

PHOTOFACT* Folder



CHALLENGER
MODELS CH612, Y

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TRADE NAME	Challenger Models CH612, CH612Y
MANUFACTURER	Challenger Amplifier Co., 29 Ninth Ave., New York 14, N. Y.
TYPE SET	AC-Battery Operated 18 Watt Audio Amplifier With Manual Record Player
TUBES (Six)	Types 6SF5 Preamplifier, 6SF5 1st. AF Amplifier, 6SL7GT 2nd. AF Amplifier-Phase Inverter, (2) 6V6GT Output, 6AX5GT Rectifier
POWER SUPPLY	110-120 Volts AC-60 Cycles (or) 6Volt Storage Battery (or) 12 Volt Storage Battery
RATING	.65 Amp. @ 117 Volts AC (or) 11 Amp. @ 6.3 Volts DC (or) 5.5 Amp. @ 12.6 Volts DC

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

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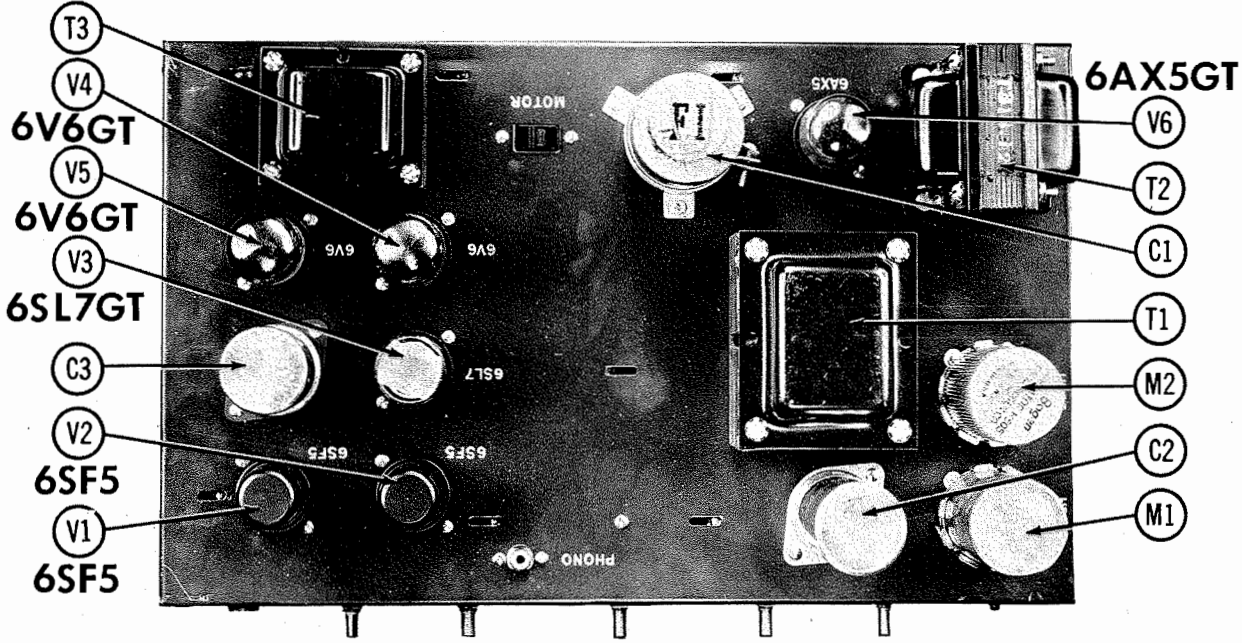
SET 324 FOLDER 5

PARTS LIST AND DESCRIPTIONS
TUBES (GENERAL ELECTRIC, SYLVANIA)

CHALLENGER
Model CH612

ITEM No.	USE	TYPE	NOTES
V1	Pre Amplifier	6SF5	
V2	1st AF Amplifier	6SL7GT	
V3	2nd AF Amp.-Phase Inv.	6AX5GT	

CHASSIS—TOP VIEW



ELECTROLYTIC CAPACITORS

ITEM No.	RATING	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.	NOTES
C1	5 220		RR643	CRX3050	RP-3305	TMQJ9	Q-070	TVL-4830	
C2A	8 500								
C2B	8 500								
C2C	8 500								
C2D	8 500								
C3A	5 450								
C3B	5 450								
C3C	5 450								
C3D	5 450								
C4	50 450								
C5	100 25								
C6	100 25								

Note 1. C2C and C2D are not used.

