

## PHOTOFACT® Folder

with CIRCUITRACE®

PHILCO MODELS  
H-1814, H-1816, H-1916PHILCO MODELS  
H-1814, H-1816, H-1916

MODEL H-1816

PHILCO MODELS  
H-1814, H-1816, H-1916

TRADE NAME	Philco Models H-1814, H-1816, H-1916		
MANUFACTURER	Philco Corp., Tloga & "C" Streets, Philadelphia, Pa.		
TYPE SET	AC Operated 9 Tube Stereo Amplifier with 4 Speed Automatic Record Changer		
POWER SUPPLY	105-120 Volts AC, 60 Cycles	RATING	120 Watts, 1 Amp. @ 117 Volts AC (Less Motor)

FOR SERVICE INFORMATION ON PHILCO RECORD CHANGER M-45 (PART #35-1559) - SEE SIMILAR GLASER-STEERS GS-77 - PHOTOFACT SET 399 FOLDER 7.

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

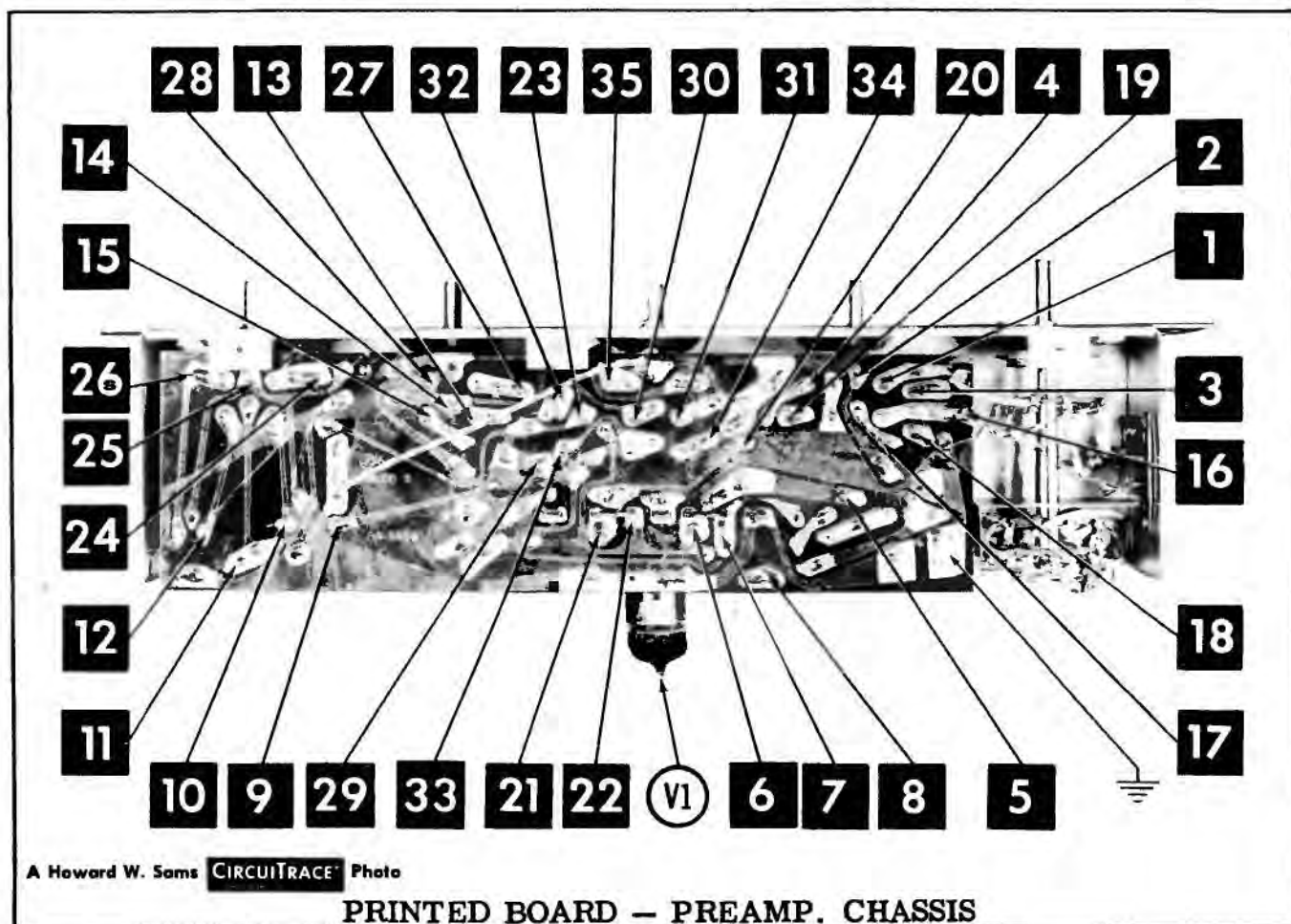
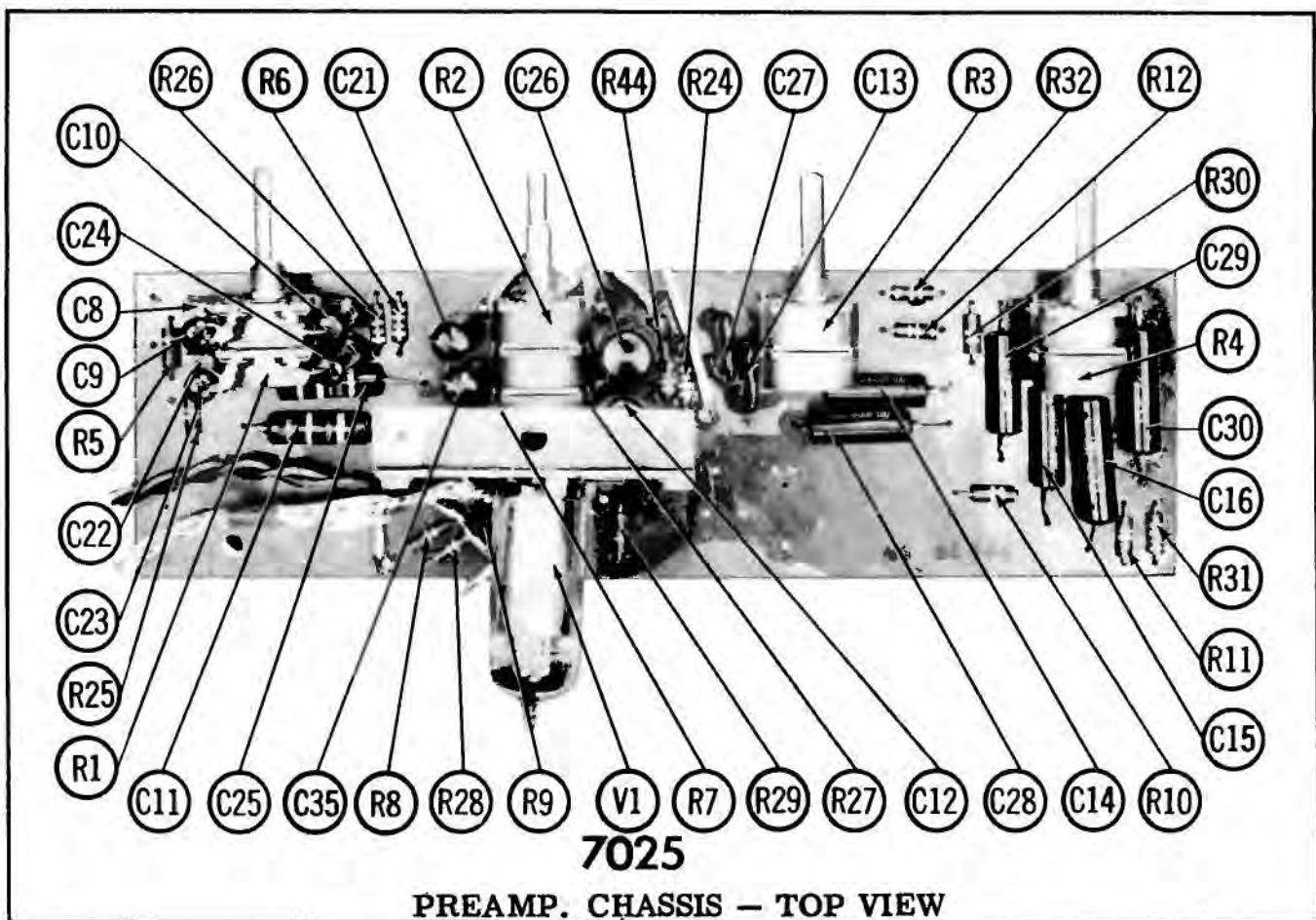
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JT683

