

VOLUME CONTROL
TONE CONTROL

ON-OFF SWITCH

TUNING CONTROL

MOPAR
MODEL 803 (PHILCO PD-4908)

TRADE NAME	Mopar, Model 803 (Philco PD-4908)
MANUFACTURER	Chrysler Corporation, Detroit 31, Michigan
TYPE SET	Battery Operated Custom Built Automotive Superheterodyne Receiver
TUBES (Eight)	Types: 6BA6 RF Amp., 6BE6 Converter, 6BA6 IF Amp., 6AV6 Det-AVC-AF, 6C4 Phase Inverter (2) 6AQ5 Power Output, 6X4 Rectifier
POWER SUPPLY	6 Volt Storage Battery
TUNING RANGE—BROADCAST	530-1605KC
	RATING 8 Amps. @ 6 Volts DC

To set pointer turn tuning slugs fully closed and set pointer to last reference mark at low frequency end of dial. 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. The dummy antenna used consists of a 40MMF capacitor in series with the high side of the signal generator and the antenna receptacle. Connect another 40MMF capacitor from the antenna receptacle to chassis. (Bottom plate must be on.)

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	DEPRESS PUSH BUTTON	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .05MFD	High side to Pin 7 (grid) of 6BE6 (V2). Low side to chassis.	455KC	Manual	1600KC	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2. Dummy (See Above)	High side to antenna receptacle. Low side to chassis.	"	Any Station Selector Button		"	A5	Adjust for <u>minimum</u> output.
3. "	"	1605KC	Manual	High frequency end of dial.	"	A10	Adjust for maximum output.
4. Dummy (See Above)	High side thru dummy to antenna receptacle. Low side to chassis.	580KC	Manual	580KC	"	A6	Rock tuning gang and adjust for maximum output.
5. Dummy (See Above)	"	1605KC	"	Tune for maximum signal.	"	A7, A8	Adjust for maximum output.
6. Dummy (See Above)	"	1605KC	PB#5	Tune PB for maximum signal.	"	A9	Adjust for maximum output. Repeat steps 3, 4 and 5 until no further improvement can be made.

7. Install receiver in car, and manually tune in a weak station near 1400KC. Adjust A7 for maximum volume. Depress PB#5 and tune in same weak station near 1400KC and adjust A9 for maximum volume.

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PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		BMA BASE TYPE	INSTALLATION NOTES
		MOPAR-Philco PART No.	STANDARD REPLACEMENT		
V1	RF Amp. Converter	6B8G	6B8G	7BK	
V2	IF Amp.	6BE6	6BE6	7CK	
V3	DET.-AVC.-AF	6BA6	6BA6	7EK	
V4	Phase Inverter	6AV6	6AV6	7BT	
V5	Power Output	6AQ5	6CA4	6B3	
V6	Power Output Rectifier	6AQ5	6AQ5	7BZ	
V7	Power Output Rectifier	6AQ5	6AQ5	7E2	
V8	Rectifier	6X4	6X4	SBS	

CAPACITORS

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

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA		CORNEIL DUBILIER PART No.	ERIE PART No.	SOLAR PART No.	SPRAGUE PART No.	IDENTIFICATION AND INSTALLATION NOTES
		MOPAR-Philco PART No.	AEROVOX PART No.					
C1A	20	60-0150	AF42HG2A	UP			EL-415	Filter
C1B	350			1145C				Filter
C1C	350							Filter
C1D	300							Filter
C2	25	61-0122	P288-047	G12SS5	ST-4-05	TM-15	TM-15	Output Cath. Bypass
C3	200	61-0122	P288-047	G12SS5	ST-4-05	TM-15	TM-15	Decoupling
C4	200	60-10205	1468-0002	5M5T2	MO.5-32	1FM-32	1FM-32	RF Coupling
C5	500	61-0122	P288-047	G12SS5	ST-4-05	TM-15	TM-15	AVC Filter
C6	200	80-10105	1468-0001	5M5T1	MO.5-31	1FM-31	1FM-31	Osc. Grid Cap
C7	54	61-0149	P288-047	G12SS5	ST-4-05	TM-15	TM-15	Fixed Trimmer + 5%
C8	200	61-0122	P288-047	G12SS5	ST-4-05	TM-15	TM-15	IF Cath. Bypass
C9	200	45-3502	P688-0047	G12D5	ST-6	TM-25	TM-25	Audio Coupling
C10	500	45-3602	1468-0002	5M5T2	MO.5-32	1FM-32	1FM-32	AF Plate Bypass
C11	400	61-0120	P488-01	G14S1	ST-4-01	TM-11	TM-11	Tone Compensation
C12	120	61-0125	P488-25	G12P25	ST-2-25	68P24	68P24	Tone Compensation
C13	200	61-0113	P288-1	G12P1	ST-2-1	TM-1	TM-1	Tone Compensation
C14	600	45-3502	P688-0047	G12D5	ST-6-005	TM-25	TM-25	Audio Coupling
C15	400	61-0120	P488-01	G14S1	ST-4-01	TM-11	TM-11	Audio Coupling
C16	400	61-0120	P488-01	G14S1	ST-4-01	TM-11	TM-11	Audio Coupling
C17	1000	45-3500-7	P1088-0068	G116D6	STM-16	MB-26	MB-26	Output Plate Bypass
C18	1600	61-0109	P1688-0033	G116D3	STM-16	MB-23	MB-23	Buffer
C19	500	62-13300	1468-0003	5M6T3	MO.5-33	1FM-335	1FM-335	RF Bypass
C20	500	62-13300	1468-0003	5M6T3	MO.5-33	1FM-335	1FM-335	RF Bypass

