

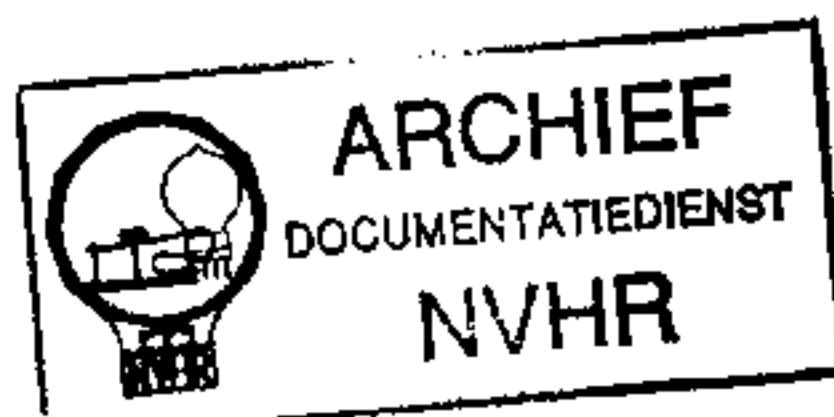
PHOTOFACT® Folder

with **CIRCUITRACE®**

**PHILCO MODELS
T-52-124, TC-57**

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



MODEL T-52-124

TRADE NAME	Philco Model T-52-124, TC-57B, TC-57CP		
MANUFACTURER	Philco Corp., Tioga & C Streets, Philadelphia, Pa.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver (Model TC-57 Series Are Clock Versions)		
POWER SUPPLY	6 Volts DC	RATING	8MA@6 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 — 1620KC		10MA@6 Volts DC(Signal, Normal Volume)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.

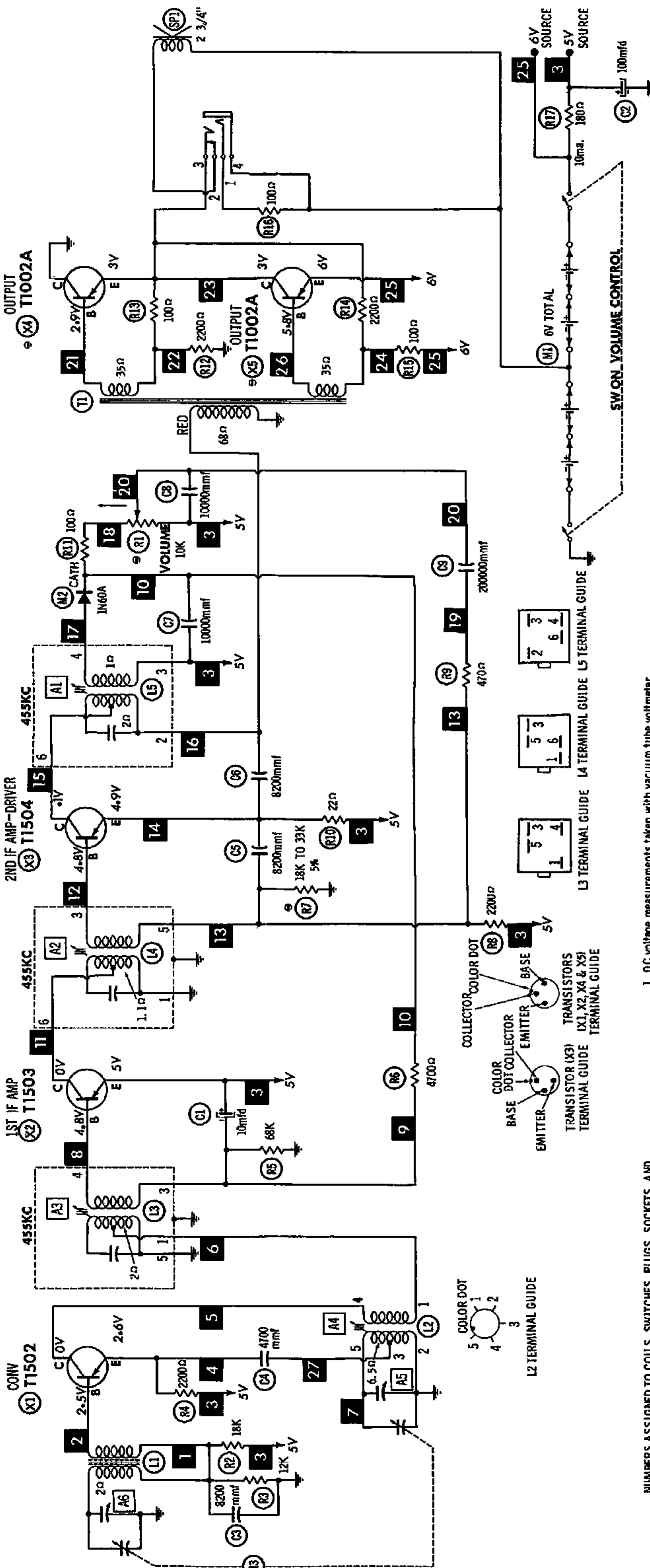
Suggested Alignment Tools: A1, A2, A3. . . . GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
 WALSCO #2515, 2531, 2532
 A4. GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440
 WALSCO #2526, 2543, 2544, 2545
 A5, A6. GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	High side thru .1mfd to Antenna stator lug of tuning gang. Low side to chassis.	455KC (400v Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	Loop	600KC	600KC	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1620KC	Tuning gang fully open.	"	A5	"
4.	"	1400KC	1400KC Signal.	"	A6	Adjust for maximum output. Repeat Steps 2, 3, and 4.

