



PHILCO MODELS D-664 (Code 124),
D-665 (Codes 124, 126)



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TRADE NAME	Philco Models D-664 (Code 124), D-665 (Codes 124, 126)					
MANUFACTURER	Philco Corp., Tioga & "C" Streets, Philadelphia, Pa.					
TYPE SET	Three Power Portable AM Superheterodyne Receiver					
TUBES (Four)	Types 1R5 Converter, 1U4 IF Amplifier, 1U5 (or) 1S5 Det. -AVC-AF Amp., 3V4 Output					
POWER SUPPLY	110-120 Volts AC-DC (or) 3 Volts "A" Supply & 75 Volts "B" Supply					
RATING	.15 Amp. @ 117 Volts AC (or) 150MA @ 3 Volts DC & 9MA @ 75 Volts DC					
TUNING RANGE—BROADCAST	540KC - 1620KC					
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. Use an insulated alignment screwdriver for adjusting.						
Use isolation transformer, if available. If not, connect a .1MFD capacitor in series with low side of signal generator and chassis.						
Set dial (before alignment) with gang closed to first gold mark below 550KC.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .1MFD	High side to pin 6 (grid) of 1R5 (V1). Low side to B-.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil	A1, A2 A3	Adjust for maximum output.
2.	Loop (radiated)	1620KC	1620KC*	"	A4	"
3.	"	1400KC	Tune to 1400KC signal.	"	A5	"
4.	"	600KC	Tune to 600KC signal.	"	A6	Adjust for maximum output while rocking tuning gang.
* Insert .006 inch non-metallic shim (or equivalent) between heel of rotor and top of stator plates. Close gang enough to hold shim. Remove shim without disturbing setting. Proceed with Step 2.						

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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PARTS LIST AND DESCRIPTIONS

PHILCO
MODEL D-664 (Code 124)

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
V1	Converter	1R5		V3	Det. -AVC-AF Amplifier	1U5	Note 1
V2	IF Amplifier	1U4		V4	Output	3V4	

Note #1. 1S5 may be used in some versions.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	PHILCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	.50	150	30-2585-1	E93D1	D029	FP409.6	TMQ125	Q-095	TVL-4428
B	.10	150						FM-1508	
C	.40	150							
D	.50	25							

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		REPLACEMENT DATA							NOTES
	CAP.	VOLT.	PHILCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	.05	200	30-4650-45	BPD-05	DF-503	CUB2S5		PT415	2TM-S5	
C3	.47		62-047009001	SI47	D6-470	TP29	GPIK-470	UC-5447	5GA-Q47	
C4	7.5		30-1224-13							
C5A	4000		30-1239	BPD-2X004	D6-402	DK078	822-004	DCD-524	5HK-2D4	
B	4000				D6-402					
C6	.2	200	30-4650-49	P288N-22	D6-050	CUB2P22		PT402	2TM-P22	
C7	.5		30-1230	SI5	DD-102	G011	GPIK-050	ZT-555	5GA-V5	
C8	1000		30-1238-3	BPD-001	DD-103	K069	801-001	DC-521	5HK-D1	
C9	10000		30-1238-2	BPD-01	D6-682	K082	811-01	DC-511	5HK-S1	
C10A	7000		30-1239-7	BPD-0068	D6-221	K081	811-0068		5HK-D68	
B	220			SI220	D6-221	G051	811-221		5GA-T22	
C11	.004	600	30-4650-56	BPD-004	D6-402	CUB6D4	811-004	PT624	6TM-D4	
C12	.1	400		P488N-1	DF-104	CUB4P1		PT401	4TM-P1	Note 1

