

PHOTOFACT* Folder



CHALLENGER
MODEL AC10

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TRADE NAME	Challenger Model AC10
MANUFACTURER	Challenger Amplifier Co., P. O. Box 500, Paramus, N. J.
TYPE SET	AC Operated 10 Watt 6 Channel Audio Amplifier
TUBES	Five
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles RATING 47 Watts, .52 Amp. @117 Volts AC

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

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PARTS LIST AND DESCRIPTIONS TUBES (GENERAL ELECTRIC, PENNSYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	Transmitter	7025	①
V2	A.P. Amp. -Phase Inv.	6U8A	
V3	Output	6A05	

① Alternate type 12AX7.

ELECTROLYTIC CAPACITORS

RATINGS		REPLACEMENT DATA	
ITEM No.	CAP. VOLT.	CHALLENGER PART No.	AEROVOX PART No.
C1A	200	C336	A.PH3-37-95
C1B	350		TC93
C1C	500		B98A-201
C2	200	C338	PH825V10
C3	35		EB800-25

* Not normally in distributors stock. Available thru distributor in order to manufacturer.

FIXED CAPACITORS

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

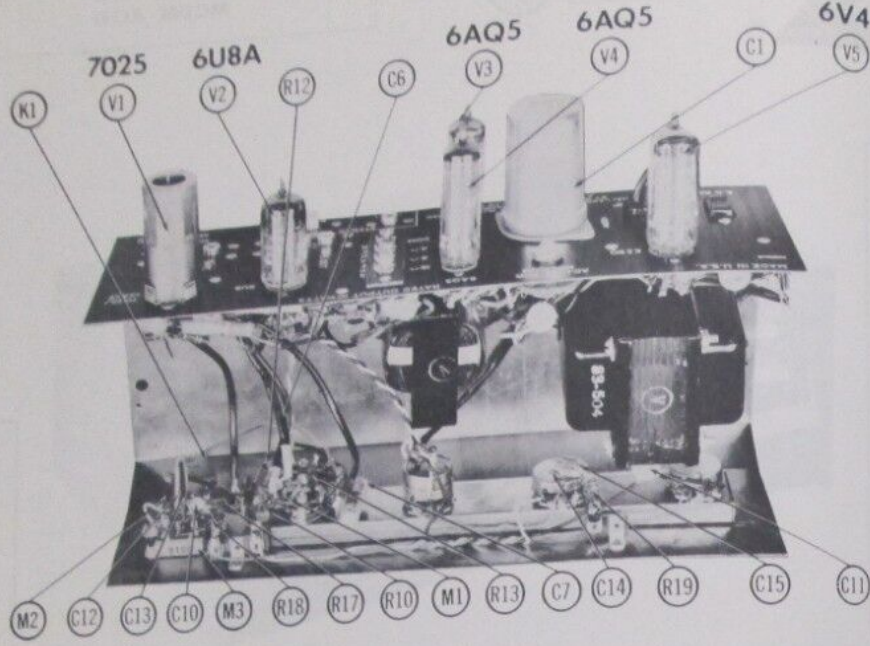
RATINGS		REPLACEMENT DATA		REPLACEMENT DATA		NOTES
ITEM No.	CAP. VOLT.	CHALLENGER PART No.	AEROVOX PART No.	CENTRALAB PART No.	COBELL PART No.	SPRAGUE PART No.
C4	200		P288H-022	DD-303	UN5022	MS-223
C5	1000		P488N-008	DD-482	CUB822	MS-231
C6	400		P288N-022	DD-203	CUB6068	MS-239
C7	200		P288H-022	DD-203	CUB2822	ETM-1068
C8	470			DD-471	CUB822	ETM-822
C9	4700			IR3014	IR3014	MS-347
C10	4700			IR3014	IR3014	MS-347
C11	4700			IR3014	IR3014	MS-347
C12	4700			IR3014	IR3014	MS-347
C13	4700			IR3014	IR3014	MS-347
C14	4700			IR3014	IR3014	MS-347
C15	4700			IR3014	IR3014	MS-347
C16	4700			IR3014	IR3014	MS-347
C17	4700			IR3014	IR3014	MS-347
C18	4700			IR3014	IR3014	MS-347
C19	4700			IR3014	IR3014	MS-347
C20	4700			IR3014	IR3014	MS-347
C21	4700			IR3014	IR3014	MS-347
C22	4700			IR3014	IR3014	MS-347