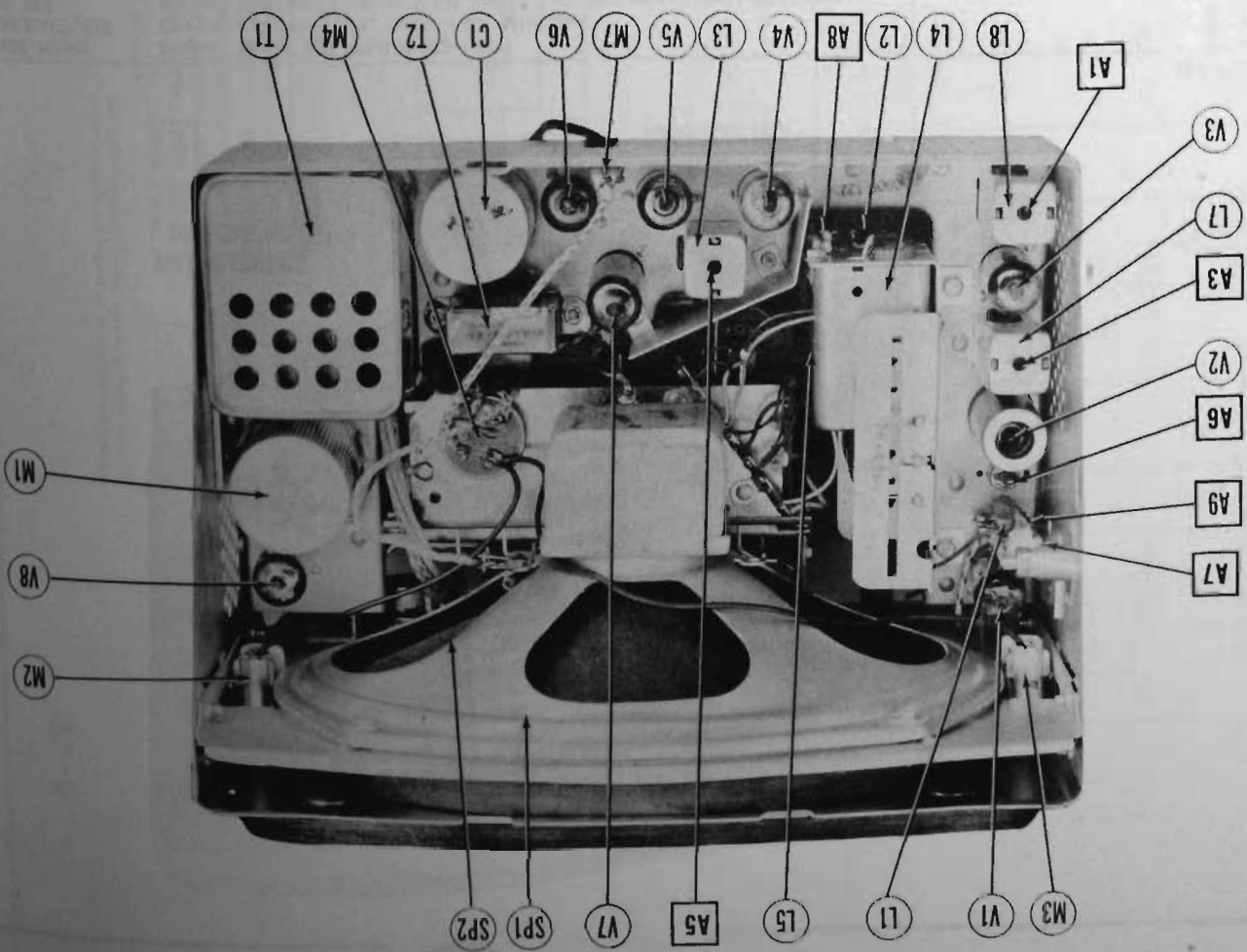
CONTROLS

ITEM No.	RATING RESISTANCE ANCE	WATTS	REPLACEMENT DATA		CLAROSTAT PART No.	INSTALLATION NOTES
			MOPAR-Philco PART No.	IRC PART No.		
RLA	350K Ω	$\frac{1}{2}$	35-5557-4			Volume control (Dual Concentric)
B	4 Meg.	$\frac{1}{2}$				Tone control. (Open at center.)

RESISTORS

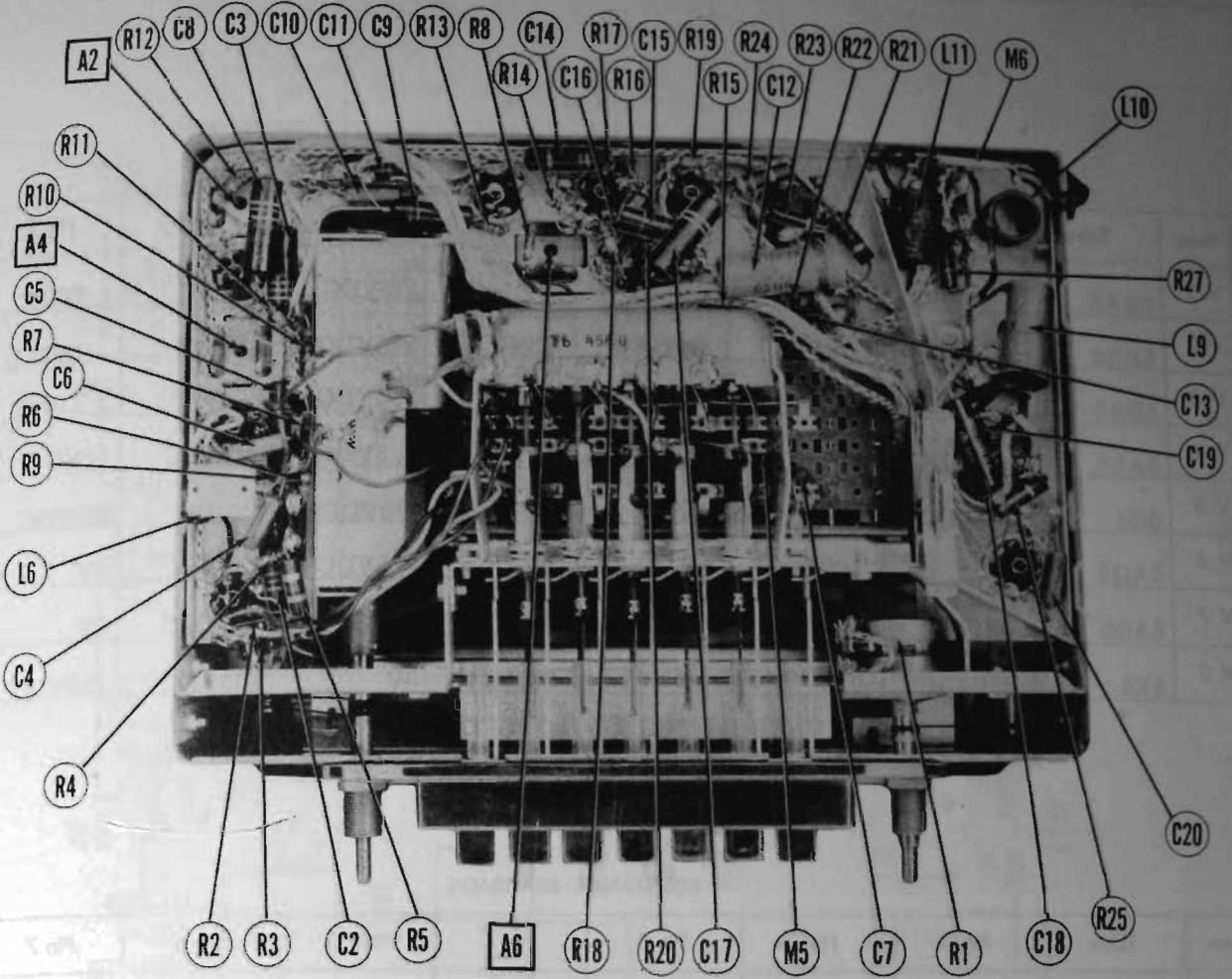
ITEM No.	RATING RESISTANCE ANCE	WATTS	REPLACEMENT DATA		IRC PART No.	IDENTIFICATION CODES
			MOPAR-Philco PART No.	IRC PART No.		
R2	330 Ω	$\frac{1}{4}$	66-1333340	EM-1-330	FF	Gathode
R3	330 Ω	$\frac{1}{4}$	66-1333340	EM-1-330	FF	Gathode
R4	10K Ω	$\frac{1}{4}$	66-3103340	EM-1-10K	FF	Plate
R5	27K Ω	$\frac{1}{4}$	66-3273340	BTA-27K	Screen Dropping	
R6	68K Ω	$\frac{1}{4}$	66-3683340	BTS-68K	Converter Grid	

