PHILCO TRANSITONE
SERVICE BROADCAST

MARCH, 1937

MODEL 3827

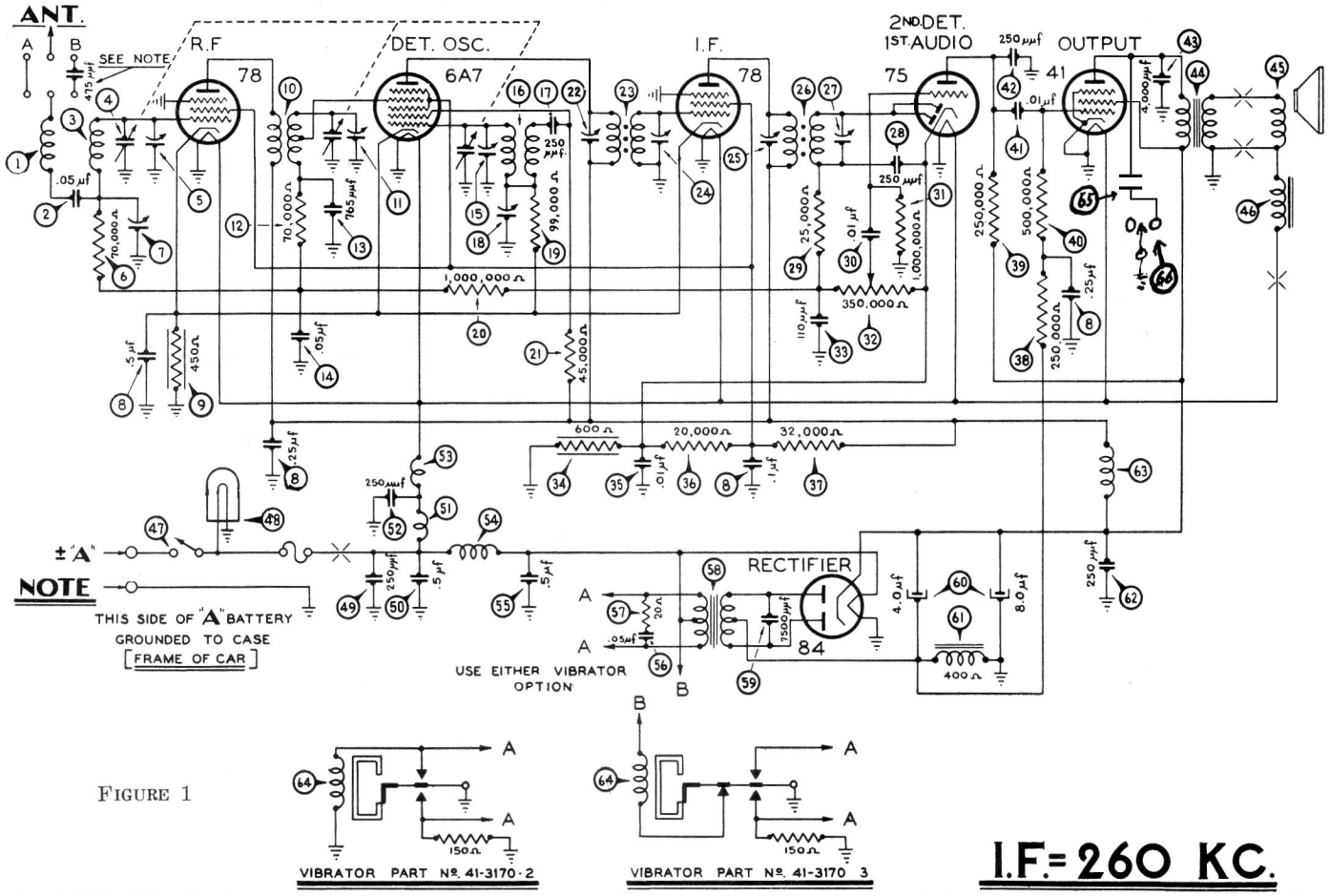

FIGURE 1

I.F.= 260 KC.

NOTE: When the Receiver is installed in a car having a top antenna, under-car antenna, spare wheel antenna or antenna having a similarly low relative capacitance (50 mmf. to 450 mmf.) use connector plug in "A".

