

PHOTOFACT* Folder



DAVID BOGEN
MODEL PH10

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TONE SWITCH

VOLUME CONTROL
ON-OFF SWITCH

DAVID BOGEN MODEL PH10

TRADE NAME	David Bogen, Model PH10
MANUFACTURER	David Bogen Co., Inc., 663 Broadway, New York 12, N.Y.
TYPE SET	AC Operated Audio Amplifier.
TUBES (FOUR)	Types 6SL7GT AF Amp.-Phase Inverter, (2) 6V6GT Power Output, 5Y3GT Rectifier.

POWER SUPPLY 110-120 Volts AC

RATING .53 Amp. @ 117 Volts AC

CONNECTIONS

Input: The amplifier has a high impedance input. Connection is made from the radio output or phonograph pickup to the INPUT terminal by a single shielded wire using the single prong connector provided. For full output of the amplifier the input device must be capable of delivering approximately one volt across 500,000 ohms. Most crystal pickups, high output type magnetic pickups and most radio tuners can provide this voltage.

Output: Two voice coil output impedances, of 3.2 ohms and 8 ohms, respectively, are provided. Connections are made from COM. and the proper impedance tap directly to the speaker voice coil. Either PM speakers or speakers having their own field supply should be used.

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

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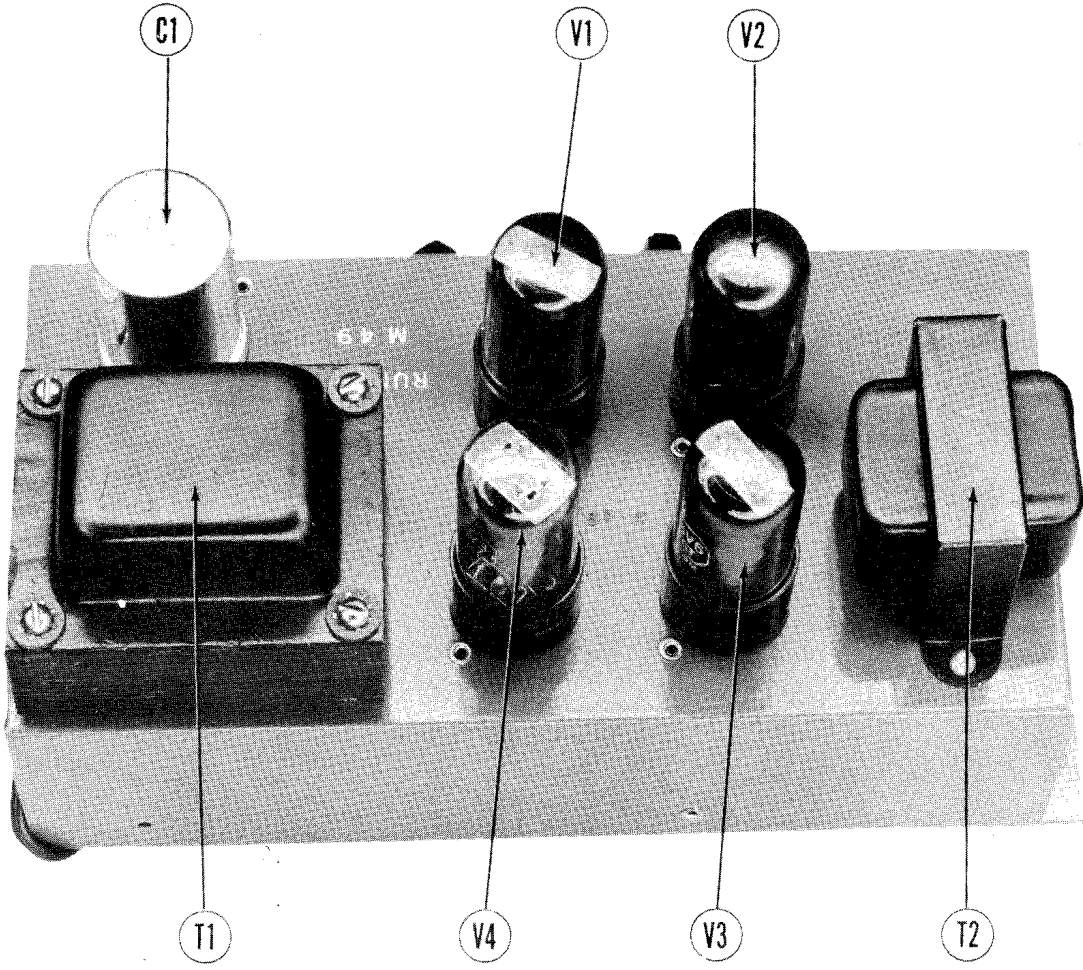
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DATE 10/49 SET #73 FOLDER #3