CONTROLS

RATINGS		REPLACEMENT DATA		REPLACEMENT DATA		INSTALLATION NOTES
ITEM No.	RESISTANCE	CHALLENGER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	HALOY PART No.	
R1	500K	V449	50-40	Q13-133	U48	Volume
R2	500K	V450	50-40	AAT-500K-2	Not Req.	
R3	500K	V450	50-40	57E-12	US-26	
R4	500K	V450	50-40	57E-12	US-26	
R5	500K	V450	50-40	57E-12	US-26	
R6	500K	V450	50-40	57E-12	US-26	
R7	500K	V450	50-40	57E-12	US-26	
R8	500K	V450	50-40	57E-12	US-26	
R9	500K	V450	50-40	57E-12	US-26	
R10	500K	V450	50-40	57E-12	US-26	
R11	500K	V450	50-40	57E-12	US-26	
R12	500K	V450	50-40	57E-12	US-26	
R13	500K	V450	50-40	57E-12	US-26	
R14	500K	V450	50-40	57E-12	US-26	
R15	500K	V450	50-40	57E-12	US-26	
R16	500K	V450	50-40	57E-12	US-26	
R17	500K	V450	50-40	57E-12	US-26	
R18	500K	V450	50-40	57E-12	US-26	
R19	500K	V450	50-40	57E-12	US-26	
R20	500K	V450	50-40	57E-12	US-26	
R21	500K	V450	50-40	57E-12	US-26	
R22	500K	V450	50-40	57E-12	US-26	
R23	500K	V450	50-40	57E-12	US-26	
R24	500K	V450	50-40	57E-12	US-26	
R25	500K	V450	50-40	57E-12	US-26	
R26	500K	V450	50-40	57E-12	US-26	
R27	500K	V450	50-40	57E-12	US-26	
R28	500K	V450	50-40	57E-12	US-26	
R29	500K	V450	50-40	57E-12	US-26	
R30	500K	V450	50-40	57E-12	US-26	
R31	500K	V450	50-40	57E-12	US-26	
R32	500K	V450	50-40	57E-12	US-26	
R33	500K	V450	50-40	57E-12	US-26	
R34	500K	V450	50-40	57E-12	US-26	

* Item 828 with CHL. "Black Label" controls and 829 with "White Label" controls.

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING	CHALLENGER PART No.	NOTES	ITEM No.	RATING	CHALLENGER PART No.	NOTES
R1	500K	V449	50-40	R21	500K	V449	50-40
R2	500K	V450	50-40	R22	500K	V450	50-40
R3	500K	V450	50-40	R23	500K	V450	50-40
R4	500K	V450	50-40	R24	500K	V450	50-40
R5	500K	V450	50-40	R25	500K	V450	50-40
R6	500K	V450	50-40	R26	500K	V450	50-40
R7	500K	V450	50-40	R27	500K	V450	50-40
R8	500K	V450	50-40	R28	500K	V450	50-40
R9	500K	V450	50-40	R29	500K	V450	50-40
R10	500K	V450	50-40	R30	500K	V450	50-40
R11	500K	V450	50-40	R31	500K	V450	50-40
R12	500K	V450	50-40	R32	500K	V450	50-40
R13	500K	V450	50-40	R33	500K	V450	50-40
R14	500K	V450	50-40	R34	500K	V450	50-40
R15	500K	V450	50-40	R35	500K	V450	50-40
R16	500K	V450	50-40	R36	500K	V450	50-40
R17	500K	V450	50-40	R37	500K	V450	50-40
R18	500K	V450	50-40	R38	500K	V450	50-40
R19	500K	V450	50-40	R39	500K	V450	50-40
R20	500K	V450	50-40	R40	500K	V450	50-40

* Some variations may use 300K in this application.

TRANSFORMER (POWER)

ITEM No.	RATING	CHALLENGER PART No.	NOTES	REPLACEMENT DATA	
				CHALLENGER PART No.	POWER
T1	100 VA	83-504	50-40	83-504	100 VA

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING	CHALLENGER PART No.	NOTES	REPLACEMENT DATA	
				CHALLENGER PART No.	POWER
T2	100 VA	83-504	50-40	83-504	100 VA

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	CHALLENGER PART No.	REPLACEMENT DATA
C1	Volume	50-40	U48	Volume

