

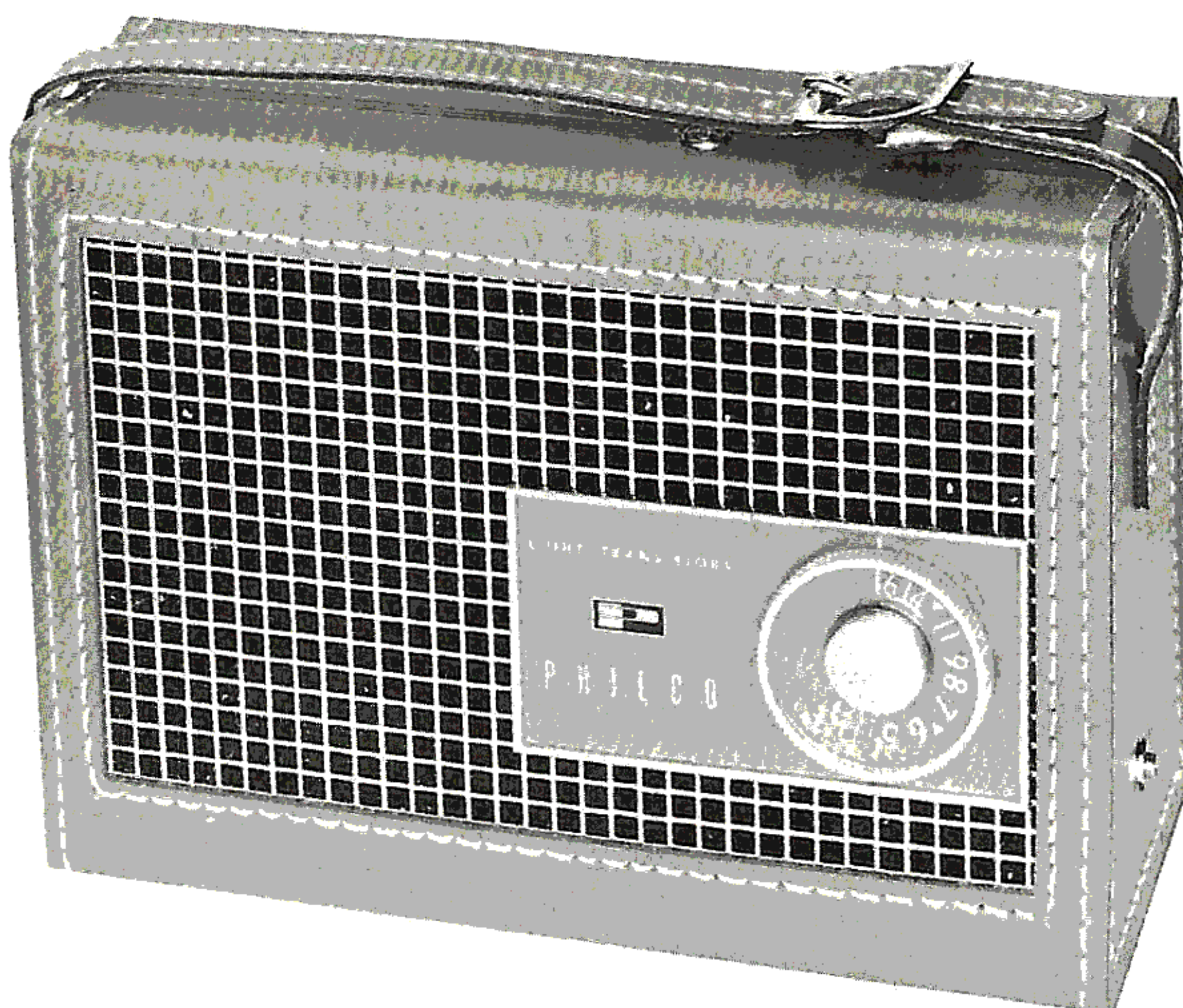
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with **CIRCUITRACE™**

**PHILCO
MODEL T-802**

Met dank aan Jef Bos

Ned. Ver. v. Historie



TRADE NAME	Philco Model T-802 (Code 124)	
MANUFACTURER	Philco Corp., Tioga & C Streets, Philadelphia, Pa.	
TYPE SET	Battery Operated Transistorized Portable AM Receiver	
POWER SUPPLY	6 Volts DC	RATING 15MA @ 6 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 - 1620KC	30MA @ 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.

