INSTALLATION AND OPERATING INSTRUCTIONS

PHILCO

REG. U. S. PAT. OFF.

TRANSITONE

MODEL 11

THE PHILCO TRANSITONE MODEL 11 is a new Philco development in automobile radio. It is a powerful and extremely compact single unit, superheterodyne Receiver having many of the features that formerly were not possible in such a compact Receiver.

The Receiver, Speaker and the new Full Wave Philco Vibrator are all housed in a single, shielded container designed for quick installation on the dash of the automobile. The arrangement is particularly adaptable for small cars and for cars already equipped with a heater. The powerful electro-dynamic speaker is mounted in the bottom of the housing so as to afford excellent tone quality and volume without the necessity of using a speaker as a separate unit.

All tubes used are the latest Philco high-efficiency tubes, designed especially for automobile radio. Several of these tubes each perform the functions which formerly required two and three tubes, thereby effecting a great tube economy, reducing the number of tubes necessary for satisfactory operation, and reducing the amount of current taken from the car battery to the very minimum.

Philco's system of automatic volume control is used to give that smooth, elastic control which counteracts fading while driving along, and prevents blasting of local stations.

The new Receiver is ALL ELECTRIC, operating entirely from the car storage battery. The new Full Wave Philco Vibrator is built in as an integral part of the Receiver.

Ease of installation as well as ease of service, when necessary, are likewise features of this newest automobile radio Receiver.

GENERAL INSTALLATION

ANTENNA—To secure maximum performance from the Model 11 a good roof or top antenna must be used. Most cars manufactured today are wired for radio at the car factory, having an antenna in the top and a lead-in brought down one of the corner posts. However, if the car in which this Receiver is to be installed, is not equipped with a good top antenna, the first step of the installation should be to have one installed.

Philco Transitone and United Motors Service stations are fully equipped and are competent to do this work.

RECEIVER—Since the Receiver, Speaker and Vibrator are completely assembled as a single unit, it must be mounted on the inside of the dash. When the Receiver is installed, the speaker panel must face down. The Receiver is so designed that, when installed properly, no water or dirt or other injurious matter can enter the Receiver or Speaker.

There are three ways of mounting the Receiver on the dash and three sets of bolt holes for the mounting studs provided in the Receiver housing—in the back, the front, and the right end. Consider the left end to be the end containing the clamp brackets for the volume and tuning control shafts. First determine the most suitable location and position for installing the Receiver. Allow ample foot room and be sure that, in the location selected, the Receiver will not interfere with the operation of the control pedals.

Whenever possible, the Receiver should be installed nearest the side down which the antenna lead-in is brought. When the Receiver is installed on the right side of the dash, the installation should be made as shown in Fig. 1, with the shaft bracket end of the Receiver toward the center of the car. The same relative mounting can be used when the Receiver is installed in the center of the dash. When a left-hand dash mounting is necessary, the Receiver must be turned around and the opposite side placed against the dash. The speaker must face down and the control bracket end must still face the center of the car.

When there is not sufficient room on the dash for mounting the Receiver in any of the above positions use the end mounting. Be sure to keep the speaker face down.

After deciding on the best location, place the cardboard template against the dash and mark the location for the three bolt holes. Then drill three 3/8-inch holes. Screw the short end of the mounting studs into the Receiver, placing the lock washers against the housing. Put spacing nuts on the studs to allow sufficient clearance between the Receiver and the dash, so that the speaker panel can be removed easily if necessary later on. Next place the large flat washers on the studs and then push the studs through the holes in the dash. Place the small washers on the studs against the engine side of the dash and bolt up securely. (See Fig. 1.)

CONTROL UNIT—Mount the control unit on the steering column. Fig. 2 shows only a right-hand installation. The control can be installed on the right, or using the extra hole provided, on the left or above the steering column. The clamp strap must be formed around the steering column and a hole reamed out for the clamp screw. Follow the details shown in Fig. 2 for attaching the mounting bracket and the control unit. The felt strip must be placed next to the steering column under the clamp strap so that the finish will not be marred.