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 KF271

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NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

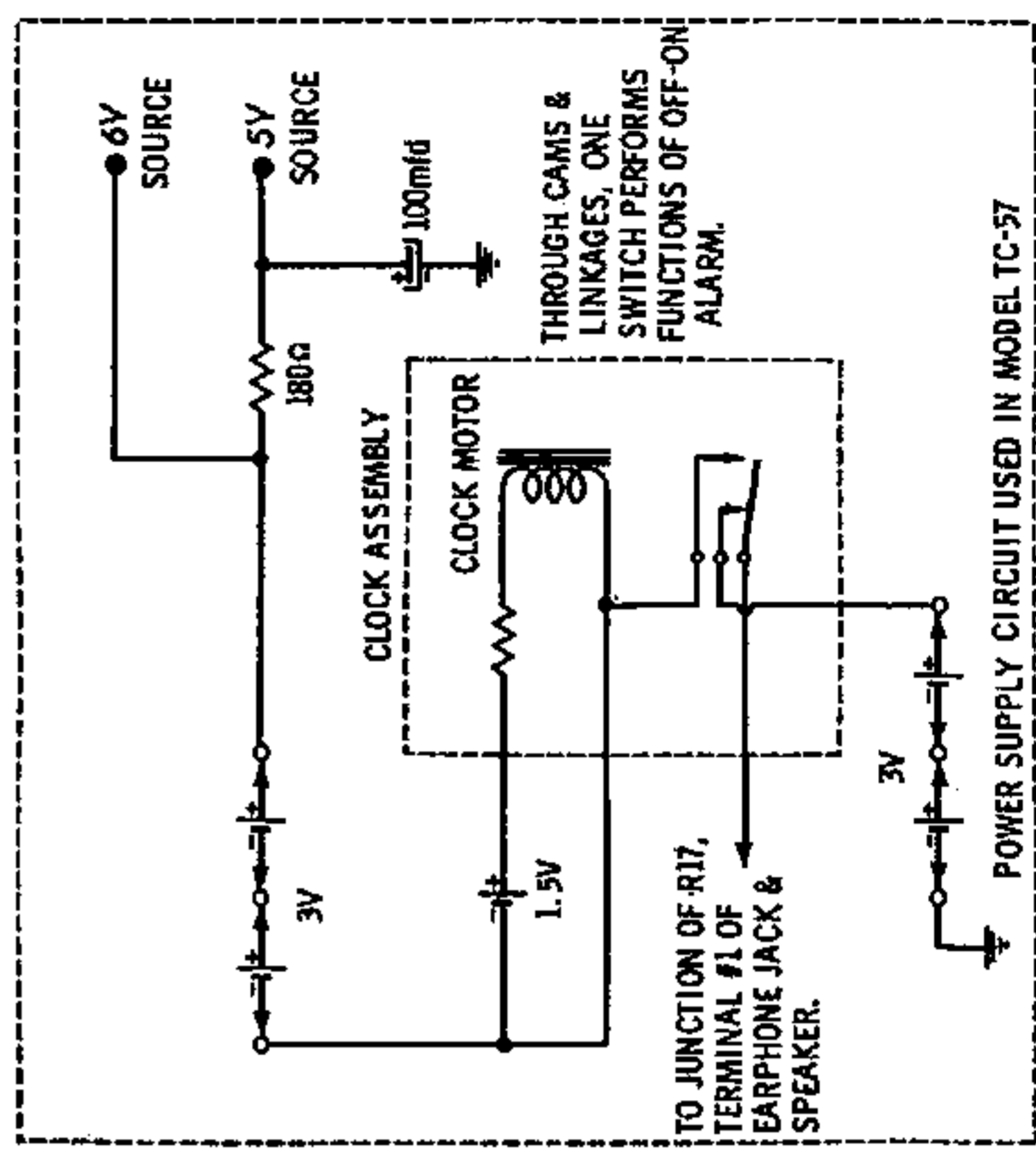
RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.



A PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITTRACE

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	T-1502	Converter				PNP PNP PNP PNP } Matched PNP } Pair
X2	T-1503	1st IF Amplifier				
X3	T-1504	2nd IF Amp. -Driver				
X4	T-1002A*	Output	2N270	2N632		
X5	T-1002A*	Output	2N270	2N632		

* Alternate Type T-1549.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	PHILCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	10	6	30-2591-9	PTT-6010	NLW10-6	TT6X10	ML10-6	TE-1087	
C2	100	6	30-2588-4	SRE6V100	NLW100-12	TT6X100	ML100-6	TE-1102	

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic 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.
C3	8200			DD-822		CCD-822	B-282	
C4	4700		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	10TS-D47
C5	8200			DD-822		CCD-822	B-282	
C6	8200			DD-822		CCD-822	B-282	
C7	10000		BPD-01	DD-103	H-05S1	CCD-103	B-110	5HK-S10
C8	10000		BPD-01	DD-103	H-05S1	CCD-103	B-110	5HK-S10
C9	200000	#30-1279-3		UK10-204				

Philco Part Number.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	PHILCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	10K	1/4	33-5583-17					Volume & Switch (Note 1)

Note 1, Model TC-57 uses Part #33-5583-19 (Less Switch).

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2	18K				R10	22Ω			
R3	12K				R11	100Ω			
R4	2200Ω				R12	2200Ω			
R5	68K				R13	100Ω			
R6	4700Ω				R14	2200Ω			
R7				Note 1	R15	100Ω			
R8	2200Ω				R16	100Ω			
R9	470Ω				R17	180Ω			