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	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C7	.033		BPD-03	DF-303	PT6133	PT6133	6TM-533	
C8	10000		BPD-01	DF-103	K093	DC-511	5HK-SI	
C9	.033		S330-03	DD-331	PT6133	PT6133	5GM-S33	
C10	330		S330-03	DD-331	G056	UC-5333	5GA-T33	
C11	1500		S330-03	DD-331	K093	DC-5215	5HK-D15	
C12	650		S330-03	DD-331	K093	DC-5215	5GA-T63	
C13	2200		S330-03	DD-331	K093	DC-5215	5HK-D22	
C14	.1		S330-03	DD-331	K093	DC-5215	5HK-D22	
C15	.02		S330-03	DD-331	K093	DC-5215	5HK-D22	
C16	.02		S330-03	DD-331	K093	DC-5215	5HK-D22	
C17	.047		S330-03	DD-331	K093	DC-5215	5HK-D22	
C18	.1		S330-03	DD-331	K093	DC-5215	5HK-D22	
C19	.1		S330-03	DD-331	K093	DC-5215	5HK-D22	
C20	.1		S330-03	DD-331	K093	DC-5215	5HK-D22	
C21	.22		S330-03	DD-331	K093	DC-5215	5HK-D22	

CONTROLS

ITEM No.	RATING	CHALLENGER PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
R1A	500KΩ		B-60	Q13-133	U-48	Microphone Level	Note #1
R1B	500KΩ		Not Req.	Q13-133	U-48	Phono Level	Note #1
R2A	500KΩ		Not Req.	Q13-133	U-48	Phono Level	Note #1
R2B	500KΩ		Not Req.	Q13-133	U-48	Phono Level	Note #1

Note #1. Migr. Part #V387 Used in Some Versions.

RESISTORS

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

ITEM No.	RATING	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
R3	1Meg		BTS-1Meg	PT6133	PT6133	PT6133	6TM-533	
R4	100KΩ		BTS-100K	PT6133	PT6133	PT6133	6TM-533	
R5	220KΩ		BTS-220K	PT6133	PT6133	PT6133	6TM-533	
R6	47KΩ		BTS-47K	PT6133	PT6133	PT6133	6TM-533	
R7	470KΩ		BTS-470K	PT6133	PT6133	PT6133	6TM-533	

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (cont)

ITEM No.	RATING	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
R13	82KΩ		BTS-82K	PT6133	PT6133	PT6133	6TM-533	
R14	150KΩ		BTS-150K	PT6133	PT6133	PT6133	6TM-533	
R15	1Meg		BTS-1Meg	PT6133	PT6133	PT6133	6TM-533	
R16	100KΩ		BTS-100K	PT6133	PT6133	PT6133	6TM-533	
R17	220KΩ		BTS-220K	PT6133	PT6133	PT6133	6TM-533	
R18	100KΩ		BTS-100K	PT6133	PT6133	PT6133	6TM-533	
R19	100KΩ		BTS-100K	PT6133	PT6133	PT6133	6TM-533	
R20	47KΩ		BTS-47K	PT6133	PT6133	PT6133	6TM-533	
R21	100KΩ		BTS-100K	PT6133	PT6133	PT6133	6TM-533	
R22	320KΩ		BTS-320K	PT6133	PT6133	PT6133	6TM-533	

TRANSFORMER (POWER)

ITEM No.	RATING	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
T1	117VAC 6VCT @ 1.5A		TS78-12	PT6133	PT6133	PT6133	6TM-533	
T2	6VCT @ 1.5A		TS78-12	PT6133	PT6133	PT6133	6TM-533	

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
T3	10.5KΩ		TS78-12	PT6133	PT6133	PT6133	6TM-533	

VIBRATOR

ITEM No.	TYPE	INPUT	FREQUENCY	CHALLENGER PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	ERE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
M1	Interrupter	8V	115%							
M2	Interrupter	6V	60%							

PHONO CARTRIDGE

ITEM No.	REPLACEMENT DATA	REMARKS
M3	ASTATIC CARTRIDGE	REMARKS
M4	ASTATIC CARTRIDGE	REMARKS

ASTATIC NEEDLE LISTING SHOWN ABOVE IS SPECIFIED FOR THE RESPECTIVE REPLACEMENT CARTRIDGE LISTED. FOR ORIGINAL CARTRIDGE NEEDLE REPLACEMENT SEE BELOW.

PHONO NEEDLE

(FOR REPLACEMENT IN ORIGINAL EQUIPMENT CARTRIDGE)

ITEM No.	REPLACEMENT DATA	REMARKS
M5	ASTATIC CARTRIDGE	REMARKS
M6	ASTATIC CARTRIDGE	REMARKS

MISCELLANEOUS

ITEM No.	PART NAME	CHALLENGER PART No.	NOTES
M5	Pilot Light		
M6	Switch		
M7	Switch		

CHASSIS—BOTTOM VIEW

