PHILCO TRANSITONE
SERVICE BROADCAST

JANUARY, 1935

MODEL FT-6 RECEIVER

THE new Ford auto radio incorporates new advanced principles of circuit and tube design. A totally new idea in sound distribution and musical fidelity is built into a dynamic speaker located above the occupants' heads in the header-bar of the car. Other features of the set are two-unit construction with separate speaker, highly developed Automatic Volume Control, illuminated custom-built instrument panel control, mounting in the ash receptacle opening.

The Receiver is mounted directly above the steering column out of sight and out of the way.

I. F. TRANSFORMER AND PADDERS

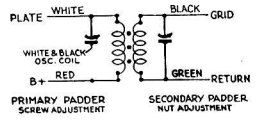
The I. F. transformers are assembled complete with padding condensers.

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

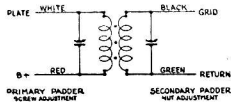
The primary padder is adjusted by means of the screw slot, accessible through the hole in the top of the shield can. The secondary padder is adjusted by means of the small hex nut, also accessible through the hole in the top of the shield. (See Figs. 1 and 2.)

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 32-1329 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.



1st I. F. Transformer
32-1329



2nd I. F. Transformer
32-1237

FIG. 1

MODEL FT-6 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 77 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 77 tube, and ground the shield to the Receiver housing.

Connect one lead from the output meter to the plate of the 42 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.

The primary screw padders ㉔ and ⑭ must be screwed all the way in. (Figs. 2 and 3.) The secondary nut padders ㉖ and ⑲ must then be adjusted. These padders should be adjusted for maximum reading on the output meter.

The screw padders ㉔ and ⑭ must be adjusted next.

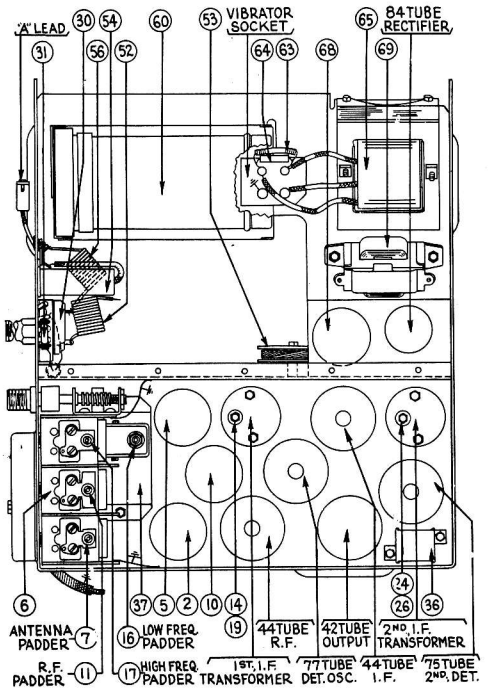


FIG. 2

Adjust the screw on each padder for maximum reading on the meter. This adjustment is critical. Note the maximum reading obtainable. Turn the screw in again and readjust, just bringing the adjustment up to the maximum reading. Do not pass it and then back off.

After padding the I. F. stages, remove the generator lead from the 77 tube and reconnect the grid clip to the 77 tube. Adjust the generator to 1580 K.C. and then connect the generator lead to the antenna lead. Ground the shield to the receiver housing.

Using a piece of paper approximately .006 inch in thickness, place it under the heel of the tuning condenser between the stator and rotor plates and turn the tuning condenser until the rotor plates strike this paper.