CHASSIS-TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

CHASSIS—BOTTOM VIEW



RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		MOPAR-PHILCO PART No.	IRC PART No.	
R7	2.2 Meg.	66-5223340	BTS-2.2 Meg.	AVC Network
R8	10K	66-3103340	BTS-10K	Rf Coil Shunt
R9	22K	66-3223340	BTS-22K	Osc. Grid
R10	1 Meg.	66-5103340	BTS-1 Meg.	AVC Network
R11	100K	61-0122	BTS-100K	IF Cathode
R12	22K	66-3223340	BTS-22K	Diode Filter
R13	15 Meg.	66-6153340	BTS-15 Meg.	AF Grid
R14	180K	66-4223340	BTS-180	AF Plate
R15	180K	66-1183340	BW-1-180	Tone Compensation
R16	220K	66-6153340	BTS-15 Meg.	Phase Inverter Grid
R17	220K	66-4223340	BTS-220K	Phase Inverter Cathode
R18	470K	66-4473340	BTS-470K	Output Grid
R19	470K	66-4473340	BTS-470K	Output Grid
R20	100K	66-1334340	BTA-330K	Output Cathode
R21	220K	66-2223340	BW-1-1000	Feedback
R22	220K	66-2223340	BW-1-1000	Filter
R23	100K	66-2474340	BW-1-4700	Filter
R24	470K	66-1104340	BW-1-100	Hash Suppression
R25	100K	66-1104340	BW-1-100	Hash Suppression
R26	100K	66-1104340	BW-1-100	Hash Suppression
R27	100K	66-1104340	BW-1-100	Hash Suppression

TRANSFORMER (VIBRATOR)

ITEM No.	RATING	REPLACEMENT DATA			MOPAR-PHILCO PART No.	CHICAGO PART No.	MERIT PART No.
		SEC. 1	SEC. 2	SEC. 3			
T1	5VDC 350VCT 4.2A DC				32-8314-3	VT-5	

TRANSFORMER (OUTPUT)

ITEM No.	RATING	REPLACEMENT DATA			MOPAR-PHILCO PART No.	CHICAGO PART No.	MERIT PART No.	INSTALLATION NOTES
		MOPAR-PHILCO PART No.	CHICAGO PART No.	MERIT PART No.				
T2	IMPEDANCE PRI. SEC. PRI. SEC. 7.5K 3.4K 400 23 CT	32-8316-3	A-3856*	RQ-302*	A-2900*			*Drill One New Mounting Ho

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA		MOPAR-PHILCO PART No.	JENSEN PART No.	QUAM PART No.	INSTALLATION NOTES
		MOPAR-PHILCO PART No.	PHILCO PART No.				
SP1	FIELD V.C. IMP. FN 3.4K	36-1631	ST-810	MOD.P68-V	69A3		
SP2	COME DIA. V.C. DIA. 6"x9"						