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. © 1960 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America

DATE 5-60

SET484

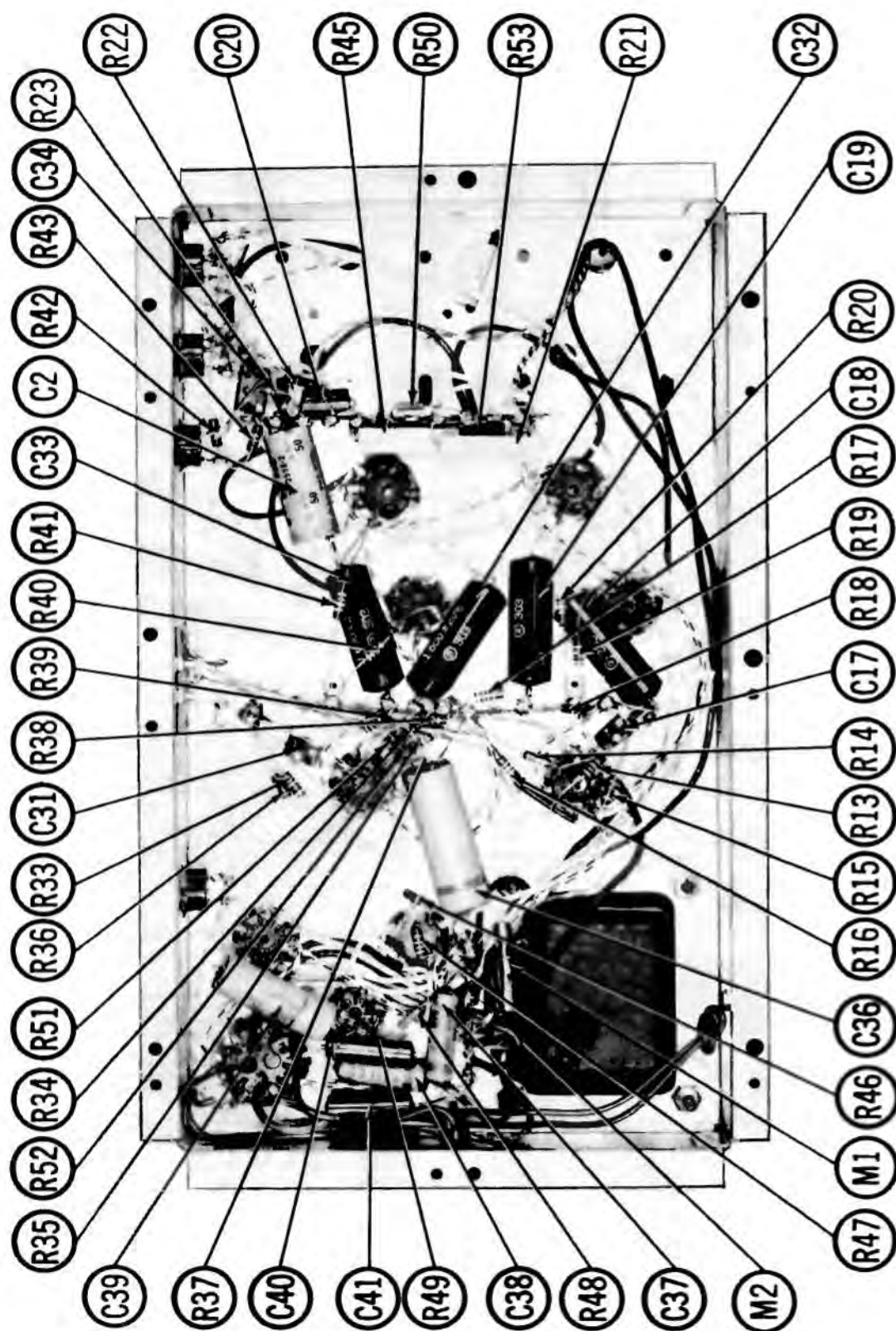
FOLDER 14



A Howard W. Sams **CIRCUITRACE** Photo







AMP. CHASSIS - BOTTOM VIEW

PHILCO MODEL  
H-1814

FOLDER 14



# **PARTS LIST AND DESCRIPTIONS**

## **TUBES**

CBS				RAYTHEON				SYLVANIA			
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Left Channel Preamp.	7025	V5	Right Channel AF Amp.	7199	V6	Phase Inv.	8BQ5 (7189) *	T4	Right Channel Output	8BQ5 (7189) *
V2	Right Channel Preamp.	7199	V7	Right Channel Output	8CA4	V8	Rectifier	8EB5	T5	Rectifier	8EB5
V3	Phase Inv.	8BQ5 (7189) *	V9	Rectifier	8EB5						
V4	Left Channel Output	8BQ5 (7189) *									

\* Used in Model H-1918.

