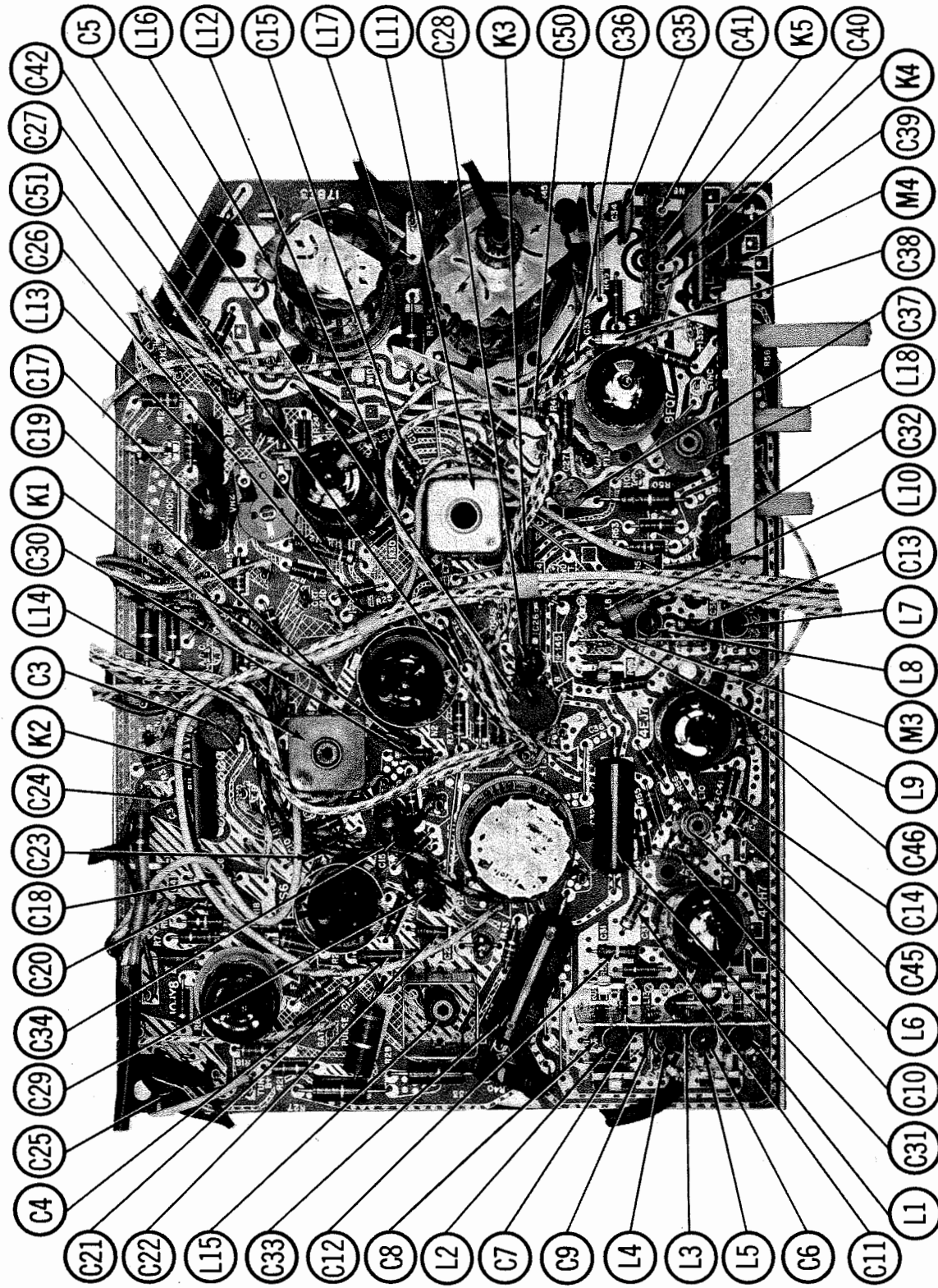
SET 672 FOLDER 2

PHILCO CHASSIS  
14J25, 14J25R, 14J25U

FOLDER 2

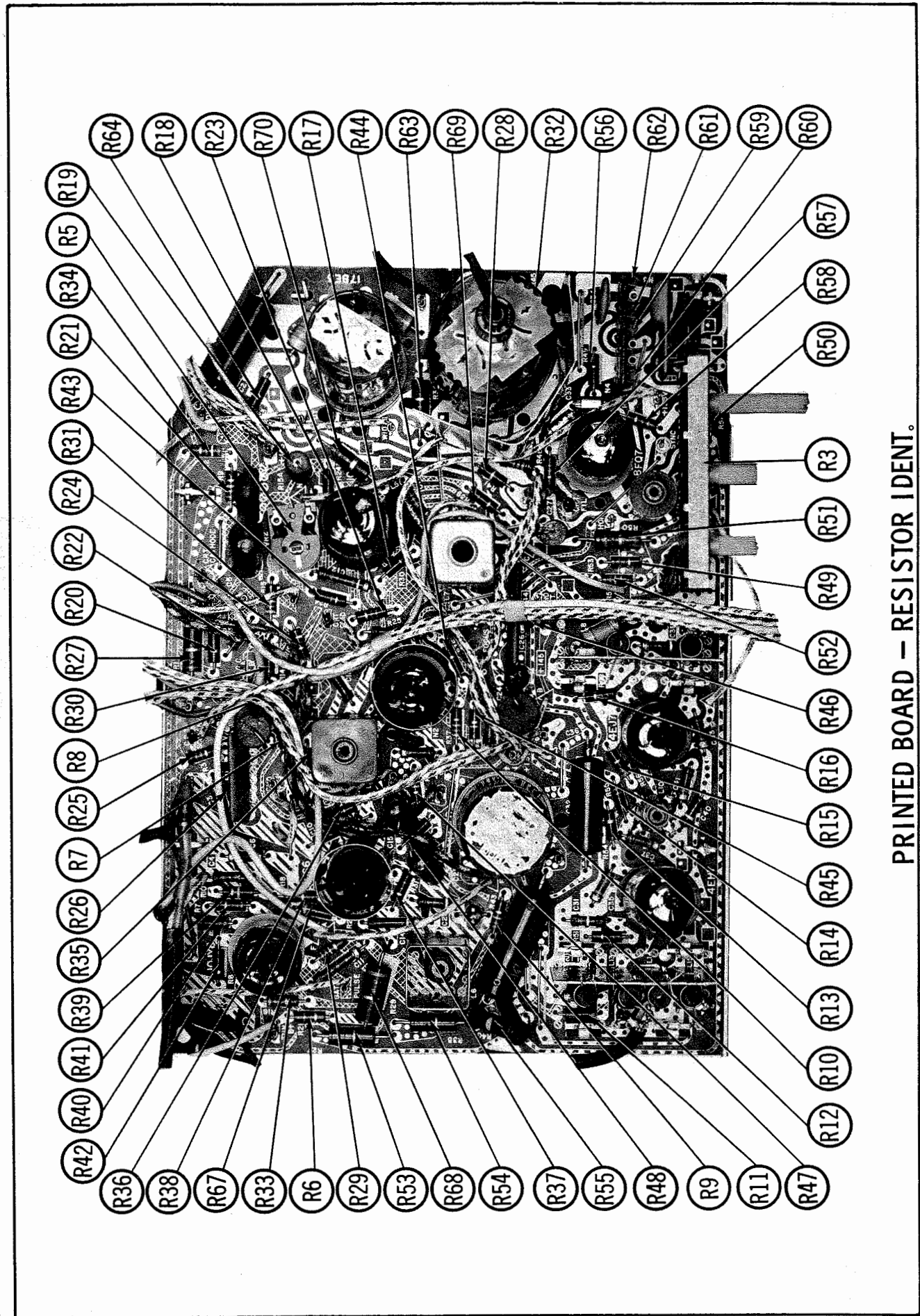


PRINTED BOARD



PRINTED BOARD — CAPACITOR, INDUCTOR IDENT.

PHILCO CHASSIS  
14J25, 14J25R, 14J25U



# 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: GENERAL CEMENT #8606, 8606L, 8869 ... 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 A) 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.