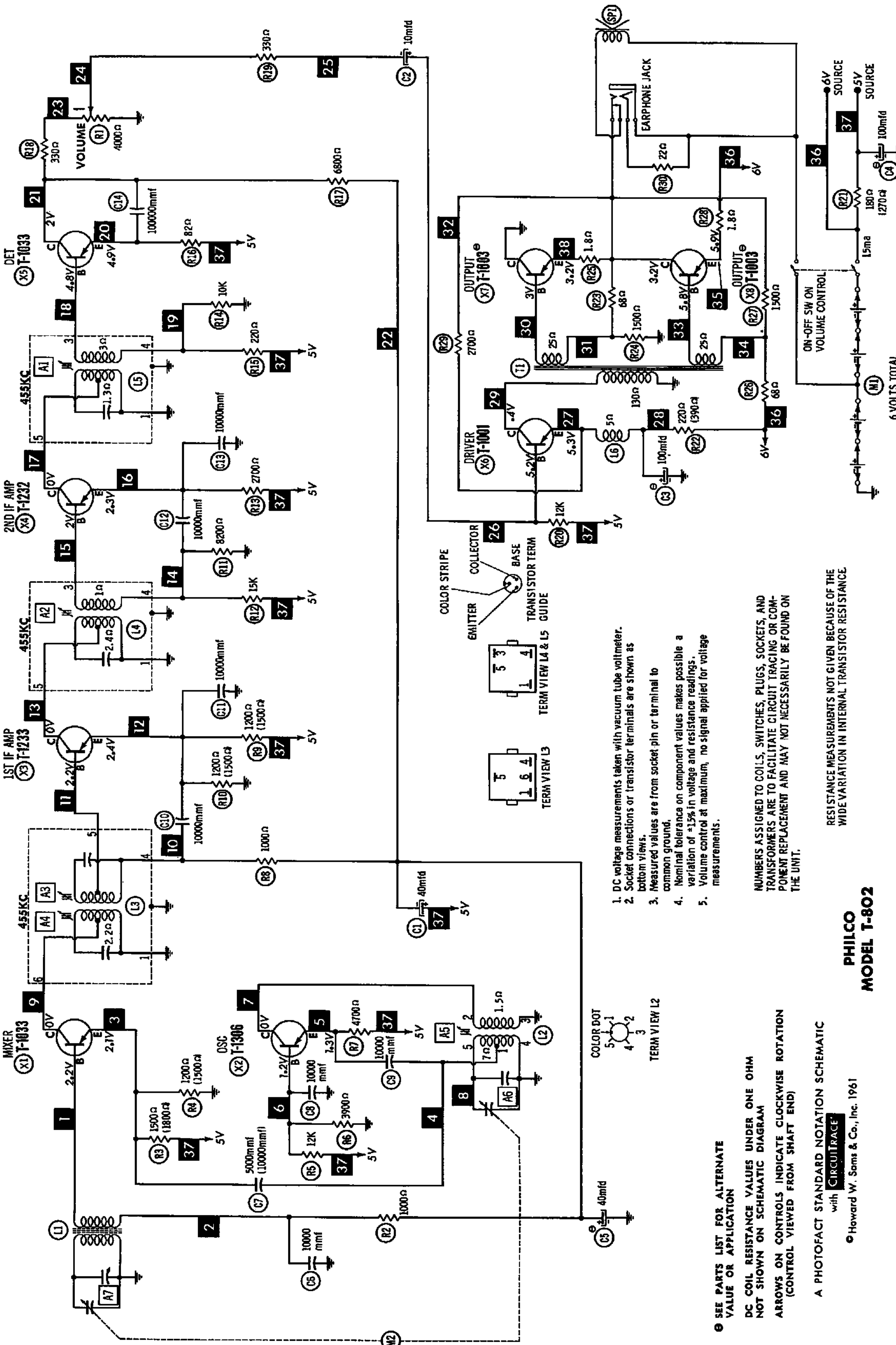
Suggested Alignment Tools: A1, A2.... GENERAL CEMENT #5009, 8195, 8274, 8275, 8278, 8279, 8987, 8988, 8989
 WALSCO #2515, 2531, 2532
 A3, A4.... GENERAL CEMENT #5097, 8727
 WALSCO #2515
 A5..... GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440
 WALSCO #2526, 2543, 2544, 2545
 A6, A7.... GENERAL CEMENT #5004, 5008, 5009
 WALSCO #2520