R F COILS

ITEM No.	USE	DC RES.	REPLACEMENT DATA		MOPAR-PHILCO PART No.	MEISSNER PART No.	INSTALLATION NOTES
			PRI.	SEC.			
L1	Ant. Choke	62			65-0437		L2, 4, and 5 are permeability tuned, and 4r Gears. Use Only With Push Button Tuning Used Only With Manual Tuning
L2	Ant. Coil	02			65-0443-16		
L3	Rf Coil	302			32-4349A		
L4	Rf Coil	112			56-3612-7		
L5	Osc. Shunt	42			56-3612-7		
L6	Osc. Coil	52			32-4110-2		
L7	Input IF	122			32-4160A		
L8	Output IF	162			32-420A		
L9	Vibrator	.22			32-4170-2		
L10	Noise Choke	02				16-6668	
L11	Noise Choke	02			32-1644		

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	6BA6	-.1VDC	0V	6VDC	0V	175VDC	55VDC	1.6VDC
V 2	6BE6	§-2.4VDC	0V	6VDC	0V	230VDC	55VDC	-.5VDC
V 3	6BA6	0V	0V	6VDC	0V	230VDC	55VDC	2.3VDC
V 4	6AV6	-.7VDC	0V	0V	6VDC	-.5VDC	-.5VDC	90VDC
V 5	6C4	125VDC	190VDC	6VDC	0V	125VDC	.2VDC	100VDC
V 6	6AQ5	0V	14VDC	6VDC	0V	245VDC	230VDC	0V
V 7	6AQ5	0V	14VDC	0V	6VDC	245VDC	230VDC	0V
V 8	6X4	290VAC	0V	0V	6VDC	0V	290VAC	250VDC

§ TAKEN WITH VACUUM TUBE VOLTMETER.
ALL MEASUREMENTS TAKEN IN MANUAL OPERATION POSITION.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	6BA6	800KΩ	0Ω	.2Ω	0Ω	*16KΩ	*34KΩ	650Ω
V 2	6BE6	22KΩ	.8Ω	.2Ω	0Ω	*1000Ω	*34KΩ	68KΩ
V 3	6BA6	12Ω	0Ω	.2Ω	0Ω	*1000Ω	*34KΩ	1000Ω
V 4	6AV6	15Meg	0Ω	0Ω	.2Ω	320KΩ	320KΩ	*225KΩ
V 5	6C4	*220KΩ	*6KΩ	.2Ω	0Ω	*220KΩ	15Meg	220KΩ
V 6	6AQ5	470KΩ	330Ω	.2Ω	0Ω	*210Ω	*1000Ω	470KΩ
V 7	6AQ5	470KΩ	330Ω	0Ω	.2Ω	*180Ω	*1000Ω	470KΩ
V 8	6X4	430Ω	INF	0Ω	.2Ω	INF	400Ω	120KΩ

* MEASURED FROM PIN 7 OF V8.

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. Battery voltage maintained at 6.3 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 maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS (Continued)

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS/QUANTITY	REPLACEMENT DATA			INSTALLATION NOTES
			MOPAR-PHILCO PART No.	CORNELL PART No.	RADIART PART No.	
M1	Int.	6.0V	83-0026 or 83-0025	C26P	5326P	

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					MOPAR-PHILCO PART No.		
M2	Bayonet	6-8V	0.2A	White	34-2039		Type #51
M3	Bayonet	6-8V	0.2A	White	34-2039		Type #51

MISCELLANEOUS

ITEM No.	PART NAME	MOPAR-PHILCO PART No.	NOTES
M4	Switch		
M5	Push Button Assembly	76-4560	On-Off Tuning Unit
M6	Spark Plate	30-1235	
M7	Spark Plate	30-1235	
M8	Fuse	57-4273	1.4 Amp.
	Dial Scale	56-5681	
	Dial Pointer	56-6684	

PUSHBUTTON ADJUSTMENTS

The ranges of the pushbuttons are as follows.

PB#1	53C-1020KC
PB#2	61C-1200KC
PB#3	700-1410KC
PB#4	74C-1500KC
PB#5	840-1605KC

Make up a list of five stations desired to be received by pushbutton making sure their frequencies fall within the limits of the individual pushbuttons. Adjustment of the individual pushbuttons is as follows:

1. Allow receiver to warm up for about 15 minutes and remove button knobs.
2. Depress the "Dial" button and tune in desired station within the range of PB#1.
3. Depress PB#1 and pull out on the knurled button and tune in the station obtained in Step 2.
4. Repeat the procedure in Steps 2 and 3 to set up the remaining pushbuttons.