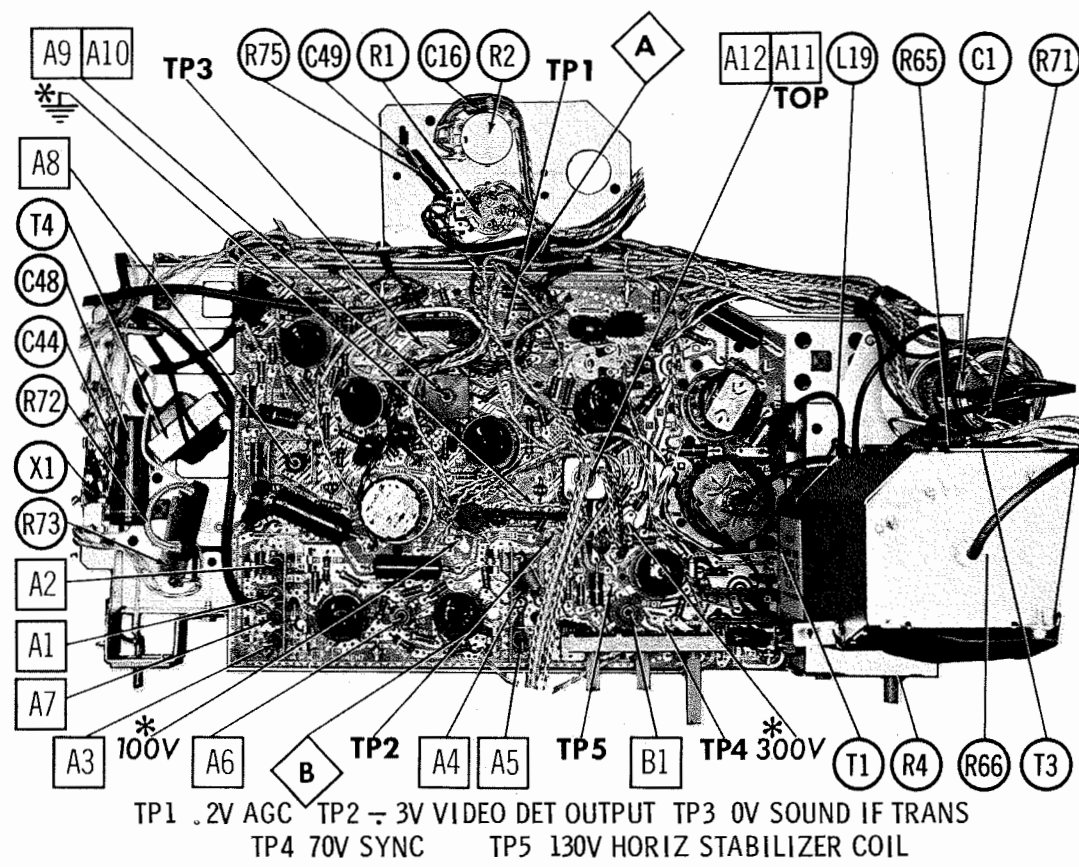
INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1. Connect DC probe of a VTVM thru a 47K resistor to point B. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC 47.25MC	A1 A2, A3	Adjust for MINIMUM. 44.0
2. Connect DC probe of a VTVM thru a 47K resistor to point B. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		43.5MC 43.0MC 43.5MC 45.0MC 42.7MC	A4 A4 A6 A7 Mixer Plate Coil	Adjust for maximum. 45.75 50% 42.5 41.25 FIG. 1
3. Connect vertical input of a scope to point B. Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.5MC 44.0MC 45.75MC 47.25MC		Check for maximum gain and symmetry of response with markers as shown in Figure 1. In order to obtain a proper response, it may be necessary to slightly retouch A4, A5, A6, A7 and Mixer Plate Coil.