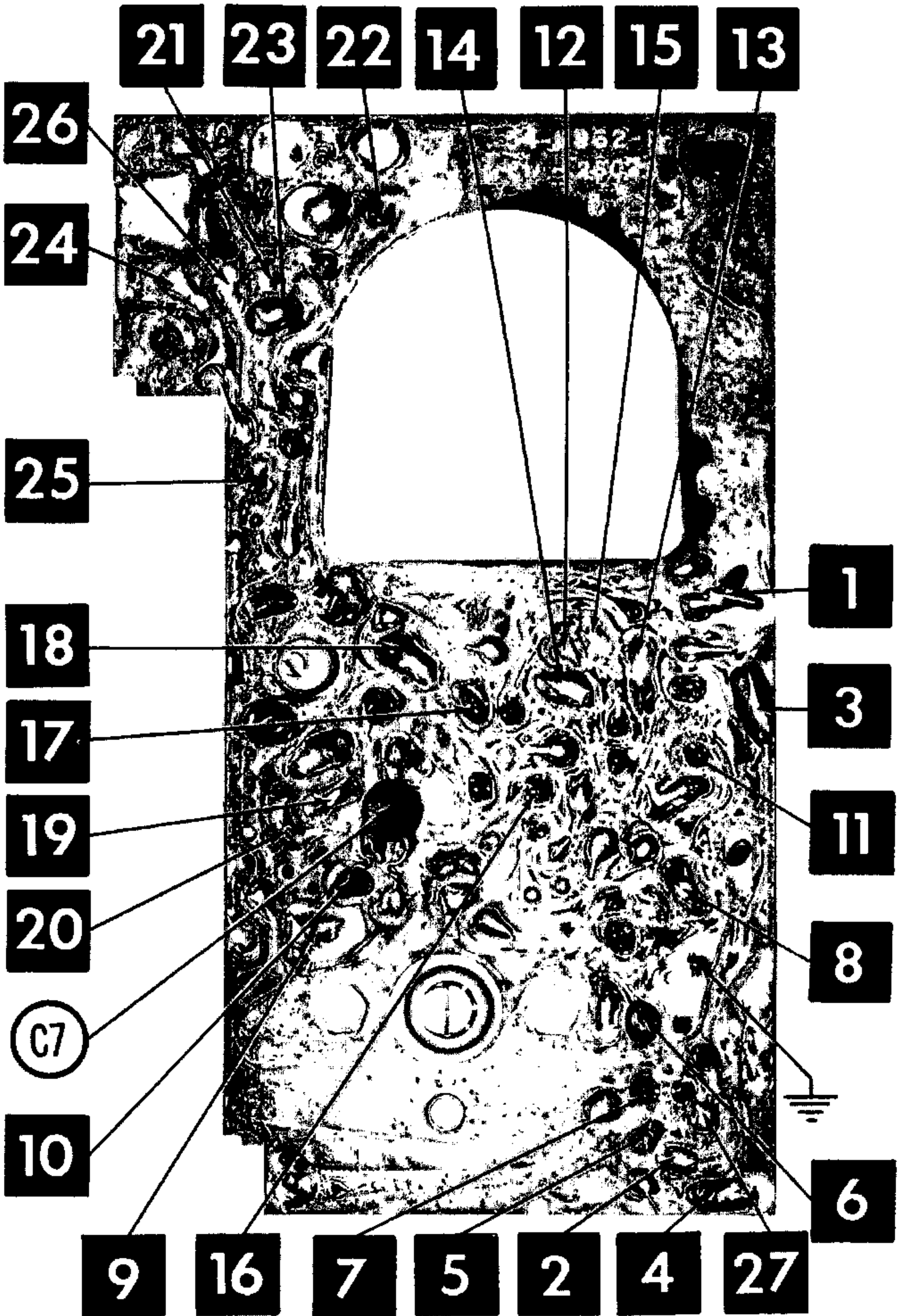
Note 1. Value varies between 18K and 33K. Select that value which allows X3 collector to draw 2MA.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		PHILCO PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	32-4761-2		2003		
L2	Osc.	32-4669-7				
L3	1st IF	32-4708-12				
L4	2nd IF	32-4708-13				
L5	3rd IF	32-4708-14				

PRINTED BOARD

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PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	PHILCO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	2	1	32-8838-3					
		SEC. 2						
		1						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	PHILCO PART No.	QUAM PART No.	
SP1	2 3/4"	PM	95-100Ω	36-1664-8		

BATTERIES

ITEM No.	VOLTAGE	PHILCO PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V	P-15 *		930 *		1015 *		M-16R *	* 4 Required (Radio) † 1 Required (Clock)
	1.5V	P-920 †		230 †		A100 †		M-13R †	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		PHILCO PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N60A	34-8022-3		1N60	1N60	Detector (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M3	Tuning Cap. Printed Board Timer Ass'y.	31-2788-2 54-6962-2 41-2073-3	2 Gang Model TC-57

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	424-8087	Tuning (Charcoal) Model T-52-124
Knob	424-8098	Tuning (Ivory) Model T-52-124
Knob	424-8099	Tuning (Terracotta) Model T-52-124
Knob	54-8624-16	Tuning, Model TC-57
Knob	54-8660-3	Volume, Model T-52-124
Knob	54-8660-2	Volume, Model TC-57
Knob	54-5428-3	Clock, Model TC-57
Cabinet	424-8088	Charcoal, Model T-52-124
Cabinet	424-8095	Ivory, Model T-52-124
Cabinet	424-8096	Terracotta, Model T-52-124
Cabinet Front	54-6979-3	Model TC-57
Cabinet Back	54-5688-1	Charcoal, Model T-52-124
Cabinet Back	54-5688-2	Ivory, Model T-52-124
Cabinet Back	54-5688-4	Terracotta, Model T-52-124
Cabinet Back	51-0056-5	Brown, Model TC-57B
Cabinet Back	51-0056-6	Champagne, Model TC-57CP
Crystal	54-5425	Clock, Model TC-57

WIRING DATA

General use Unshielded Hook-up Wire Use BKLDEN No. 8830 (Solid) Available in Ten Colors
8834 (Stranded) Available in Ten Colors

CHASSIS—TOP VIEW