## **ELECTROLYTIC CAPACITORS**

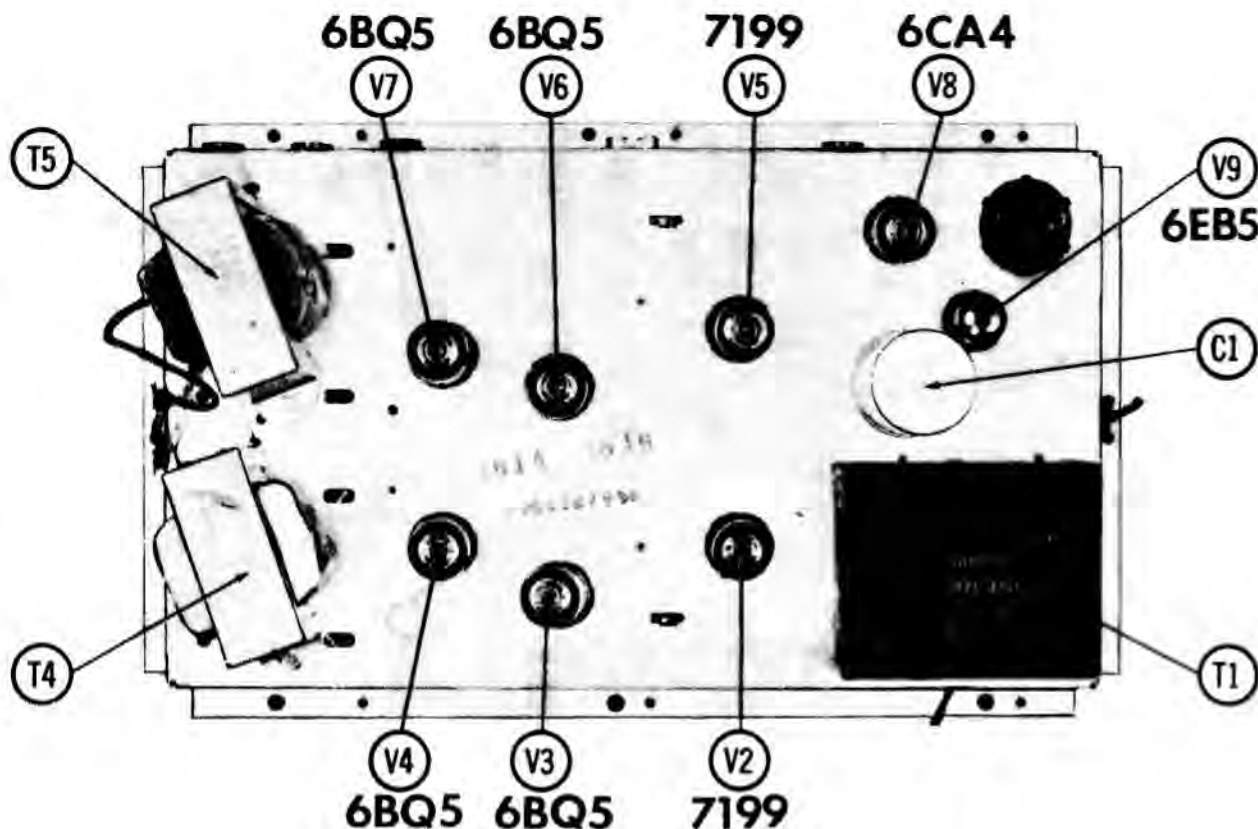
REPLACEMENT DATA									
ITEM No.	RATING	PHILCO PART No.	AEROVOX PART No.	CORNEILL DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	NOTES	
C1A	40	30-2590-39	A784-18-10	D00.71	FP46	TMT-37	TVL-4771.8		
C1B	450					TD-10-450			
C1C	450								
C1D	450								
C2	50	30-2596-2	PR5150	BR505	TC39	TD-50-50	TVA-1308		
C3	25	25AC	NP-PR57350	BBR50-25	TC99		TVAS-1205.1*		
C4	35	25NP	NP-PR57450	BBR100-25	TC492		TVAS-1205.5*		
C5	12	25NP	NP-PR57215	BR25-25	TCN5010		TVAS-1204.3*		
C6	35	25NP	NP-PR57450	BBR100-25	TC492		TVAS-1205.5*		
C7	12	25NP	NP-PR57215	BBR25-25	TCN5010		TVAS-1204.3*		

† Use 2 units. Connect negative terminals together. Connect positive terminals into circuit the same as the original non-polarized unit.  
 \* Not normally in distributor's stock. Available thru distributor on order to manufacturer.  
 Note 1. Not used in Model H-1918.

