

PHILCO TRANSITONE SERVICE BROADCAST

APRIL, 1935

MODEL 805 RECEIVER

THE PHILCO Transitone Model 805 is PHILCO's newest in automobile radio. It is a highly developed super-heterodyne single-unit type Receiver with all the outstanding features required in such a fine instrument.

The Receiver, speaker and full-wave PHILCO Vibrator are housed in a rugged, compact, fully shielded container, which is designed for quick and easy installation on the dash of all automobiles. When installed in the car, the loud speaker faces the front seat, so that the extremely powerful PHILCO electro-dynamic speaker, concealed behind an artistic grille, delivers its full-toned reproduction toward the occupants of the car with utmost fidelity.

All tubes used are the latest PHILCO high-efficiency tubes, designed especially for automobile radio.

PHILCO's system of automatic volume control used in this Receiver not only gives that smooth, elastic control which counteracts fading while driving along and prevents blasting of local stations, but also subdues the harsh interference usually present between stations.

The new Receiver is ALL-ELECTRIC, operating entirely from the car battery system. The full-wave PHILCO Vibrator is built in as an integral part of the Receiver.

Interference filters to cut out the motor interference set up by the car ignition system and specially designed shielding make the Receivers especially easy to install.

I. F. TRANSFORMER AND PADDERS

The I. F. transformers are assembled complete with padding condensers.

The padders are placed in the top of the shield can, one above the other.

The primary padder is adjusted by means of the screw slot, accessible through the hole in the top of the shield can. The secondary padder is adjusted by means of the small hex nut, also accessible through the hole in the top of the shield. (See Figs. 1 and 2.)

The coil windings terminate in leads instead of terminals or lugs. The color scheme of the leads is given in Fig. 1.

If replacements are ever necessary, replace the entire coil assembly 32-1650 for the first I. F. stage and 32-1651 for the second I. F. stage. Neither the coil nor the padders will be furnished separately. Order only by the above numbers.

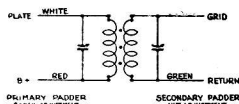


FIGURE 1

MODEL 805 ADJUSTMENTS

All adjustments have been carefully checked at the factory. If, however, it is found necessary to readjust the padding condensers, this procedure must be followed carefully. Do not attempt to make any adjustments until the procedure is clearly understood or without the use of a good oscillator or signal generator and output meter. The PHILCO set Tester 048 is highly recommended for this procedure and for all service work.

The Receiver must be connected to a six-volt storage battery and set up for operation. It is assumed that tubes have been checked and that the Receiver is in good condition except for the padding adjustments.

Remove the cover from the Receiver and disconnect the grid clip from the 78 tube, I. F. stage. (For location see Fig. 2)

Set up the signal generator and adjust it to exactly 260 K. C. Connect the generator lead to the grid cap of the 78 tube, and ground the shield to the Receiver housing.

Connect one lead from the output meter to the plate of the 41 tube and the other lead to the Receiver housing. The Receiver volume control must be turned to approximately full volume, and the attenuator in the generator set for a half-scale reading of the output meter.

