

# PHILCO TRANSITONE SERVICE BROADCAST

FEBRUARY, 1934

## MODEL 800 RECEIVER

**T**HE MODEL 800 represents the latest developments in single-unit automobile radio. Compact and easy to install, its performance is amazing.

A superheterodyne, using seven of the latest tubes designed for automobile radio, it has Class B amplification with tremendous power output and is equipped with a full-size electro dynamic speaker, the same type as used in high-priced home radio Receivers.

Four-point tone control is provided to satisfy the individual preference. Greater sensitivity, a three-section tuning condenser giving improved selectivity and fidelity, inherently quiet circuits and all the other improvements, make this model the outstanding automobile radio.

Added to this, the ease of installation characteristic of this model (only one unit to install, one lead to the antenna and one lead to the ammeter) makes it the most desirable one to sell, install or own.

### I. F. TRANSFORMER AND PADDERS

The new style I. F. transformer complete with padders is used in the Model 800.

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 32-1236 for the first I. F. stage and 32-1237 for the second I. F. stage. Neither the coil nor the padders will be furnished separately. Order only by the above numbers.

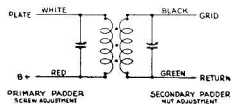


FIG. 1

### MODEL 800 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 turned on 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 speaker lid from the Receiver and disconnect the antenna lead from the Receiver. Remove the grid cap from the 6A7 tube (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 6A7 tube. (See Fig. 2.) The output meter must be connected by means of an adapter to the small prong of the speaker plug and to the chassis.

The Receiver volume control must be turned on to approximately full volume and the attenuator in the generator set for a half-scale reading of the output meter.

The padders 25 and 27 are adjusted first (Figs. 2 and

3.) Turn the adjusting screw 25 all the way in. A metal screw driver can be used for this. Then, with generator attenuator set so there is approximately half-scale reading, adjust the nut 27 with a fibre wrench for the maximum reading on the output meter.

Then adjust the screw 25 for maximum reading on the meter. This adjustment is critical. Note the maximum reading obtainable and then turn the screw in again and readjust, just bringing the adjustment up to the maximum reading. Do not pass it and then back off.

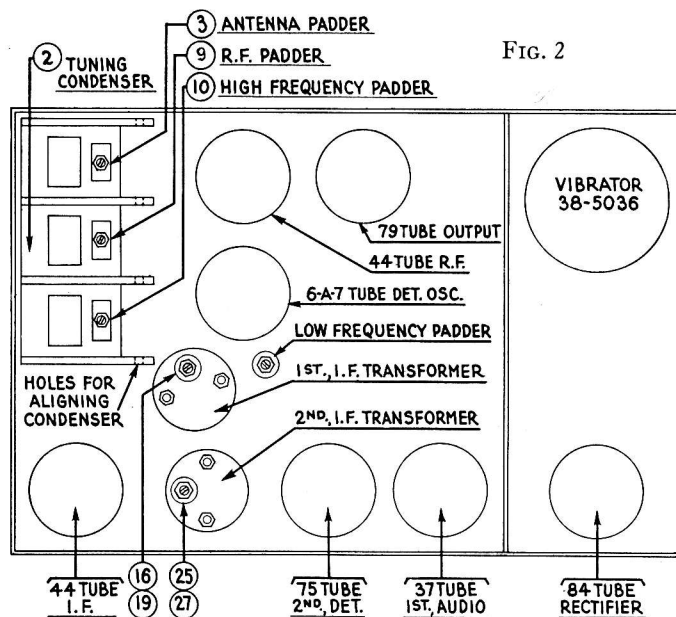


FIG. 2

Repeat the above procedure with the condensers 16 and 19.

After padding the first I. F. stage, remove the generator lead from the 6A7 tube and reconnect the grid lead to the 6A7 tube. Connect the antenna lead to the Receiver. Set the generator to 1500 K. C. and then connect the generator lead to the antenna lead.

There are four holes in line, one in each of the sections of the tuning condenser housing. (See Fig. 2.) Place a nail of the size that fits snugly through the holes and then turn the condenser plates out of mesh until they strike against the nail.