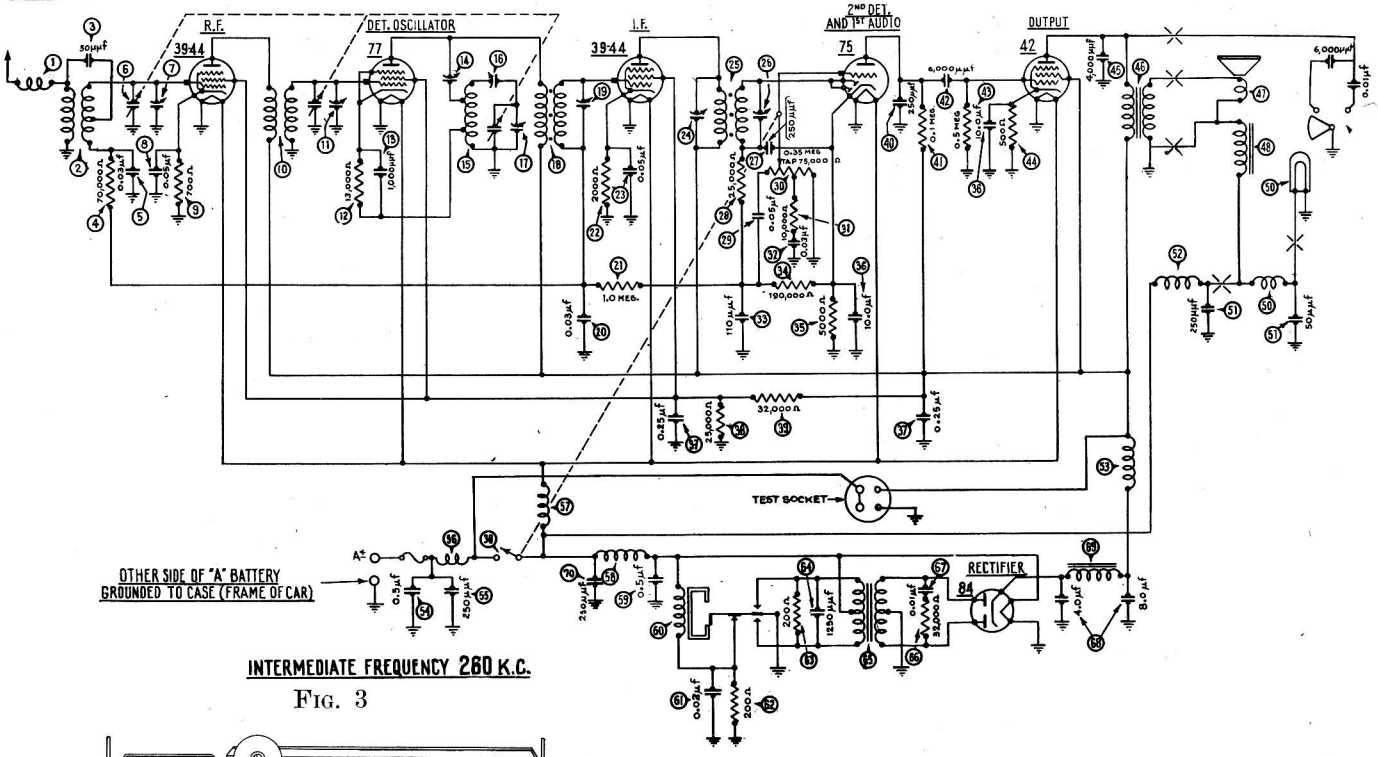


FIG. 3

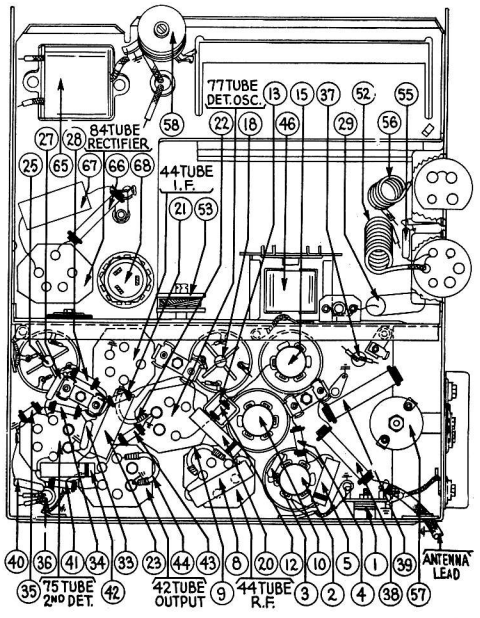


FIG. 4

With the tuning condenser in this position, adjust the high-frequency padder ⑰ until the maximum reading is obtained in the output meter. This is the true setting for 1580 K.C., 158 on the dial scale. Adjust condensers ⑪ and ⑦ in the same manner.

Remove the paper and turn the tuning condenser plates in mesh to approximately 60 on the scale, and adjust the signal generator to 600 K.C. Roll the tuning condenser and adjust the series padder ⑯ for the maximum meter reading.

Readjust the padder ⑰ at 1580 K.C.

Tune the gang to 1400 K.C. and adjust padders ⑪ and ⑦ to maximum.