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

CHASSIS—TOP VIEW



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ITEM No.	USE	REPLACEMENT DATA			RMA BASE TYPE	INSTALLATION NOTES
		DAVID BOGEN PART No.	STANDARD REPLACEMENT	CORNELL DUBILIER PART No.		
V1	AF Amp.-Phase Inverter	6SL7GT	6SL7GT	UP1145	8BD	
V2	Power Output	6V6GT	6V6GT		7AC	
V3	Power Output	6V6GT	6V6GT		7AC	
V4	Rectifier	5Y3GT	5Y3GT		5T	

CAPACITORS

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

ITEM No.	RATING CAP. VOlt	REPLACEMENT DATA			SPRAGUE PART No.	ERIE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
		DAVID BOGEN PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.			
C1A	10		AP22J	UP1145	EL-210	Filter	
C1B	10					Filter	
C2	8					Decoupling	
C3	50		PR8845	BR845	UT-8	Output Cath. Bypass	
C4	50		PR850/50	BR505	TA-550	AF Cath. Bypass	
C5	.06		P488-05	GT455	TM-15	Audio Coupling	
C6	.06		1468-00035	5W574	TM-15	Audio Coupling	
C7	350		P688-006	GT455	1FN-335	Feedback	
C8	5		P488-02	GT455	MS-55	Feedback	
C9	.006		P488-03	GT455	TM-26	Tone Compensation Note	
C10	.03		P488-02	GT455	TM-13	Tone Compensation	
C11	.02		P488-01	GT455	TM-12	Tone Compensation	
C12	.1				TM-1	Line Filter	

Note. Some Models Use .005MFD In This Application.

CONTROLS

ITEM No.	RATING RESIST. WATTS	REPLACEMENT DATA			INSTALLATION NOTES
		DAVID BOGEN PART No.	IRC PART No.	CLAROSTAT PART No.	
RIA	500KΩ		Q13-133	M-60-Z	Volume control
B	Switch		76-1	SM-A	Attach to R1A per instructions

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA			IDENTIFICATION CODES
		DAVID BOGEN PART No.	IRC PART No.	DAVID BOGEN PART No.	
R2	330Ω			BM-2-330	AF Cathode
R3	1000Ω			BTS-1000	AF Cathode
R4	3300Ω			BTS-3300	AF Cathode
R5	220KΩ			BTS-220K	AF Plate
R6	22KΩ			BTS-22K	Phase Inv. Grid
R7	3900Ω			BTS-3900	Phase Inv. Cathode
R8	220KΩ			BTS-220K	Phase Inv. Plate
R9	470KΩ			BTS-470K	Output Grid
R10	470KΩ			BTS-470K	Output Grid
R11	250Ω			AB-250	Output Cathode Wire Wound
R12	2200Ω			BTS-2200	Feedback
R13	100KΩ			BTS-100K	Feedback
R14	15KΩ			BTS-15K	Tone Compensation
R15	15KΩ			BTS-15K	Tone Compensation
R16	6800Ω			BTS-6800	Tone Compensation
R17	4700Ω			BW-2-4700	Filter
R18	500Ω			AB-500	Filter
R19	250Ω			AB-250	Filter

PARTS LIST AND DESCRIPTIONS (Continued)

CHASSIS—BOTTOM VIEW

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA		CHICAGO PART No.
	PRI.	SEC. 1	SEC. 2	DAVID BOGEN PART No.	STANCOR PART No.	
T1	117VAC @ .53A	250VCT 070A DC @ 2A	5VAC @ 1.2A	T362B	P-6012	P-2952 PH-90T