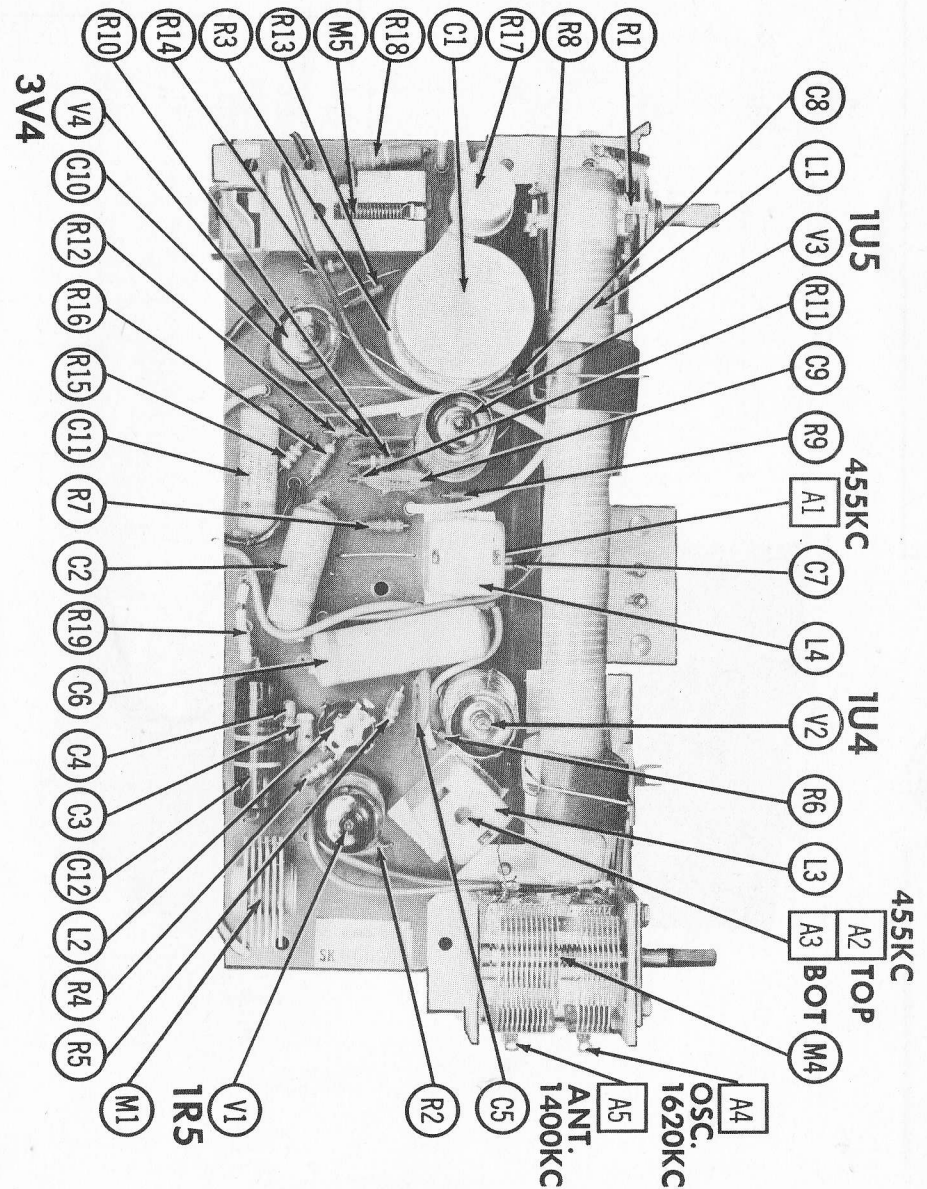
Note #1. Some versions use .047MFD in this application. (Part No. 30-4650-47).

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	PHILCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
RIA	1Meg		33-5566-60	B-70-S	A47-1Meg-Z	Q13-137	U-53	Volume Note 1
B	Shaft		Not Req.	Not Req.	FS-3	Not Req.	Not Req.	Attach to RIA
C	Switch		Not Req.	Not Req.	SWE-20	76-2	US-27	Attach to RIA

Note #1. Models D-664 (Code 124) and D-665 (Code 124) will use an alternate control Part No. 33-5566-70.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES	ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	PHILCO PART No.	IRC PART No.			OHMS	WATT	PHILCO PART No.	IRC PART No.	
R2	820Ω		66-1828340	BTS-820		R11	4.7Meg		66-5478340	BTS-4.7Meg	
R3	470Ω		66-1478340	BTS-470		R12	2.2Meg		66-5228340	BTS-2.2Meg	
R4	68KΩ		66-3688340	BTS-68K		R13	1500Ω		66-2158340	BTS-1500	
R5	15KΩ		66-3158340	BTS-15K		R14	27Ω		66-0278340	BTS-27	
R6	3.3Meg		66-5338340	BTS-3.3Meg		R15	470KΩ		66-4478340	BTS-470K	
R7	2.2Meg		66-5228340	BTS-2.2Meg		R16	220Ω		66-1228340	BTS-220	
R8	2200Ω		66-2228340	BTS-2200		R17A	1130Ω	10	33-3447-7		Note 1
R9	4.7Meg		66-5478340	BTS-4.7Meg		B	1130Ω	10			Note 1
R10	680KΩ		66-4688340	BTS-680K		R18	1800Ω	1	66-2184340	BTA-1800	Note 2
						R19	60Ω	2	33-1334-18		Note 3

Note #1. Some versions use 1050Ω 10 W in this application. (Mfgr. Part #33-3445-8).
 Note #2. Some versions use 820Ω 1 W in this application. (Mfgr. Part #66-1824340).
 Note #3. Some versions use 120Ω 2 W in this application. (Mfgr. Part #33-1334-19).
 Mfgr. states to replace with this special part only.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	PHILCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	10KΩ	3.4Ω	32-8434-1		A-2998	A-3329	29S49	S-11X

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	PHILCO PART No.	QUAM PART No.	RCA TYPE No.	
SP1	4"	PM	3-4Ω	36-1654-3	4A07	223S1	

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	PHILCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil	1Ω		32-4455-13				Note 1
L2	Osc. Coil	1.7Ω	6.5Ω	32-4618				
L3	Input IF	25Ω	25Ω	32-4583-1	16-6780			
L4	Output IF	34Ω	25Ω	32-4619			13-PC1	

Note #1. Part #76-9545 used in Models D-664, D-665, Code 124.