MISCELLANEOUS

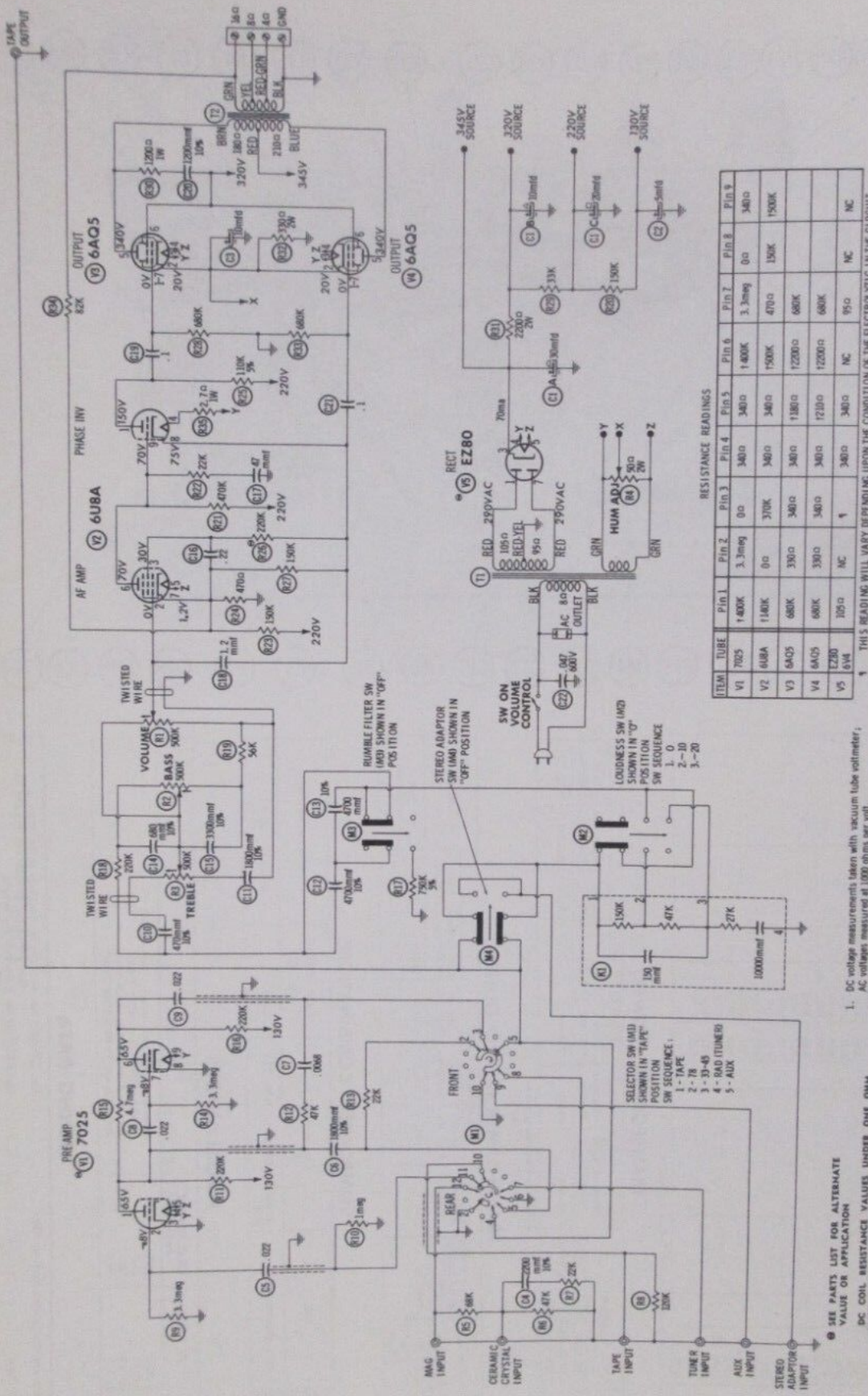
ITEM No.	PART NAME	CHALLENGER PART No.	REPLACEMENT DATA
M1	Resistor	50-40	50-40
M2	Resistor	50-40	50-40
M3	Resistor	50-40	50-40
M4	Resistor	50-40	50-40

WIRING DATA

ITEM No.	WIRING DATA
W1	50-40

CHASSIS—BOTTOM VIEW





- DC voltage measurements taken with vacuum tube voltmeter.
- AC voltage measured at 1000 ohms per volt.
- Resistor values are shown as bottom views.
- Line voltages are from socket pin to common negative.
- Nominal for transformer at 117 volts for voltage readings.
- Minimum for transformer and resistance readings.
- All controls at minimum, proper output load connected.

- 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)
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A. PHOTOFACT STANDARD NOTATION SCHEMATIC