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

MODEL FT-6 PARTS LIST

No. Shown on Schematic	Description	Part No.
①	Antenna Choke	32-1372
②	Antenna Transformer	32-1535
③	Condenser (50 mmfd.)	30-1029
④	Resistor (70,000 ohms)	33-1115
⑤	Condenser (.03 mfd.)	30-4025
⑥	Tuning Condenser	31-1459
⑦	1st Padder (on tun. cond.)	
⑧	Condenser (.05 mfd.)	30-4020
⑨	Resistor (700 ohms)	6443
⑩	R. F. Transformer	32-1536
⑪	2nd Padder (on tun. cond.)	
⑫	Resistor (11,000 ohms)	33-1194
⑬	Condenser (1000 mmfd.)	30-1007
⑭	Padder (Pri. 1st I. F. Trans.)	
⑮	Oscillator Transformer	32-1537
⑯	3rd Padder (on tun. cond.)	
⑰	4th Padder (on tun. cond.)	
⑱	First I. F. Transformer	32-1329
⑲	Padder (Sec. 1st I. F. Trans.)	
⑳	Condenser (.03 mfd.)	30-4025
㉑	Resistor (1.0 meg.)	33-1096
㉒	Resistor (2000 ohms)	33-3048
㉓	Condenser (.05 mfd.)	30-4020
㉔	Padder (Pri. 2nd I. F. Trans.)	
㉕	Second I. F. Transformer	32-1237
㉖	Padder (Sec. 2nd I. F. Trans.)	
㉗	Condenser (250 mmfd.)	30-1032
㉘	Resistor (25,000 ohms)	33-1013
㉙	Condenser (.05 mfd.)	30-4020
㉚	Vol. Con. & Switch Assm.	33-5067
㉛	Resistor (10,000 ohms)	33-1000
㉜	Condenser (.03 mfd.)	30-4025
㉝	Condenser (110 mmfd.)	30-1031
㉞	Resistor (190,000 ohms)	33-1116
㉟	Resistor (5000 ohms)	6096
㊱	Condenser (10-10 mfd.)	30-2076
㊲	Condenser (.25-.25 mfd.)	30-4126
㊳	Resistor (25,000 ohms)	3656
㊴	Resistor (32,000 ohms)	3525
㊵	Condenser (250 mmfd.)	30-1032
㊶	Resistor (.1 meg.)	6099
㊷	Condenser (6000 mmfd.)	30-4125
㊸	Resistor (.5 meg.)	6097
㊹	Resistor (500 ohms)	33-3031
㊺	Condenser (4000 mmfd.)	30-4185
㊻	Output Transformer	32-7347
㊼	Cone and Voice Coil	02861
㊽	Field Coil Assembly	36-3097
㊾	Tone Control	30-4243
㊿	Pilot Lamp	34-2039
(51)	Condenser (250 mmfd.)	30-1032
(52)	Choke	32-1374
(53)	R. F. Choke	32-1078
(54)	Condenser (.5 mfd.)	30-4018
(55)	Condenser (250 mmfd.)	30-1032
(56)	"A" Choke	32-1374
(57)	"A" Choke	32-1368
(58)	Vibrator Choke	32-1367
(59)	Condenser (.5 mfd.)	30-4227
(60)	Vibrator	38-5036
(61)	Condenser (.02 mfd.)	30-4039
(62)	Resistor (200 ohms)	7217
(63)	Resistor (200 ohms)	7217
(64)	Condenser (1250 mmfd.)	5886
(65)	Power Transformer	32-7232
(66)	Resistor (32,000 ohms)	3525
(67)	Condenser (.01 mfd.)	30-4051
(68)	Filter Condenser (4-8 mfd.)	30-2030
(69)	"B" Choke	32-7233
(70)	Condenser (110 mmfd.)	30-1031
	4-prong Socket	27-6006
	5-prong Socket	27-6014
	6-prong Socket	27-6020
	Spark Plug Resistor	33-1015
	Spark Plug Terminal	28-6179
	Interference Cond. (Gen.)	30-4181
	Interference Cond. (Dist.)	30-4176
	Face Assembly	42-5302
	Glass for Control	27-7757
	Knobs	27-4171
	Pointer	28-2605
	Flexible Shaft (Tuning)	28-8331
	Flexible Shaft (Volume)	28-8332
	Ammeter Cable	38-5749
	Fuse	7227
	Fuse Insulator	27-7131
	Antenna Lead	L1741
	"T" Bolt (set mounting)	28-8161
	Nut (set mounting)	W518A
	Speaker Cable	41-3125
	Tow Strap	36-34. 2
	"U" Clamp Control Mtg.	29-2699