When the Receiver is installed in a car having a metal insert top antenna, insulated door antenna, insulated trunk cover antenna or antenna having similarly high relative capacitance (450 mmf. to 2500 mmf.) use condenser plug in "B".

MODEL 3827 PARTS LIST

No.	Description	Part No.
(1)	Antenna Choke	38-8532
(2)	Condenser (.05 mfd.)	30-4444
(3)	Antenna Transformer	32-2516
(4)	Tuning Condenser	31-1930
(5)	First Padder (on Tun. Cond.)	
(6)	Resist. (70,000 ohms)	33-370344
(7)	Ant. Comp. Cond.	31-6082
(8)	Condenser (.1-.25-.25-.5 mfd.)	30-4415
(9)	Resistor (450 ohms)	33-1218
(10)	R.F. Transformer	32-2307
(11)	Second Padder (on Tun. Cond.)	
(12)	Res. (70,000 ohms)	33-370344
(13)	Condenser (765 mmfd.)	30-1069
(14)	Condenser (.05 mfd.)	3615-OSG
(15)	3rd Padder (on Tun. Cond.)	
(16)	Oscillator Transformer	32-2308
(17)	Condenser (250 mmfd.)	30-1032
(18)	Low Frequency Padder	31-6102
(19)	Resist. (51,000 ohms)	33-351344
(20)	Res. (1,000,000 ohms)	33-510344
(21)	Resist. (45,000 ohms)	33-345344
(22)	Padder (Pri. 1st I.F. Trans.)	
(23)	First I.F. Transformer	32-2026
(24)	Padder (Sec. 1st I.F. Trans.)	
(25)	Padder (Pri. 2nd I.F. Trans.)	
(26)	Second I.F. Trans.	32-2027
(27)	Padder (Second2nd I.F. Trans.)	
(28)	Cond. (250 mmfd.)	30-1032
(29)	Resist. (25,000 ohms)	33-325344
(30)	Condenser (.01 mfd.)	3903-OSU
(31)	Res. (1,000,000 ohms)	33-510344
(32)	Volume Control (350,000 ohms)	33-5148
(33)	Condenser (110 mmfd.)	30-1031
(34)	Resistor (600 ohms)	33-1212
(35)	Condenser (.01 mfd.)	3903-OSG
(36)	Resist. (20,000 ohms)	33-320344
(37)	Resist. (32,000 ohms)	33-332434
(38)	Res. (250,000 ohms)	33-424344
(39)	Res. (250,000 ohms)	33-424344
(40)	Res. (500,000 ohms)	33-449344
(41)	Condenser (.01 mfd.)	3903-0SU
(42)	Condenser (250 mmfd.)	30-1032
(43)	Condenser(4000 mmfd.)	30-4185
(44)	Output Transformer	32-7495
(45)	Cone & Voice Coil	36-3526
(46)	Field Coil Assembly	32-9236
(47)	On & Off Switch	42-1318
	Complete Speaker	36-1279
(48)	Pilot Lamp	34-2040
(49)	Condenser (250 mmfd.)	30-1032
(50)	Condenser (.5 mfd.)	30-4015
(51)	"A" Choke	32-1604
(52)	Condenser (250 mmfd.)	30-1032
(53)	Filament Choke	32-2535
(54)	Vibrator Choke	32-2039
(55)	Condenser (.5 mfd.)	30-4015
(56)	Condenser (.05 mfd.)	30-4444
(57)	Resistor (20 ohms)	33-020344
(58)	Power Transformer	32-7550
(59)	Condenser(7500 mmfd.)	30-4420
(60)	Filter Cond. (4-8 mfd.)	30-2150
(61)	Filter Choke	32-7545
(62)	Condenser (250 mmfd.)	30-1032
(63)	"B" Choke	32-1281 41-3170-2
(64)	Vibrator (OPTIONAL)	41-3170-3
(65)	Condenser (.02 mfd.)	30-4419
(66)	Tone Control Switch	42-1313
	Four Prong Socket	27-6044
	Five Prong Socket	27-6035
	Six Prong Socket	27-6036
	Seven Prong Socket	27-6037
	Tuning&Volume Knob	27-4521
	On & Off Knob	27-4525
	Pilot Lamp Assembly	38-7734
	Scale Assembly	42-5714
	Tuning&Volume Shaft	28-8740
	Control Assembly	42-5713
	Distributor Resistor	33-1196
	Interference Condenser	30-4007
	Antenna Condenser	30-4412
	Antenna Connector	28-6423
	Insulator	27-8199
	Fuse	7227
	Fuse Insulator	27-7729
	Tee Bolt	28-6161
	Nut	W518
	Receiver Housing	38-8562
	Tone Control Knob	03384