## 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 A8, A9, A10 and A11.

## 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.

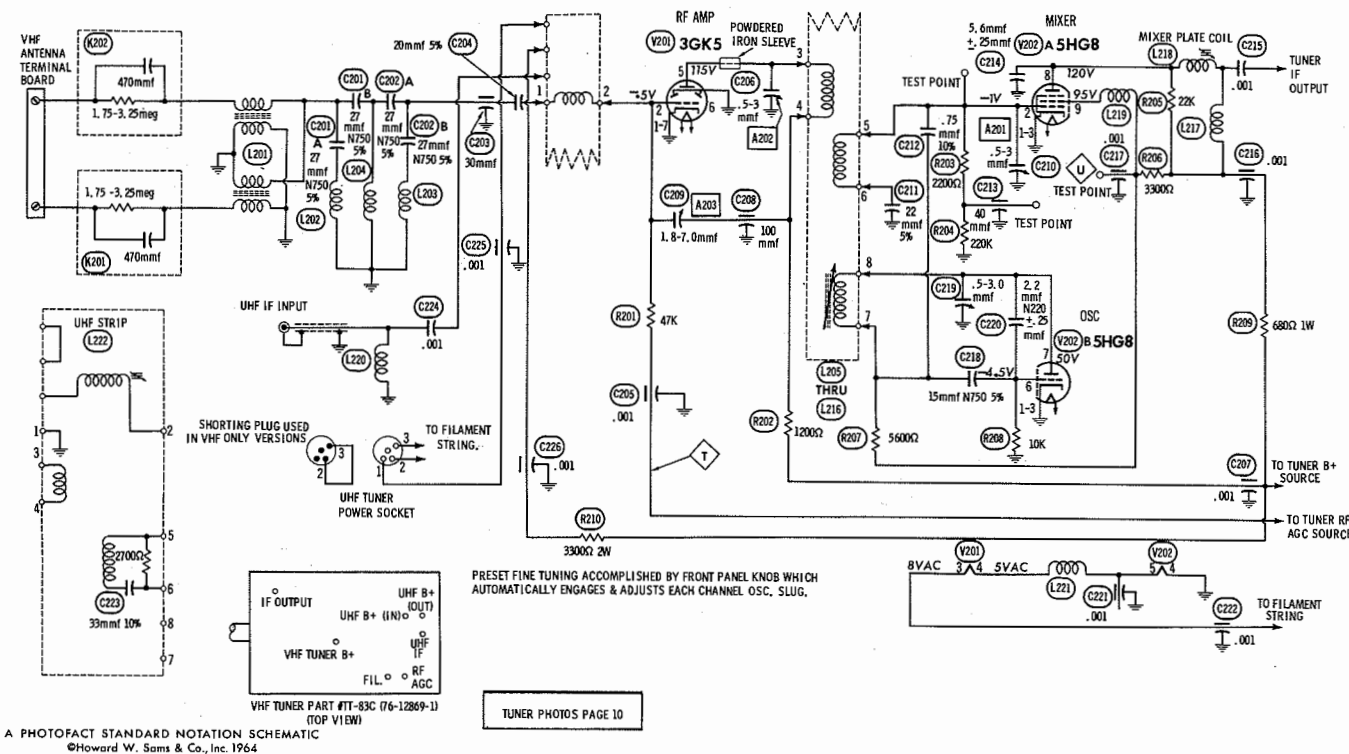


## CHASSIS—TOP VIEW

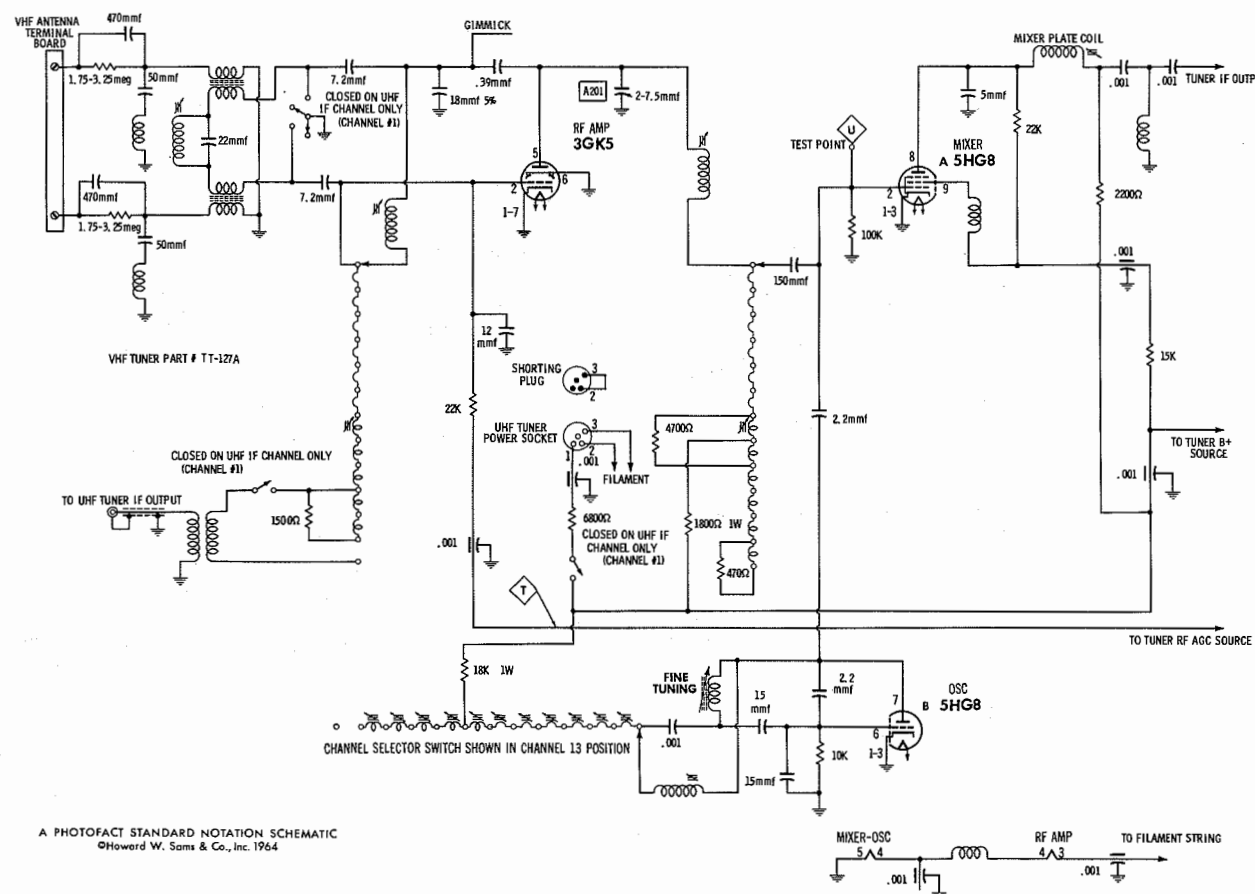
SET 672 FOLDER 2

PHILCO CHASSIS  
14J25, 14J25R, 14J25U

FOLDER 2



## 13 POSITION TURRET-TYPE VHF TUNER TT-83C



## 13 POSITION TURRET-TYPE VHF TUNER TT-127A

## VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT #9087, 8290, 8868, WALSCO #2525, 2528, 2587

### OSCILLATOR ALIGNMENT TUNER TT83C

The oscillator on each channel is preset by means of the fine tuning. Adjust the fine tuning for best picture and sound on each active channel. If any channel cannot be tuned in properly with the fine tuning, adjust the overall oscillator adjustment and recheck all channels.