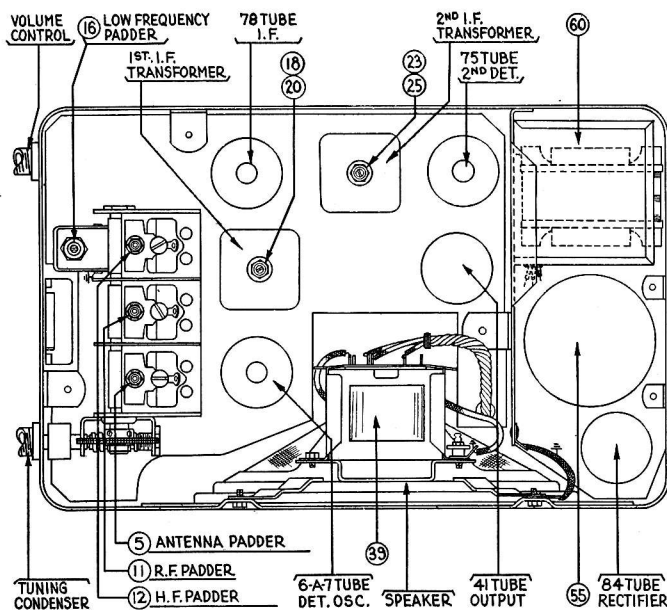


FIGURE 2

The secondary nut padder 25 must be adjusted for maximum reading in the output meter. Then adjust the primary screw padder 23 for maximum reading.

Remove the generator lead from the 78 tube and reconnect the grid clip.

Disconnect the grid clip from the 6A7 tube, and connect the generator lead to the grid cap of this tube. The secondary nut padder 20 must be adjusted for maximum reading in the output meter. Then adjust the primary screw padder 18 for maximum reading.

Readjust padders 25 and 23 for maximum reading on the output meter.

After padding the second I. F. stage, remove the generator lead from the 6A7 tube and reconnect the grid clip. Adjust the generator to 1600 K. C., and then connect the generator lead to the antenna lead, using a 150 mmfd. condenser in series between the two leads. Ground the shield to the Receiver housing.

Turn the Tuning Condenser Plates fully out of mesh.