	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 (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	Loop	600KC	600KC	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1620KC	Tuning gang fully open.	"	A6	"
4.	"	1400KC	1400KC Signal.	"	A7	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 KF325

the particular type of replacement part listed. 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. © 1961 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



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)

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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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 ±15% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

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

**PHILCO
MODEL T-802**

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	T-1033	Mixer		2N486		PNP PNP PNP PNP PNP PNP PNP } Matched Pair
X2	T-1306	Oscillator				
X3	T-1233	1st IF Amplifier				
X4	T-1232	2nd IF Amplifier		2N483		
X5	T-1033	Detector				
X6	T-1001	Driver	2N406	2N382	2N406	
X7	T-1003 *	Output	2N408	2N632		
X8	T-1003 *	Output	2N408	2N632		

* Alternate Type T-1007.

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	40	6	30-2588-3	PTT-6040	NLW40-6	TT6X40	ML40-6	TE-1095	
C2	10	6	30-2591-9	PTT-6010	NLW10-6	TT6X10	ML10-6	TE-1087	
C3	100	6	30-2588-4	SRE6V100	NLW100-12	TT6X100	ML100-6	TE-1102	Note 1
C4	100	6	30-2588-4	SRE6V100	NLW100-12	TT6X100	ML100-6	TE-1102	Note 2
C5	40	6	30-2588-3	PTT-6040	NLW40-6	TT6X40	ML40-6	TE-1095	Note 3

Note 1. Run 53 uses 200mfd in this application (Part #30-2588-8).

Note 2. Run 53 uses 500mfd in this application (Part #30-2588-7).

Note 3. Not used in Run 53.

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.	
C6	10000	(10000) †	BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C7	5000		BPD-005	DD-502	H-05D5	CCD-502	TA-250	TG-D50	
C8	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C9	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C10	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C11	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C12	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C13	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10	
C14	100000 10V			BPD-01	UK10-104	H-05P1	CCD-103	TA-010	TG-P10

† Alternate Value

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	4000Ω	1/2	33-5575-25					Volume & Switch