### OSCILLATOR ALIGNMENT TUNER TT127A

Set fine tuning to the center of its range. Starting with highest channel in area, adjust the appropriate oscillator screw for best picture and sound.

### 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  $\Phi$ . 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 $\Omega$ in each lead.	213MC	211. 25MC 215. 75MC	13	Vert. Input to point $\Phi$ , low side to ground.	A201, A202	TUNER TT-83C: Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193. 25MC 197. 75MC	10	Across Video Det. load resistor.	A203	TUNER TT-83C: Increase bias to -15 volts and adjust for MINIMUM amplitude of response curve.
3. "	207MC	205. 25MC 209. 75MC	12			TUNER TT-83C: Check response on all channels and make compromise adjustments of A201 and A202 if required.
1. "	213MC	211. 25MC 215. 75MC	13	Vert. Input to point $\Phi$ , low side to ground.	A201	TUNER TT-127A: Decrease bias for response similar to Fig. 201. If necessary, expand or compress coils.
2. "	195MC	193. 25MC 197. 75MC	10	Across Video Det. load resistor.	Gimmick	TUNER TT-127A: Increase bias to -15 volts and adjust for MINIMUM amplitude of response curve.
3. "	207MC	205. 25MC 209. 75MC	12	Vert. Input to point $\Phi$ , low side to ground.		TUNER TT-127A: Check response on all channels and make compromise adjustments of A201 if required. If necessary, expand or compress coils.
	201MC	199. 25MC 203. 75MC	11			
	189MC	187. 25MC 191. 75MC	9			
	183MC	181. 25MC 185. 75MC	8			
	177MC	175. 25MC 179. 75MC	7			
	85MC	83. 25MC 87. 75MC	6			
	79MC	77. 25MC 81. 75MC	5			
	69MC	67. 25MC 71. 75MC	4			
	63MC	61. 25MC 65. 75MC	3			
	57MC	55. 25MC 59. 75MC	2			

Tune in a UHF Station and adjust UHF IF Input coil for best picture and sound. -- Tuner TT-83C

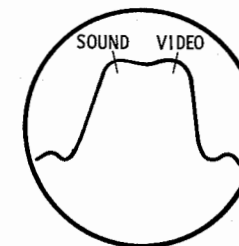


FIG. 201

PHILCO CHASSIS  
14J25, 14J25R, 14J25U

FOLDER 2



## 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.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C40	330 10%	Note 1						
C41	.0033		SI 3300	D6-331	LA10T33-C4	CCD-331	GP333	5GA-T33
C42	.022 600V 10%		BF6822	D6-332	LA10D33-C4	CCD-332	B-233	5HK-D33
C43	150 5KV N2200 5%	#30-1246-15			PM6S22	6DP-2-253	PVC6122	6TM-S22
C44	680		BPD-00066	DD-681	BYA10T68	CCD-681	B-268	10TS-T68
C45	.0033		SI 3300	D6-332	LA10D33-C4	CCD-332	B-233	5HK-D33
C46	.0015		SI 1500	D6-152	LA10D15-C4	CCD-152	B-215	5HK-D15
C47	150	Note 2	BPD-00015	DD-151	LA10T15-33	CCD-151	B-315	5GA-T15
C48	.22 600V		P688N-22	DD-152	PM6P22	6DP-5-224	GEM-6022	6TM-P22
C49	.0015 600V		P688N-0015	DD-152	PM6D15	6DP-1-152	GEM-6215	6TM-D15
C50	470		SI 470	D6-471	LA10T47-C4	CCD-471	B-347	5GA-T47
C51	.0082		DD-	DD-822		CCD-822	B-282	

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer. # Philco Part Number  
Note 1. Part of Component Combination K5. Note 2. On Remote Chassis only.

## 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.
R1A	Brightness Volume, Switch	250K 1meg	33-5804-24	F1-250K R2-1meg FFS013, RFS105, KR-2	P-250K-8 R-1meg-Z CP-013, CSR-105, SWE-20	† QJ-1626	▲ UE4451-S
R2A	Vert. Hold Contrast	100K 15K, 10K Tap	33-5804-22			▲ QJ-1625	
R3A	Height	500K	33-5595-8				
R4	Vert. Linearity	2meg					
R5	Horiz. Hold Width	80K 3000Ω (2W) 1meg	33-5591-27				
R5	Noise Adjust		33-5807-5				

▲ "CONCENTRIKIT" Equivalent: K15 Kit with Base Elements and Shafts: B11-28, P17-024 (Panel) B13-115X, R16-106 (Rear)  
† "CONCENTRIKIT" Equivalent: K15 Kit with base Elements and Shafts: B11-130, P17-024 (Panel) B13-137, R16-106 (Rear)  
▲ "SNAPTROL" Equivalent: BU4, CF15, SF3, CR21, SR101 78-2 (Switch)