With the tuning condenser in this position adjust the

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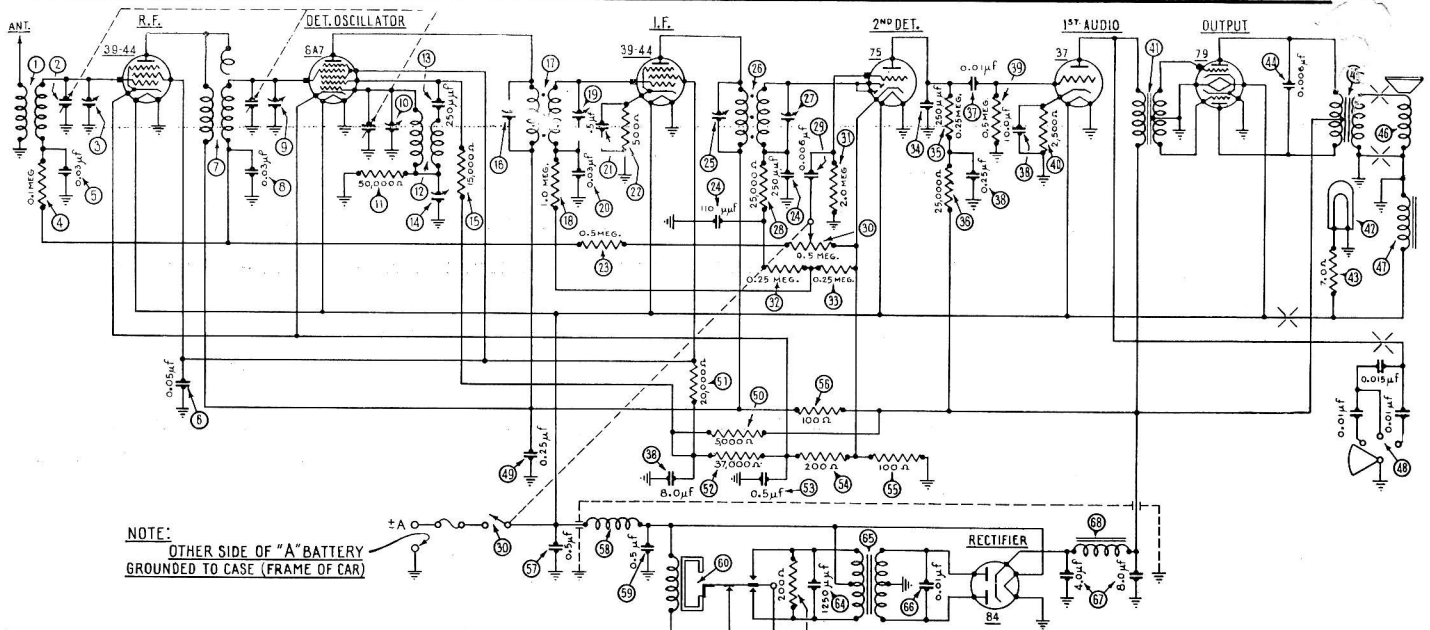


FIG. 3

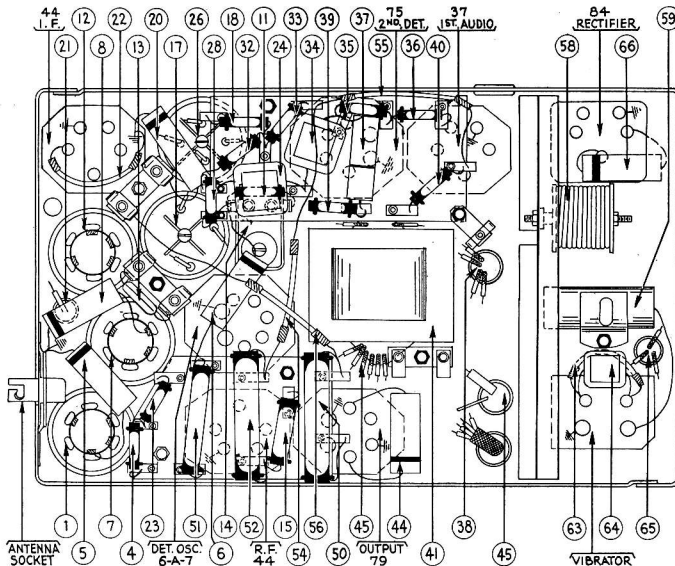


FIG. 4

high-frequency padder ⑩ until the maximum reading is obtained in the output meter. This is the true setting for 1500 K. C., 150 on the dial scale.

Next turn the condenser plates in mesh to 140 on the scale, 1400 K. C., and set the signal generator for 1400 K. C. The R. F. padder ⑨ and the antenna padder ③ are next adjusted for the maximum reading on the output meter.

Turn the condenser plates in mesh to 60 on the scale, 600 K. C., and readjust the signal generator to this frequency. Adjust the low-frequency padder ⑭ for the maximum meter reading.