SELENIUM RECTIFIER

ITEM No.	RATING	REPLACEMENT DATA						NOTES
	CURRENT	PHILCO PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	MALLORY PART No.	RADIO RECEPTOR PART No.	SARKES TARZIAN PART No.	
M1	.068A	34-8003-18	1276	RS75	6S100	5M1	75S	

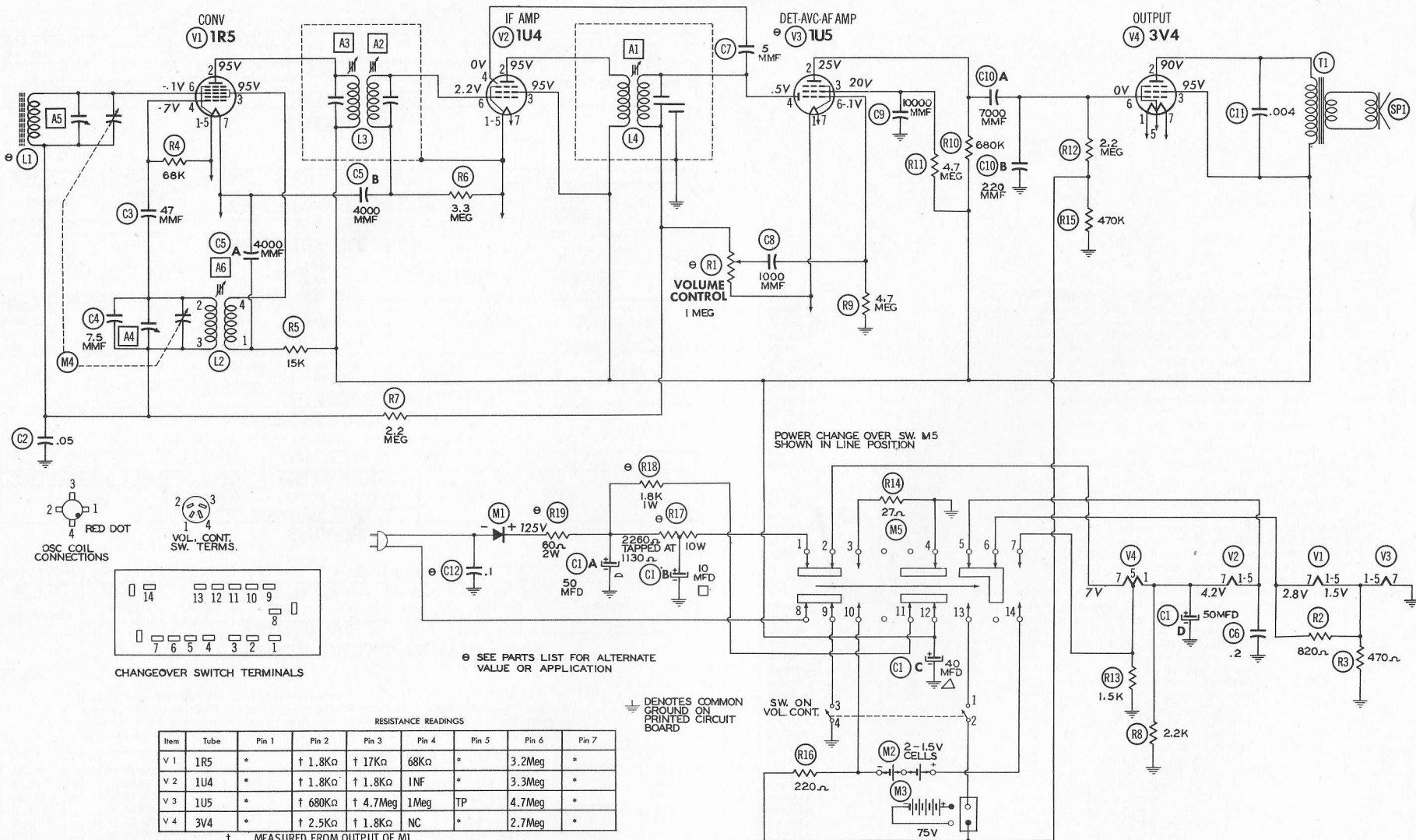
BATTERIES

ITEM No.	VOLTAGE	PHILCO PART No.	REPLACEMENT DATA						INSTALLATION NOTES
			EVEREADY			BURGESS			
			"A"	"B"	"A-B"	"A"	"B"	"A-B"	
M2	3V "A"	P-77	964				21R		Connect 2 in Series.
M3	75V "B"	P-144	437				XX50		