▲ "STA-LOC" Equivalent: FA254L, RU18A, OS812A, IS1312, US42

## 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
R19	5800Ω 3W	PW3-5600	3G-5600		R72	7.5Ω (Fuse)	FR-7.5	F 7.5	
R55	V.D.R. †			#33-1373-6	R73	6Ω 7W	PW7-6	TW-SQ-6	

† 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	47.25MC Trap	32-4652-78 ①					① 25 Turns.
L2	47.25MC Trap	32-4652-78 ①					
L3	RF Choke (6 Turns)	32-4652-68					
L4	41.25MC Trap	32-4652-80 ②					② 7 Turns.
L5	1st Video IF	32-4652-79 ③					③ 11 Turns.
L6	2nd Video IF	32-4685-31		7513-P		T696	
L7	3rd Video IF, Pri.	32-4652-78 ①					
L8	3rd Video IF, Sec.	32-4652-79 ③					
L9	RF Choke (22uh)	32-4937-1	TV-192	72F225AP	RTC-8584	TA311	
L10	RF Choke (5uh)	32-4945-7	SW-630	74F336AP	RTC-8517	TB294	
L11	Sound Takeoff - 4.5MC Trap	32-4688-11	TV-157 *	6270-PC *	RTC-9306 *	TA803 *	* Add capacitor externally.
L12	Peaking (330uh)	32-4762-20	BC-875	72F334AP	RTC-8577	T349	
L13	Peaking (330uh)	32-4762-20	BC-875	72F334AP	RTC-8577	T349	
L14	Sound IF Interstage	32-4745-8	TV-157	8270-PC	RTC-9308	T255	
L15	Quadrature	32-4644-25		7121-P			
L16	RF Choke (9uh)	32-4112-62	BC-566	4611	RTC-8521	T860	
L17	RF Choke (9uh)	32-4112-62	BC-566	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.	
L18	Horiz. Stabilizer	32-4754-3		8335-G		HS-18		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.	
L19	.330 ADC	15.6Ω	.57 Hy.	32-8960-5	C-4084	C-2347	28C78	C-28X	

## TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		PHILCO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	Vert. Output	32-10038-2					
T2	Yoke (Horiz. 28MH) 114° (Vert. 77MH)	78-12842-2					
T3	Horiz. Output	32-10008-3					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA					NOTES
		PHILCO PART No.	Merit PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T4	4800Ω 3-4Ω	32-8747-6	A-3026	A-3309	24848	S-6X	

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		PHILCO PART No.	QUAM PART No.	
SP1	3" x 5" PM 3-4Ω	36-1688-15	35A05	

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	PHILCO PART No.	REPLACEMENT DATA
K1	Sound IF Cathode Filter	470Ω, .0082mfd	30-8031-22	
K2	Vert. Retrace Suppression	39K, 47K, 330mfd, .02mfd	30-8024-8	
K3	Vertical Integrator	8200Ω, 10K, 8200Ω, 150mfd, .004mfd, .005mfd	30-6030-12	
K4	Horiz. Phase Comp.	82K, 150K, 680K, 1.2meg, 82mfd, 200mfd, .001mfd, .047mfd	30-6035-2	Aerovox PA-766 Centralab PC-408 Sprague C-11
K5	Horiz. Oscillator Network	3900Ω, 10K, 22K, 330K, 330mfd, .0012mfd, .0033mfd	30-8551-2	

## MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M1	VHF Tuner	TT-89C (78-12889-1)	
	VHF Tuner	TT-127A (78-13064)	
	UHF Tuner	TT-138A (78-12715-10)	
M2	Antenna	426-8007	JFD REPLACEMENT TA-364
M3	Diode	34-8022-6	Video Detector
M4	Diode	34-8037-1	Horizontal AFC
M5	Switch	27-10472-2	Mute and Motor
M6	Motor (Remote)	41-2091-1	Model M3506RWH

## CABINETS &amp; CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Safety Glass	27-10625-1	Cabinet, Front, Model M3508WA	27-10612-10
Knob, Channel Selector, VHF	424-8560	Cabinet, Front, Model M3508GD	27-10612-11
Knob, Channel Selector, UHF	424-8560	Cabinet, Front, Model M3506RWH	27-10612-9
Knob, Fine Tuning, VHF	424-8566	Cabinet, Back, Model M3500BE	27-10613-2
Knob, Fine Tuning, UHF	424-8565	Cabinet, Back, Models M3504WH, BK	27-10613-1
Knob, On/Off, Contrast	424-8563	Cabinet, Back, Model M3508WA	27-10613-5
Knob, Brightness, Vertical	424-8562	Cabinet, Back, Model M3506GD	27-10613-1
Cabinet, Front, Model M3500BE	27-10612-7	Cabinet, Back, Model M3506RWH	27-10613-3
Cabinet, Front, Models M3504WH, BK	27-10612-8		