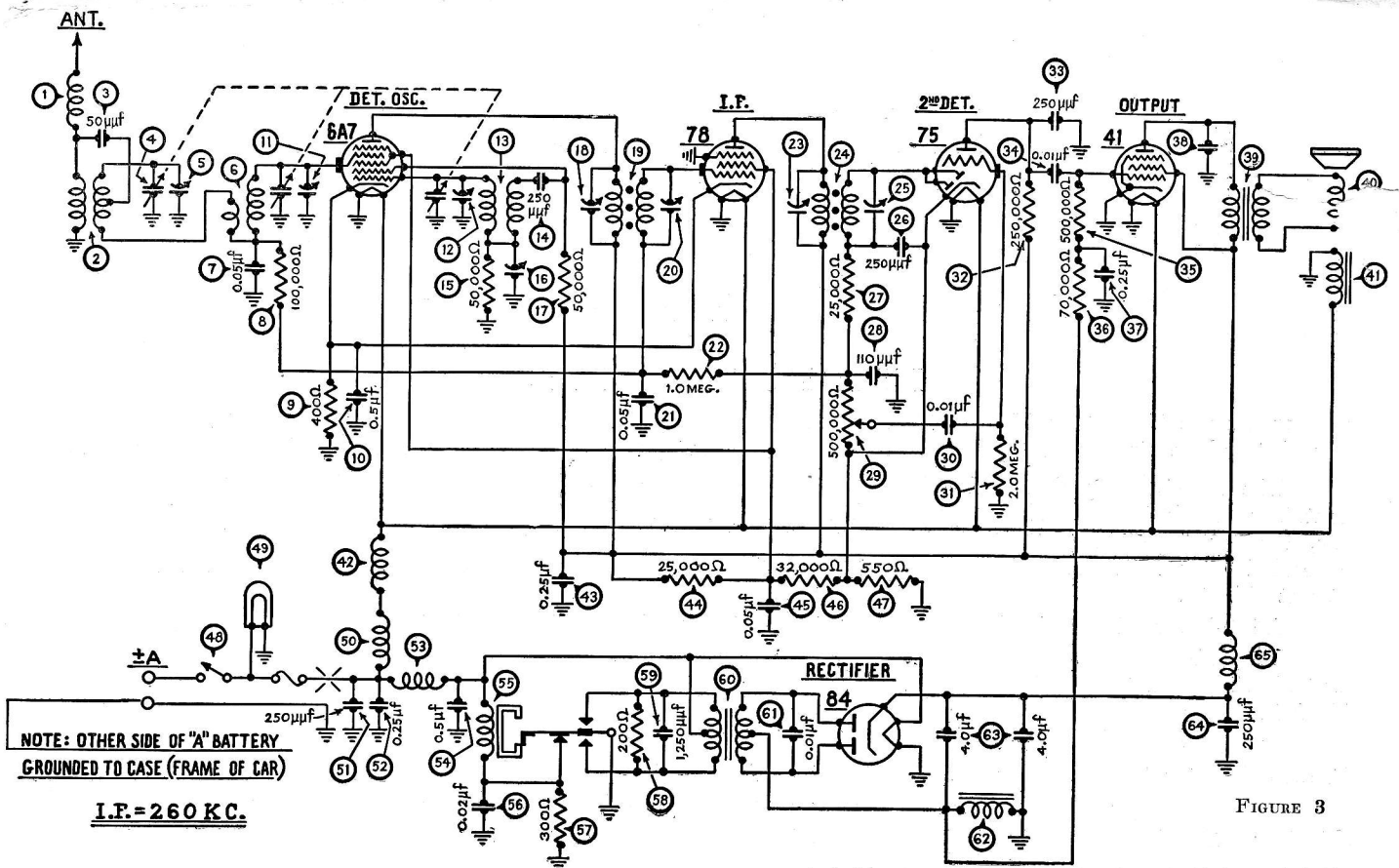


FIGURE 3

I.F. = 260 K.C.