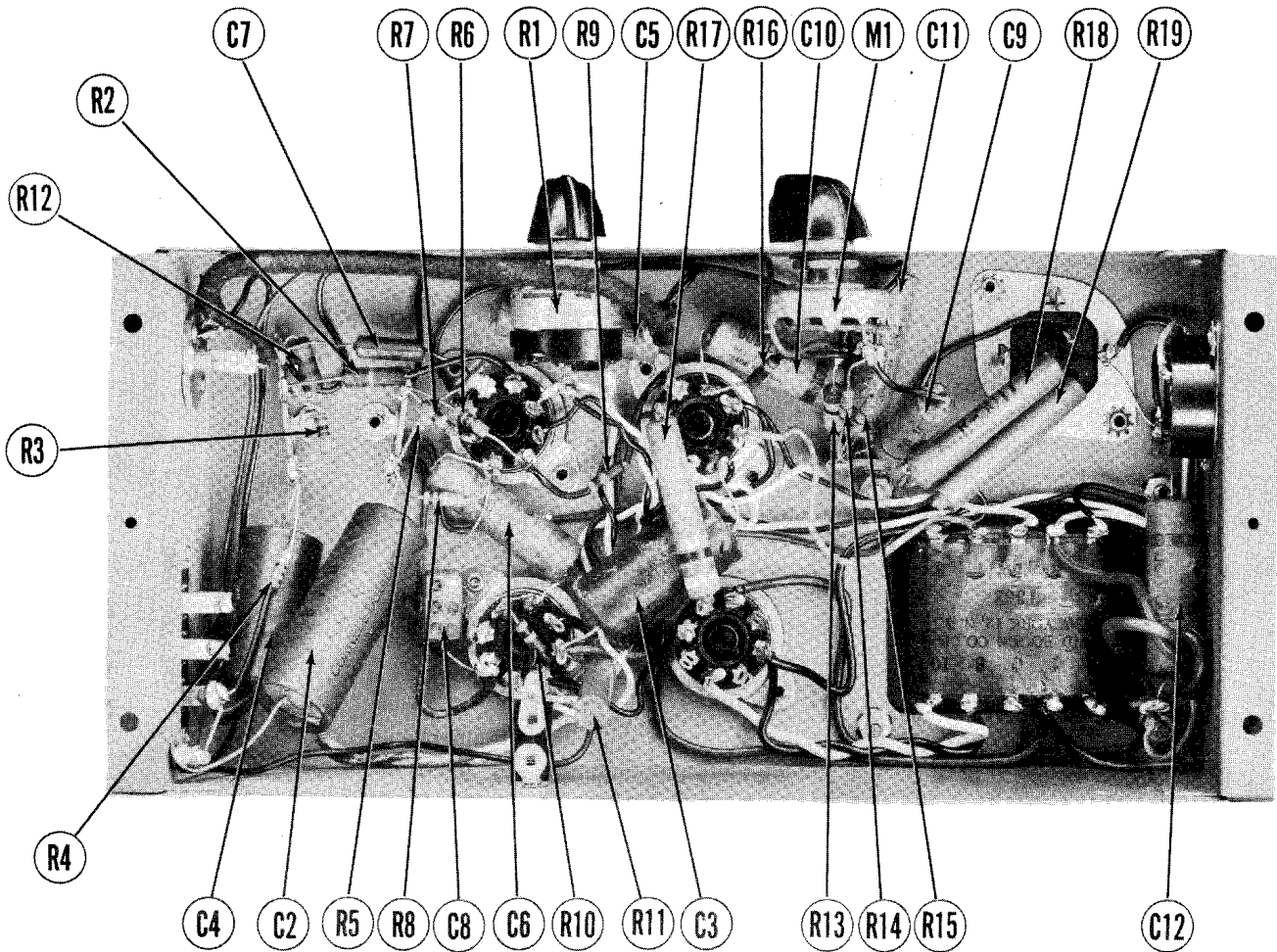
† Drill New Mounting Holes.

TRANSFORMER (AUDIO OUTPUT)