## 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) - 6 Conductor

## VHF TUNER PARTS LIST AND DESCRIPTION

TT- 83

## TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	3GE5	V202	Mixer - Osc.	5HG6

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201A	27 N750 5%			TCN-27			CN7-427	10TCU-Q27
C201B	27 N750 5%			TCN-27			CN7-427	10TCU-Q27
C202A	27 N750 5%			TCN-27			CN7-427	10TCU-Q27
C202B	27 N750 5%			TCN-27			CN7-427	10TCU-Q27
C203	30							
C204	20 5%	#76-12191-89		DTZ-20	C10Q2C			10TCC-Q20
C205	.001		EF-001	MFT-1000		CCF-102	CT260A	
C206	.5-3mmf		EF-001	820-3		CV-1	CT565	
C207	.001			MFT-1000		CCF-102	CT260A	
C208	100							
C209	1.8-7.0	#76-12481-88						
C210	5-3	#76-12481-88						
C211	22 5%			820-7		CV-1	CT565	
C212	.75 10%	#30-1221-19		820-3	C10Q22C		CNO-422	10TCC-Q22
C213	40	#76-12481-91		TCZ-22				
C214	5.6 ±.25mmf	#30-1251-39						
C215	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	10TCC-V56
C216	.001		EF-001	MFT-1000		CCF-102	CT260A	5HK-D10
C217	.001		EF-001	MFT-1000		CCF-102	CT260A	
C218	15 N750 5%			DTN-15	C10Q15U		CN7-415	10TCU-Q15
C219	.5-3.0			820-3		CV-1	CT565	
C220	2.2 N220 ±.25mmf	#76-12481-92						
C221	.001		EF-001	MFT-1000		CCF-102	CT260A	
C222	.001		EF-001	MFT-1000		CCF-102	CT260A	
C223	33 10%		NPO-DI 33	DTZ-33	C10Q33C	CCTO-330	CNO-433	10TCC-Q33
C224	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C225	.001		EF-001	MFT-1000		CCF-102	CT260A	
C226	.001		EF-001	MFT-1000		CCF-102	CT260A	

# Philco Part Number

## COILS (RF-IF)

ITEM No.	USE	PHILCO PART No.	NOTES
L201	Ant. Matching		
L202	RF Choke		
L203	RF Choke		
L204	RF Choke		
L205	Ant., Plate, Mixer, Osc.		Chan. 2, IF Strip
L206	"		Chan. 3, IF Strip
L207	"		Chan. 4, IF Strip
L208	"		Chan. 5, IF Strip
L209	"		Chan. 6, IF Strip
L210	"		Chan. 7, IF Strip
L211	"		Chan. 8, IF Strip
L212	Ant., Plate, Mixer, Osc.		Chan. 9, IF Strip
L213	"		Chan. 10, IF Strip
L214	"		Chan. 11, IF Strip
L215	"		Chan. 12, IF Strip
L216	"		Chan. 13, IF Strip
L217	VHF IF Output	76-12760-33	
L218	Mixer Plate	76-12760-31	
L219	RF Choke	76-12461-96	
L220	UHF IF Output		Part of UHF IF Strip
L221	Fil. Choke	76-12461-97	
L222	UHF IF Strip		

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	PHILCO PART No.	REPLACEMENT DATA
K201	Antenna Isolation	1.75-3.25meg, 470mfd	30-6040-1	Centralab RC-471 Sprague AC1-1
K202	Antenna Isolation	1.75-3.25meg, 470mfd	30-6040-1	Centralab RC-471 Sprague AC1-1

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.

RECEIVER

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C2	.1 50V		TTD-1	CK-104	H8		TA-010	TG-P10
C3	.47 50V				WMF1P47	1DP-4-474	PVC1047	2TM-P47
C4	.05 50V		TTD-05	CK-503	H5		TA-150	TG-S50
C5	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C6	.1 50V		TTD-1	CK-104	H6		TA-010	TG-P10
C7	680 5%			CPR-680J	CD19F68J	DM-19-68J	MCJ249	MS-368
C8	680 5%			CPR-680J	CD19F68J	DM-19-68J	MCJ249	MS-368
C9	.047 600V		P688N-047	DD-503	CUB6S47	6DP-3-473	GEM-6147	8TM-847

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	Input	32-4823-2					
L2	38KC Output	32-4823-1					
L3	40KC Output	32-4823-1					

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 @ .013A	12.5VAC @ .040A DC		32-10003-2					

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	PHILCO PART No.	REPLACEMENT DATA
K1	Volume Level Network	33K, 220K, .0015mfd, .0068mfd	30-6041-3	