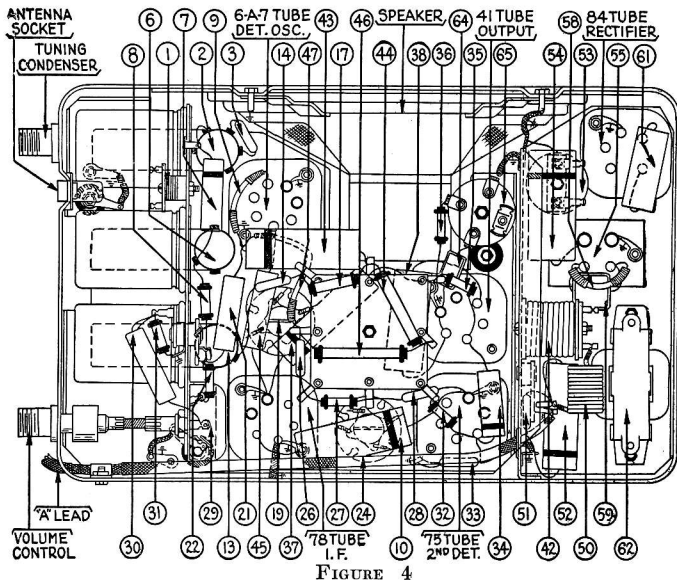


FIGURE 4

PARTS LIST

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Choke	32-1372	44	Resistor (25,000 ohms)	3656
2	Antenna Transformer	32-1655	45	Condenser (.05 mfd.)	30-4020
3	Condenser (50 mmfd.)	4587	46	Resistor (32,000 ohms)	3525
4	Tuning Condenser	31-1483	47	Resistor (550 ohms)	33-3031
5	First Padder (on tun. cond.)	...	48	On-Off Switch Assembly	42-5336
6	R. F. Transformer	32-1656	49	Pilot Lamp	34-2039
7	Condenser (.05 mfd.)	30-4020	50	"A" Choke	32-1644
8	Resistor (100,000 ohms)	6099	51	Condenser (250 mmfd.)	30-1032
9	Resistor (400 ohms)	33-3016	52	Condenser (.25 mfd.)	30-4146
10	Condenser (.5 mfd.)	30-4227	53	Vibrator Choke	32-1625
11	Second Padder (on tun. cond.)	...	54	Condenser (.5 mfd.)	30-4227
12	Third Padder (on tun. cond.)	...	55	Vibrator	38-5036
13	Oscillator Transformer	32-1657	56	Condenser (.02 mfd.)	30-4039
14	Condenser (250 mmfd.)	30-1032	57	Resistor (300 ohms)	33-3010
15	Resistor (50,000 ohms)	33-1163	58	Resistor (200 ohms)	7217
16	Fourth Padder (on tun. cond.)	...	59	Condenser (1250 mmfd.)	5886
17	Resistor (50,000 ohms)	6098	60	Power Transformer	32-7352
18	Padder (Pri. 1st I. F. Trans.)	...	61	Condenser (.01 mfd.)	30-4051
19	First I. F. Transformer	32-1650	62	Filter Choke	32-7351
20	Padder (Sec. 1st I. F. Trans.)	...	63	Filter Condenser (4-4 mfd.)	30-2115
21	Condenser (.05 mfd.)	30-4020	64	Condenser (250 mmfd.)	30-1032
22	Resistor (1,000,000 ohms)	33-1096	65	"B" Choke	32-1281
23	Padder (Pri. 2nd I. F. Trans.)	...		Control Assembly	42-5331
24	Second I. F. Transformer	32-1651		Glass and Dial Assembly	27-7835
25	Padder (Sec. 2nd I. F. Trans.)	...		Pointer Assembly	42-5335
26	Condenser (250 mmfd.)	30-1032		Bezel Plate	28-7108
27	Resistor (25,000 ohms)	33-1013		Knobs	27-4187
28	Condenser (110 mmfd.)	30-1031		Keys	28-2782
29	Volume Control	38-6635		Control Mtg. Bracket (dash)	29-2773
	(500,000 ohms)	38-6635		Control Mtg. Bracket (steering)	6035
30	Condenser (.01 mfd.)	30-4124		Steering Mtg. Kit (28")	45-1133
31	Resistor (2,000,000 ohms)	33-1025		Studs (Set Mtg.)	28-6272
32	Resistor (250,000 ohms)	33-1097		Nuts (Set Mtg.)	W98A
33	Condenser (250 mmfd.)	30-1032		Spark Plug Resistor	33-1195
34	Condenser (.01 mfd.)	30-4169		Distributor Resistor	33-1196
35	Resistor (500,000 ohms)	6097		Interference Condenser	30-4007
36	Resistor (70,000 ohms)	33-1115		Fuse	7227
37	Condenser (.25 mfd.)	30-4146		Fuse Insulator	27-7729
38	Condenser (8000 mmfd.)	30-4317		Antenna Lead	38-5131
39	Output Transformer	32-7019		Flexible Shaft (21")	28-8354
40	Cone and Voice Coil	36-3406		Flexible Shaft (28")	28-8355
41	Field Coil Assembly	36-3405		Lock Cylinder Assembly	42-5337
42	"A" Choke	32-1377			
43	Condenser (.25 mfd.)	30-4134			

With the tuning condenser in this position, adjust the high-frequency padder 12 until the maximum reading is obtained in the output meter. This is the true setting for 1600 K. C., 160 on the dial scale. Adjust the padders 11 and 5 in the same manner.

Turn the tuning condenser plates in mesh to approximately 580 on the dial scale, and adjust the signal generator to 580 K. C. Roll the tuning condenser and adjust the series padder 16 for the maximum meter reading.

Readjust the padder 12 at 1600 K. C.

Tune the condenser to 1400 K. C. and adjust the padders 11 and 5 for the maximum reading.

If this procedure has been carefully followed and an accurately calibrated oscillator or signal generator used, the Receiver will be adjusted properly.

NOTE: In the March 1935 "SERVICE BROADCAST (Figure 1) The 250 mmfd. condenser should be 110 mmfd. and the other condenser should be 250 mmfd. Also in Fig. 1 the High Frequency Padder 14 and the Antenna Padder 4 should be reversed.