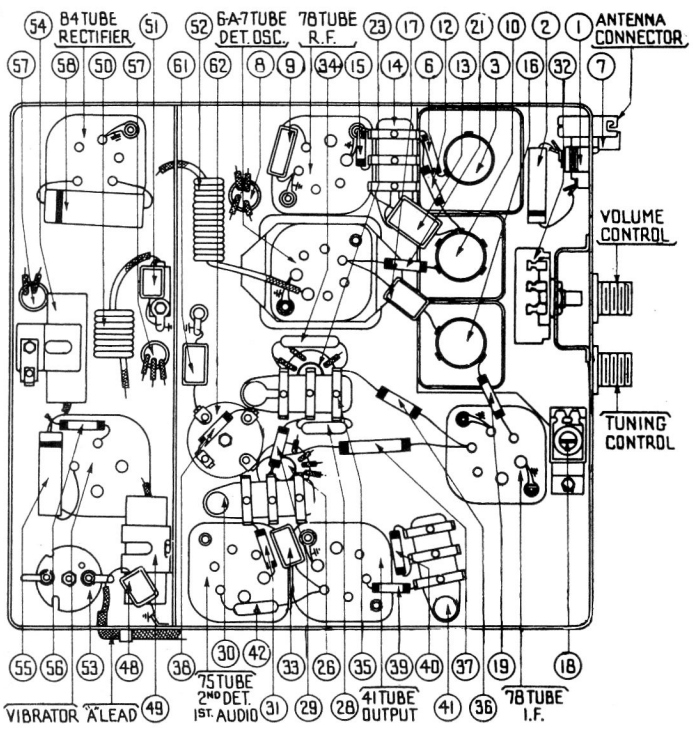

FIGURE 2

I. F. TRANSFORMERS AND PADDERS

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

Both the primary and the secondary padders are placed side by side in the top of the transformer shield can. The adjusting screws are accessible thru the holes in the top of the shield. (See Figure 4).

The coil windings terminate in leads instead of terminals or lugs. The color scheme of the leads is given in Figure 3.

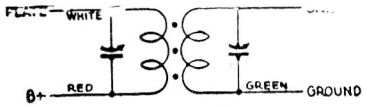

FIGURE 3

If replacements are ever necessary, replace the entire coil assembly, 32-2026 for the first I.F. stage and 32-2027 for the second I.F. stage. Neither the coil nor the padders will be furnished separately. Order only by the above numbers.

MODEL 3827 ADJUSTMENTS

All padding adjustments are carefully made at the factory and ordinarily no readjustments are necessary. However, when readjustments are required, the procedure given below must be followed in detail.

Equipment

Fully charged heavy duty storage battery or 6-volt power pack, 048A or 099 Philco Set Tester, 3164 Padding wrench, 27-7159 Padding screw driver.

General

OUTPUT METER—The output meter must be connected by means of an adapter to the plate of the type 41 output tube and to the Receiver chassis.

SIGNAL GENERATOR—With the Receiver and signal generator set up for operation at the prescribed frequency, turn the Receiver volume control on full and set the signal generator attenuator so that a half scale reading is obtained on the output meter. The signal in the speaker should be audible but not loud.

The shielding on the signal generator output lead must be connected to the Receiver housing.

Procedure

I.F.—Set the signal generator at exactly 260 K.C. Connect the generator lead to the grid cap of the 78 I.F. tube in series with a .1 mfd. condenser (without removing the grid cap).

Adjust the secondary screw padder (27) on the second I.F. transformer for maximum reading on the output meter. Then adjust the primary screw padder (25) for maximum reading. (See Figure 4 for location of padders).