Recheck the adjustments and then remove all test leads. If this procedure has been carefully followed and an accurately calibrated oscillator or signal generator used, the Receiver is adjusted properly.

## MODEL 800 PARTS LIST

① Antenna Transformer.....	32-1220	④② Pilot Lamp.....	34-2031
② Tuning Condenser.....	31-1083	④③ Resistor (7 ohms).....	33-3130
③ 1st Padder (in tuning cond.).....		④④ Condenser (.006 mfd.).....	30-4024
④ Resistor (100,000 ohms).....	6099	④⑤ Output Transformer.....	32-7205
⑤ Condenser (.03 mfd.).....	30-4025	④⑥ Cone and Voice Coil.....	36-3159
⑥ Condenser (.05 mfd.).....	30-4020	④⑦ Field Coil Assembly.....	36-3130
⑦ R. F. Transformer.....	32-1221	④⑧ Tone Control.....	30-4142
⑧ Condenser (.03 mfd.).....	30-4025	④⑨ Condenser (.25 mfd.).....	30-4134
⑨ 2nd Padder (in tuning cond.).....		④⑩ Resistor (5,000 ohms).....	33-1070
⑩ 3rd Padder (in tuning cond.).....		④⑪ Resistor (20,000 ohms).....	6649
⑪ Resistor (50,000 ohms).....	6098	④⑫ Resistor (37,000 ohms).....	33-1098
⑫ Oscillator Transformer.....	32-1222	④⑬ Condenser (.5 mfd.).....	30-4018
⑬ Condenser (.00025 mfd.).....	3082	④⑭ Resistor (200 ohms).....	7217
⑭ Padder.....	31-6012	④⑮ Resistor (100 ohms).....	33-3023
⑮ Resistor (15,000 ohms).....	6208	④⑯ Resistor (100 ohms).....	33-3023
⑯ Padder (prim. 1st I. F.).....		④⑰ Condenser (.5 mfd.).....	30-4015
⑰ 1st I. F. Transformer.....	32-1236	④⑱ Vibrator Choke.....	32-1335
⑱ Resistor (1,000,000 ohms).....	33-1096	④⑲ Condenser (.5 mfd.).....	30-4115
⑲ Padder (secondary 1st I. F.).....		④⑳ Vibrator Unit.....	38-5036
⑳ Condenser (.03 mfd.).....	30-4025	④㉑ Condenser (.05 mfd.).....	30-4039
㉑ Condenser (.5 mfd.).....	30-4058	④㉒ Resistor (200 ohms).....	7217
㉒ Resistor (500 ohms).....	6977	④㉓ Condenser (.00125 mfd.).....	5886
㉓ Resistor (500,000 ohms).....	6097	④㉔ Power Transformer.....	32-7098
㉔ Condenser (.00011-.00025).....	30-1020	④㉕ Condenser (.01 mfd.).....	30-4051
㉕ Padder (prim. 2nd I. F.).....		④㉖ Filter Condenser (4-8 mfd.).....	30-2015
㉖ Second I. F. Transformer.....	32-1237	④㉗ "B" Choke.....	32-7104
㉗ Padder (secondary 2nd I. F.).....		Spark Plug Resistors.....	33-1015
㉘ Resistor (25,000 ohms).....	33-1013	Distributor Resistor.....	4546
㉙ Condenser (.006 mfd.).....	30-4125	Interference Condenser.....	30-4007
㉚ Volume Control Assembly.....	33-5058	Dial.....	27-5022
㉛ Resistor (2,000,000 ohms).....	33-1025	Studs.....	28-6036
㉜ Resistor (250,000 ohms).....	33-1097	Nuts (mounting).....	W55
㉝ Resistor (250,000 ohms).....	33-1097	Knobs.....	03334
㉞ Resistor (25,000 ohms).....	33-1013	Battery Cable.....	38-5296
㉟ Condenser (.00025 mfd.).....	5858	Antenna Lead.....	38-5131
㊱ Resistor (250,000 ohms).....	33-1097	Control Unit Assembly.....	42-5077
㊲ Resistor (25,000 ohms).....	33-1013	Acorn Nut.....	W821
㊳ Condenser (.01 mfd.).....	30-4145	Key.....	6091
㊴ Condenser (.25-8-10mfd.).....	30-4135	Flex. Shaft (28") Vol. Con.....	28-8141
㊵ Resistor (500,000 ohms).....	6097	Flex. Shaft (28") Tun. Con.....	28-8139
㊶ Resistor (2500 ohms).....	33-1100		
㊷ Input Transformer.....	32-7206		

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