## **FIXED CAPACITORS**

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

REPLACEMENT DATA									
ITEM No.	RATING	REMARKS	AEROVOX PART No.	CORNEILL DUBILIER PART No.	ELAMCO PART No.	MALLORY PART No.	SPRAGUE PART No.		
C8	27 10%		1489-000027	TCZ-27	CM-19B-270K	CNO-427	MS-427		
C9	.0015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C10	.0022 400V 10%		V84CXD22-10%		8DP-1-222	GP222	8TM-D22		
C11	.0047 400V 10%		V84CXD47-10%		8DP-1-472	JL-247	8TM-D47		
C12	.047 800V	Note 1	P688N-047	DD-503	8DP-3-473	GEM-6147	8TM-S47		
C13	180 10%		1489-00018	TCZ-180	CM-19B-181K	CNO-318	MS-318		
C14	.001 400V 10%		V84CXD1-10%	DD-102	8DP-1-102	GP210	8TM-D10		
C15	.0015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C16	.015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C17	.1 800V		1489-000047	TCZ-47	8DP-1-473	GEM-6147	8TM-S47		
C18	.1 800V		P688N-1	DD-104	8DP-4-104	GEM-601	8TM-P1		
C19	.1 800V		P688N-1	DD-104	8DP-4-104	GEM-601	8TM-P1		
C20	.033 400V 10%		1489-000033	TCZ-100	CM-19B-101K	MS-310	8TM-S10		
C21	.033 400V 10%		V84CXD33-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C22	.0015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C23	.0022 400V 10%		V84CXD22-10%	DD-152	8DP-1-222	GP222	8TM-D22		
C24	.0047 400V 10%		V84CXD47-10%	DD-152	8DP-1-472	JL-247	8TM-D47		
C25	.047 800V		P688N-047	DD-503	8DP-3-473	GEM-6147	8TM-S47		
C26	180 10%		1489-00018	TCZ-180	CM-19B-181K	CNO-318	MS-318		
C27	.001 400V 10%		V84CXD1-10%	DD-102	8DP-1-102	GP210	8TM-D10		
C28	.0015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C29	.0015 400V 10%		V84CXD15-10%	DD-152	8DP-1-152	GP215	8TM-D15		
C30	.015 400V 10%		1489-000047	TCZ-47	8DP-1-473	GEM-6147	8TM-S47		
C31	.1 800V		P688N-1	DD-104	8DP-4-104	GEM-601	8TM-P1		
C32	.1 800V		P688N-1	DD-104	8DP-4-104	GEM-601	8TM-P1		
C33	.1 800V		P688N-1	DD-104	8DP-4-104	GEM-601	8TM-P1		
C34	100 10%		1489-0001	TCZ-100	CM-19B-101K	MS-310	8TM-S10		



# PARTS LIST AND DESCRIPTIONS (Continued)

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELENCO PART No.	SPRAGUE PART No.
C35	.033 400V 10%		V84C4S33-10%		PM4S33	4DP-2-333	4TM-S33
C36	.22 400V		P466N-22		CUB4P22	4DP-5-224	4TM-P22
C37	.1 1000V		P1066N-1		CUB10P1		10TM-P1
C38	.1 1000V		P1066N-1		CUB10P1		10TM-P1
C39	.015 1600V		P1664CM-815	DX16-153	CUB16S16	16DP-4-153	MB-S15
C40	.01 600V		P666N-01	D6-103	CUB6S1	8DP-2-103	8TM-S1
C41	.01 600V		P666N-01	D6-103	CUB6S1	8DP-2-103	8TM-S1

Note 1. Model H-1916 uses .01mfd in this application.

## CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				INSTALLATION NOTES
			PHILCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1A	2meg *		33-5599-3				Loudness, Left Channel
R2A	2meg *		33-5599-4				Loudness, Right Channel
R3A	500K						Balance
R4A	500K						Contour, Left Channel
R5A	500K						Contour, Right Channel
R6A	500K						Treble, Right Channel
R7A	500K						Treble, Left Channel
R8A	500K						Base, Right Channel
R9A	500K						Base, Left Channel

\* Tape @ 200K and 1meg.

## RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R5	150K		R22	12K	
R6	47K		R23	12K	
R7	1meg		R24	3900Ω	
R8	100K		R25	150K	
R9	1500Ω		R26	47K	
R10	220K		R27	1meg	
R11	22K		R28	100K	
R12	100K		R29	220K	
R13	470K		R30	1500Ω	
R14	220K		R31	22K	
R15	620Ω		R32	100K	
R16	270K		R33	470K	
R17	47K		R34	220K	
R18	47K		R35	390K	
R19	470K		R36	820Ω	
R20	470K		R37	270K	
R21	70Ω 10W		R38	47K	

① Not used in Model H-1916.

# Philco Part No.

\* Used in Model H-1916.