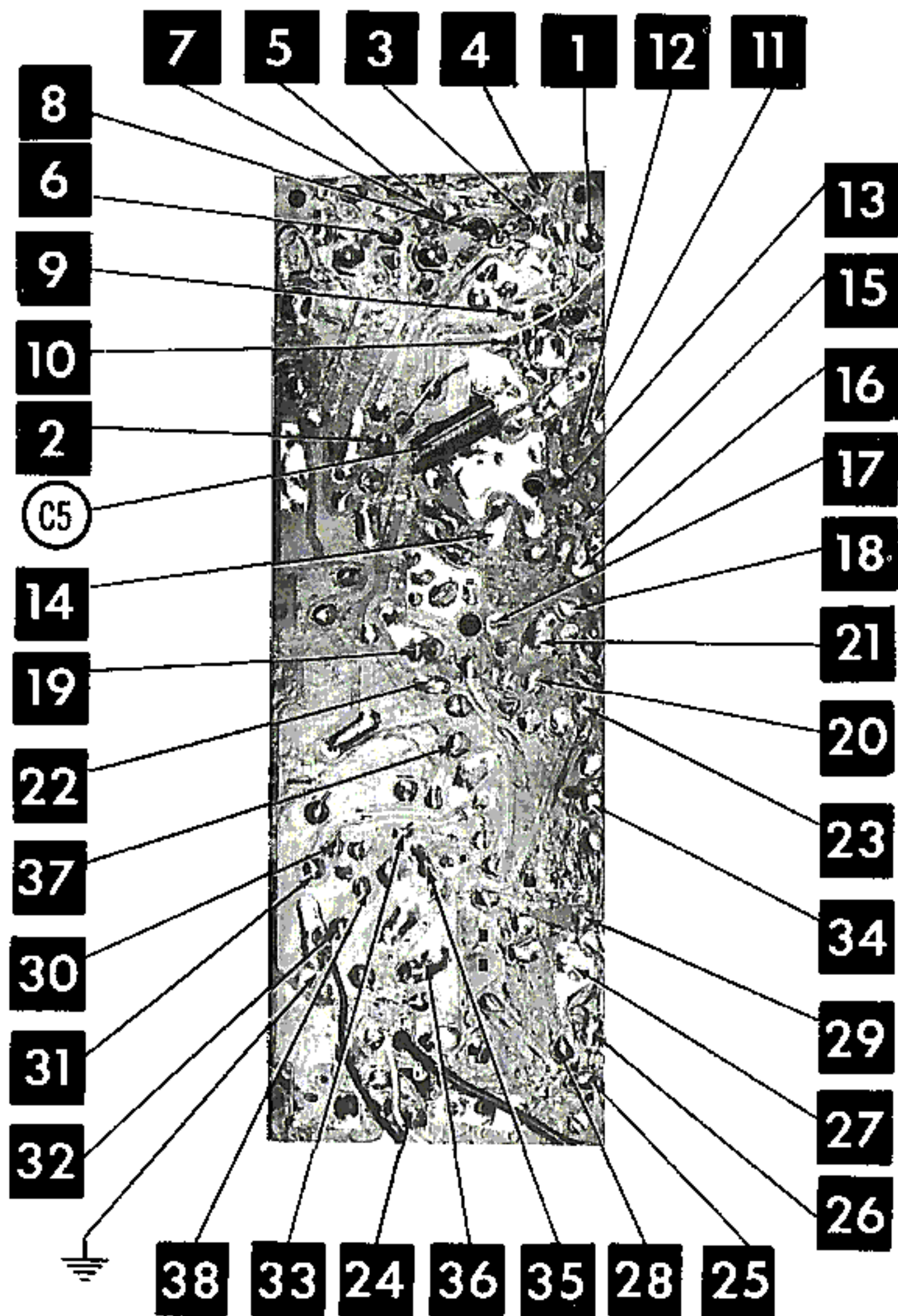
RESISTORS

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	1000Ω				R14	10K			
R3	1500Ω			(1800Ω) *	R15	220Ω			
R4	1200Ω			(1500Ω) *	R16	82Ω			
R5	12K				R17	6800Ω			
R6	3900Ω				R18	330Ω			
R7	4700Ω				R19	330Ω			
R8	1000Ω				R20	12K			
R9	1200Ω			(1500Ω) *	R21	180Ω			(270Ω) *
R10	1200Ω			(1500Ω) *	R22	220Ω			(390Ω) *
R11	8200Ω				R23	68Ω			
R12	15K				R24	1500Ω			
R13	2700Ω				R25	1.8Ω			

PRINTED BOARD

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PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (cont)

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
R26	68Ω				R29	2700Ω			
R27	1500Ω				R30	22Ω			
R28	1.8Ω								

* Value used in later production.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		PHILCO PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	32-4688-1				
L2	Osc.	32-4689-9				
L3	1st IF	32-4738-14				
L4	2nd IF	32-4738-2				
L5	3rd IF	32-4738-3				
L6	RF Choke(400uh)	32-4685-1	TV-202	6136	RTC-8579	

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			PHILCO PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.1						
T1	2	1	32-8947-1					
		SEC. 2						
		1						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	PHILCO PART No.	QUAM PART No.	
SP1	4"	PM	10-12Ω	38-1875-13	4A1Z12	

BATTERIES

ITEM No.	VOLTAGE	PHILCO PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V	P-920 OR P-907		230		A100		M-13R	4 Required

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M2	Tuning Cap. Printed Board	31-2790-10 54-8497-1	2 Gang

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	424-8114	Tuning
Knob	424-8113	Volume
Cabinet	28-13323-1	Front Panel Overlay
Cabinet	51-0134-1	

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors

CHASSIS—TOP VIEW