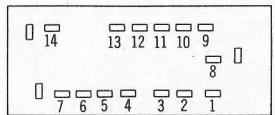
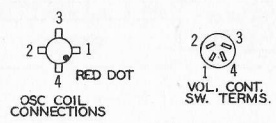
PARTS LIST AND DESCRIPTIONS (Continued)

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M4	Tuning Cap.	31-2735-6	2 Gang (22-330MMF, 12-140MMF) Model D-665 (Code 126). Models D-664, D-665 (Code 124). Power Changeover (2 Position-Slide Type). Two-Toned Green, Model D-664. Two-Toned Gray, Model D-664. Two-Toned Brown, Model D-664. Star Frost, Model D-664. Fiesta Red, Model D-664. Coral & Grey, Model D-664. Brown & Tan, Model D-664. Light Green, Model D-665 (Code 124). Brown Alligator, Model D-665 (Code 124). Light Green, Model D-665 (Code 126). Star Frost, Model D-665. Fiesta Red, Model D-665. Model D-664 (Two-Toned Green Cabinets). Model D-664 (Two-Toned Gray Cabinets). Model D-664 (Two-Toned Brown Cabinets). Models D-664, D-665 (Star Frost Cabinets). Models D-664, D-665 (Fiesta Red Cabinets). Model D-664 (Coral & Grey Cabinets). Model D-664 (Brown & Tan Cabinets). Model D-665 (Light Green Cabinets). Model D-665 (Brown Alligator Cabinets). On-Off-Volume, Model D-664 (Two-Toned Green Cabinets). On-Off-Volume, Model D-664 (Two-Toned Gray Cabinets). On-Off-Volume, Model D-664 (Two-Toned Brown Cabinets). On-Off-Volume Models D-664, D-665 (Star Frost Cabinets). On-Off-Volume, Models D-664, D-665 (Fiesta Red Cabinets). On-Off-Volume, Model D-664 (Coral & Grey Cabinets). On-Off-Volume, Model D-664 (Brown & Tan Cabinets). On-Off-Volume, Model D-665 (Code 124) Light Green Cabinets. On-Off-Volume, Model D-665 (Brown Alligator Cabinets). On-Off-Volume, Model D-665 (Code 126) Light Green Cabinets.
M4	Tuning Cap.	31-2735-9	
M5	Switch	42-2033	
	Cabinet	11117	
	Cabinet	11117-1	
	Cabinet	11117-2	
	Cabinet	11117-3	
	Cabinet	11117-4	
	Cabinet	11117-5	
	Cabinet	11117-6	
	Cabinet	11113	
	Cabinet	11113-1	
	Cabinet	11113-2	
	Cabinet	11113-3	
	Cabinet	11113-4	
	Handle	54-5211-5	
	Handle	54-5211	
	Handle	54-5211-6	
	Handle	76-9786	
	Handle	76-9786-1	
	Handle	76-9786-2	
	Handle	76-9786-3	
	Handle	52-5211-4	
	Handle	52-5211-3	
	Knob	54-6121-6	
	Knob	54-6121-10	
	Knob	54-6121-9	
	Knob	54-6121-13	
	Knob	54-6121-15	
	Knob	54-6121-17	
	Knob	54-6121-19	
	Knob	54-6121-2	
	Knob	54-6121-4	
	Knob	54-6121	
	Knob	54-6121-7	
	Knob	54-6121-11	
	Knob	54-6121-9	
	Knob	54-6121-12	
	Knob	54-6121-14	
	Knob	54-6121-16	
	Knob	54-6121-18	
	Knob	54-6121-3	
	Knob	54-6121-5	
	Knob	54-6121-1	
	Knob	54-6122	



IF = 455 KC



CHANGEOVER SWITCH TERMINALS

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

⊥ DENOTES COMMON GROUND ON PRINTED CIRCUIT BOARD

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	1R5	*	† 1.8K Ω	† 17K Ω	68K Ω	*	3.2Meg	*
V 2	1U4	*	† 1.8K Ω	† 1.8K Ω	1N Ω	*	3.3Meg	*
V 3	1U5	*	† 680K Ω	† 4.7Meg	1Meg	TP	4.7Meg	*
V 4	3V4	*	† 2.5K Ω	† 1.8K Ω	NC	*	2.7Meg	*

† MEASURED FROM OUTPUT OF M1.
 * DO NOT USE OHMMETER TO MEASURE FILAMENT RESISTANCE.
 TP TIE POINT.
 NC NO CONNECTION.

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
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.