## CROSSOVER CHOKE

ITEM No.	CURRENT (Measured)	DC RES.	INDUCTANCE (1000 $\mu$ H)	REPLACEMENT DATA			
				PHILCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.
L1		13Ω	10MH				
L2		.2Ω	1MH				
L3		.2Ω	1MH				

## TRANSFORMER (POWER)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				
			PHILCO PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Triad PART No.
T1	117V ① 1A ② 130A ③ 3A		32-8932-2				
	SEC. 1 SEC. 2 SEC. 3 SEC. 4 SEC. 5						
	117V ① 1A ② 130A ③ 3A						
	6.3V ② 4.8A						

## TRANSFORMER (IMP. MATCH.)

ITEM No.	TURNS RATIO	REMARKS	REPLACEMENT DATA				NOTES
			PHILCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	
T2	1 2		32-8895-1				
T3	1 2		32-8895-1				

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REMARKS	REPLACEMENT DATA				
			PHILCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Triad PART No.
T4	5700Ω CT		32-8930-1 ①				
	SEC. 1 SEC. 2 SEC. 3						
	5700Ω CT		32-8930-2 ②				

① Part #32-8931-2 used in Model H-1916. ② Part #32-8931-1 used in Model H-1916.

## SPEAKER

ITEM No.	TYPE	FIELD	V. C. IMP.	REPLACEMENT DATA			NOTES
				PHILCO PART No.	QUAM PART No.	Stancor PART No.	
SP1	12"	PM	6-6Ω	38-1676-2 ①	12A31PA		① Two speakers (Part #38-1667-1, 38-1667-2) connected in series for Model H-1916.
SP2	2" x 10"	PM		328-0007			
SP3	Electrostatic			38-1674-1			
SP4	2" x 10"	PM		328-0007			
SP5	Electrostatic			38-1674-1			

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			PHILCO PART No.	LITTELFUSE PART No.	Stancor PART No.	BUSS PART No.
M1	MDV	3A	45-2856-64	315003 (3A 250V S/B P/T)		
M2	1 1/2"	Length of #28 wire				

H-1814, H-1816, H-1916

FOLDER 14

**PAGE 8**

ITEM No.	REPLACEMENT DATA										
	PHILCO PART No.	ASTATIC		ELECTRO-VOICE		JENSEN		SONOTONE			
		CUTBACK	HEBULL	CUTBACK	HEBULL	CUTBACK	HEBULL	CUTBACK	HEBULL		
M3		13TB	Not Req.	265	Not Req.					1072-8	N-1072-8

ITEM No.	REPLACEMENT DATA									
	PHILCO PART No.	ASTATIC		ELECTRO-VOICE		JENSEN		SONOTONE		
		CUTBACK	HEMI	CUTBACK	HEMI	CUTBACK	HEMI	CUTBACK	HEMI	
M3		13TB	Not Req.	265	Not Req.				1072-8	N-1072-8

## (FOR REPLACEMENT IN ORIGINAL EQUIPMENT CARTRIDGE)

ITEM No.	REPLACEMENT DATA				REMARKS
	PHILCO PART No.	CLEVITE PART No.	WALCO PART No.	JENSEN PART No.	
44			W-10LST5 † or W-10LSTD †	E98 † or E98D †	† Jewel ♦ Diamond
			W-103MG8 † or W-102MGID †	E98X † or E98XD †	

ITEM No.	PART NAME	PHILCO PART No.	NOTES
45	Switch	42-2112-1	Off-On-Reject (Part of Changer)
46	Switch		Photo Drive (Part of Changer)
47	Motor		
	Printed Board	54-5665	

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

NAME	PART NO.	DESCRIPTION
Knob	28-11586-4	Loudness, Treble, Bass, Function
Knob	28-11588-5	Contour
Knob	54-567-1	Balance

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 6530 (Solid) Available in Ten Colors
Power Cord .....	Use BELDEN No. 8324 (Stranded) Available in Ten Colors
Low-Loss Shielded Lead (Interconnecting) .....	Use BELDEN No. 1768-B (6 Ft. Length)
Phone Pick-up Arm Cable .....	Use BELDEN No. 1728-K (7 1/2 Ft. Length)
	Use BELDEN No. 8401
	Use BELDEN No. 8430 (Two Conductor - Twisted)