Remove the generator lead from the 78 tube.

Connect the generator lead to the grid cap of the 6A7 tube in series with a .1 mfd. condenser (without removing the grid cap). Adjust the secondary screw padder (24) on the first I.F. transformer for maximum reading on the output meter. Then adjust the primary screw padder (22) for maximum reading. Readjust padders (25) and (27) with the generator lead connected to the type 6A7 tube. (See Figure 4 for location of padders).

HIGH FREQUENCY AND R.F. — After padding the first I.F. stage remove the generator lead from the 6A7 tube.

Set the signal generator at 1550 K.C. and then connect the generator lead to the grid cap of the 78 R.F. tube in series with a .1 mfd. condenser (without removing the grid cap).

Turn the tuning condenser plates out of mesh as far as they will go.

With the tuning condenser in this position, adjust the high frequency padder (15) and the R.F. padder (11) until the maximum reading is obtained on the output meter. This is the true setting for 1550 K.C., 155 on the dial scale.

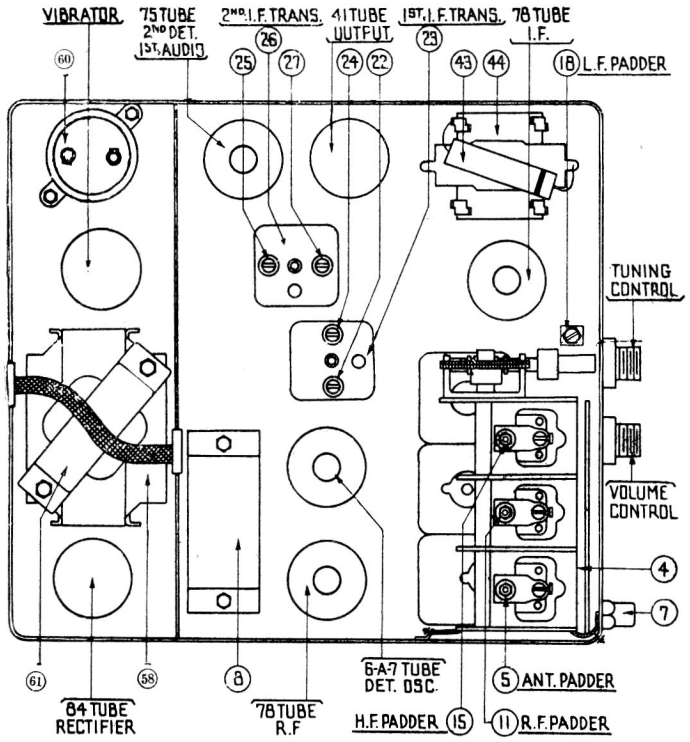

FIGURE 4

LOW FREQUENCY—Turn the tuning condenser plates in mesh to approximately 580 K.C., 58 on the dial scale and set the signal generator at 580 K.C. Roll the tuning condenser and adjust the low frequency padder screw (18) for maximum reading on the output meter.

HIGH FREQUENCY READJUSTMENT—Turn the tuning condenser plates out of mesh to 1550 K.C. and set the signal generator at 1550 K.C. Then adjust the high frequency padder (15) again for maximum reading on the output meter.

Remove the generator lead from the 78 R.F. tube.

ANTENNA — WHEN PADDING THE ANTENNA STAGE IT IS EXTREMELY IMPORTANT THAT THE PROPER DUMMY ANTENNA BE CONSTRUCTED AND USED.

Connect the signal generator lead to the antenna cable assembly (made up of Part No. 41-3191 cable and a 200 mmfd. condenser Part No. 30-1013) in series between the Receiver antenna receptacle and the signal generator. Plug the cable into the antenna receptacle on the end of the Receiver.

Turn the tuning condenser to 1400 K.C. and set the generator at 1400 K.C. Adjust the padders (11) and (5) for the maximum reading on the output meter.

When the antenna stage adjustment is made with the Receiver installed in the car, the Receiver antenna lead must be connected to the car antenna in the usual manner. Connect the signal generator output lead to a wire placed near the car antenna but not connected to it.

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