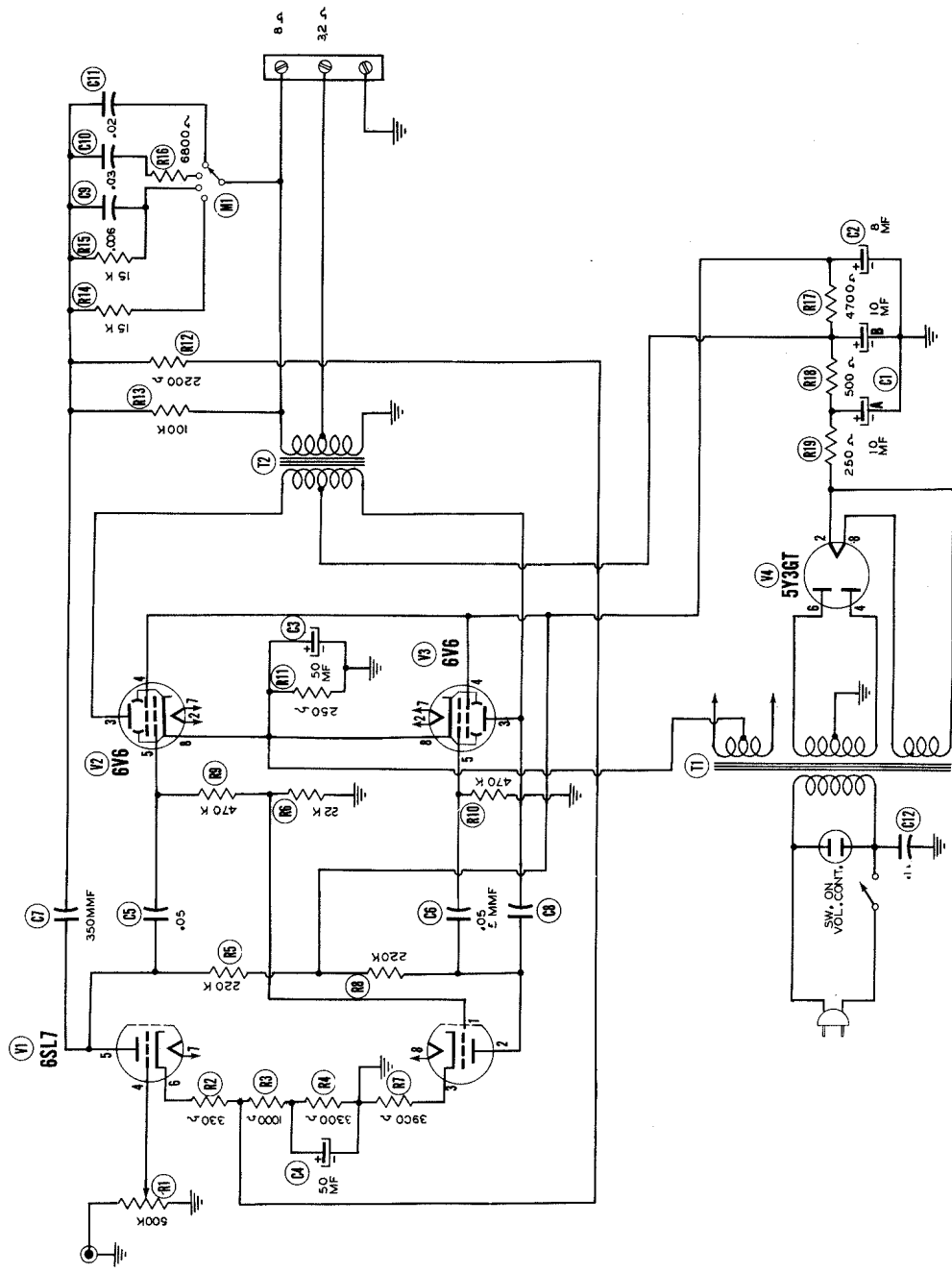
ITEM No.	RATING			REPLACEMENT DATA		INSTALLATION NOTES
	IMPEDANCE	DC RES.	DAVID BOGEN PART No.	STANCOR PART No.	CHICAGO PART No.	
T2	9.2KΩ C1	390Ω 8Ω	390Ω CT	A-3870	A-2904†	RO-110† † Drill One New Mtg. Hole

MISCELLANEOUS

ITEM No.	PART NAME	DAVID BOGEN PART No.	NOTES
M1	Switch		Tone



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VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	6SL7GT	0V	1.67VDC	2VDC	0V	1.67VDC	.2VDC	#17VDC	#17VDC
V 2	6V6GT	0V	#17VDC	2.80VDC	2.80VDC	0V	0V	#17VDC	1.7VDC
V 3	6V6GT	0V	#17VDC	31.0VDC	2.80VDC	0V	0V	#17VDC	1.7VDC
V 4	5Y3GT	0V	3.75VDC	0V	3.60VAC	3.75VDC	3.60VAC	0V	3.75VDC

6.3VAC Measured Across Filament.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	6SL7GT	22KΩ	1220KΩ	4KΩ	5Ω	1220KΩ	4.5KΩ	250Ω	250Ω
V 2	6V6GT	0Ω	250Ω	1900Ω	15.5KΩ	500KΩ	Inf.	250Ω	250Ω
V 3	6V6GT	0Ω	250Ω	1900Ω	15.5KΩ	470KΩ	470KΩ	250Ω	250Ω
V 4	5Y3GT	Inf.	100KΩ	Inf.	150Ω	100KΩ	150Ω	Inf.	100KΩ

† Measured from Pin 8 of V4.

- 1 - DC Voltage measurements are at 20,000 ohms per volt; 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 - Line voltage maintained at 117 volts for voltage readings.
- 5 - Nominal tolerance on component values makes possible a variation of ± 15% in voltage and resistance readings.
- 6 - Volume control at minimum, proper output load connected.