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M1	Switch, Remote/Man	42-2075-15	
M2	Relay	42-4050-1	
M3	Relay	42-4052-2	Channel Selector and Sound Pilot
M4	Relay	42-4053-1	On/Off
	Printed Board	27-10472-2	Volume Level and Volume Stepping Switch and Time Delay Switch Assembly

WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid 22AWG)	Available
	8524 (Stranded 22AWG)	in
	8570 (Stranded 28AWG)	12 Colors

TRANSMITTER

ITEM	PART No.	ITEM	PART No.
Transmitter (Complete)	76-12243-5	Lever	28-13936-1
Cabinet Back	54-5947-3	Stud Lever	28-13218-1
Cabinet Front	54-5946-3	Pivot Arm and Stud	76-11898-1
Pushbutton (Left Hand)	28-13853-5	Striker	28-13220-1
Pushbutton (Right Hand)	28-13853-6	Spring (Arm Return)	28-13273-1
Overlay (Philco)	28-13953-2	Spring (Lever Return)	28-13274-1
Overlay (On-Off)	28-13952-1	Spring (Damping)	28-13309-1
Grille	28-13860-4	Plate Spring	28-13624-1
Rod (Tuning), 40KC	28-13223-2	Actuator Assembly	76-12765-1
Rod (Tuning), 38KC	28-13223-3		

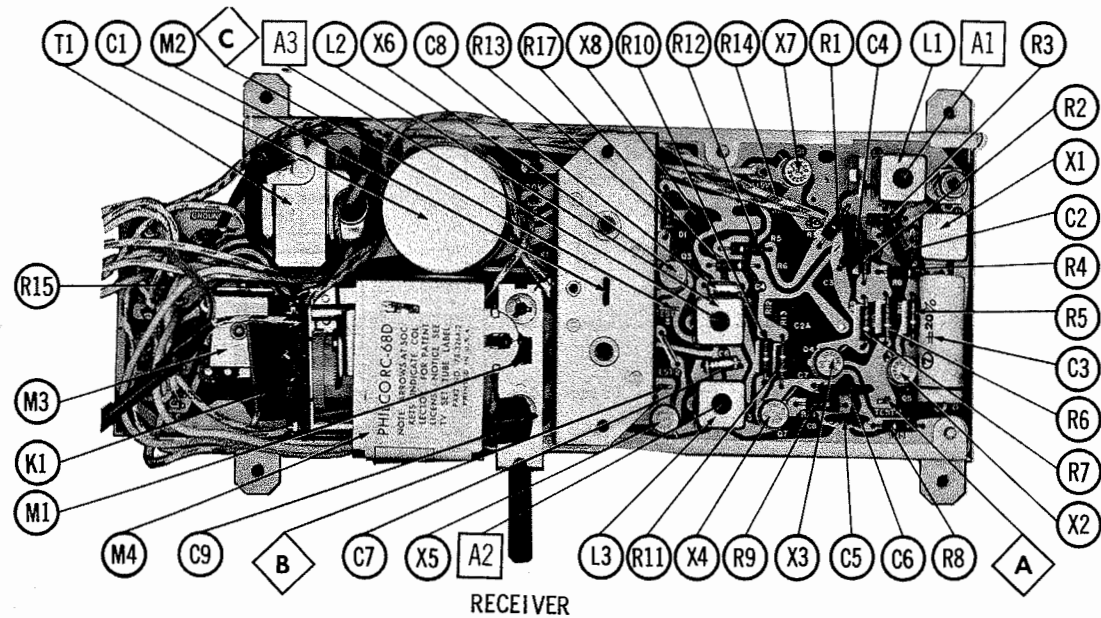
PHOTOFACT® Folder

with CIRCUITRACE™

PHILCO  
REMOTE CONTROL RC-68D

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 672 FOLDER 2. File this Folder with the TV Folder in the yellow filing jacket provided.



PHILCO  
REMOTE CONTROL RC-68D

TRADE NAME Philco Remote Control RC-68D  
MANUFACTURER Philco Corp., A Subsidiary of Ford Motor Co., Tioga & "C" Streets, Philadelphia, Pennsylvania  
TYPE SET Remote Control Receiver with Mechanical Transmitter  
TRANSISTOR Seven  
POWER SUPPLY 110-120 Volts AC, 60 Cycle RATING 1.5 Watts, .013 Amp. 117 Volts AC

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A1, A2, A3 .. GENERAL CEMENT #9440 .. WALSCO #2501 Connect an Audio Generator to a speaker and position the speaker approximately 3 inches in front of ceramic pickup.				
SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. 38KC 40KC	Any non-interfering channel	DC Probe to point A, common to chassis.	A1	Adjust for equal reading at both 38KC and 40KC.
2. 40KC	"	DC Probe to point B, common to chassis.	A2	Adjust for MINIMUM.
3. 38KC	"	DC Probe to point C, common to chassis.	A3	Adjust for MINIMUM.

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



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DATE 1 -64 SET 672 FOLDER 2-A