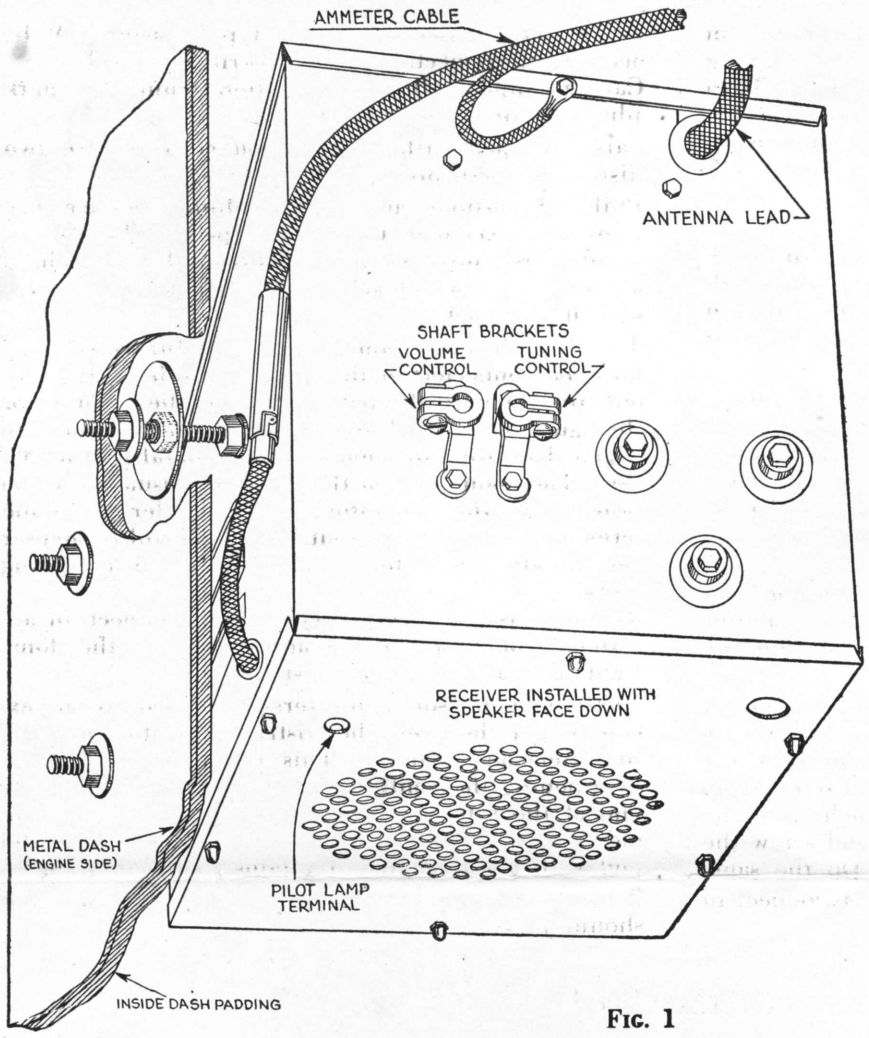

FIG. 1

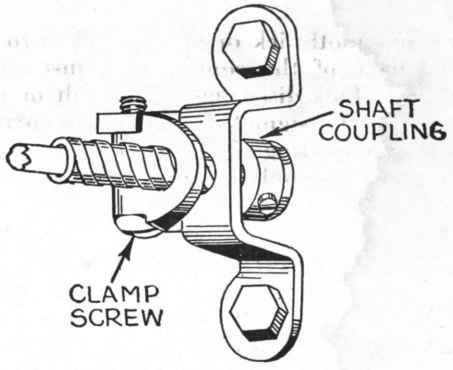

FIG. 3

and on the shaft clamp brackets (Shown in Fig. 1 and Fig. 3.)
The volume control in the Receiver must be turned all the way off (counter clockwise) and the control locked when the volume control shaft is fastened.

Seat the casings and shafts in the clamp brackets and shaft couplings. Loosen the bracket mounting screws sufficiently so that the shafts and couplings are correctly aligned. Then tighten the casing clamp screws and the coupling set screws, and finally, tighten the bracket mounting screws. In case it is difficult to tighten the set screw in the rear coupling, couple the rear shaft first. Loosen the front bracket so that it can be swung out of the way and the rear coupling connection easily made. Then proceed with the front coupling.

BATTERY CABLE—Insert the fuse and fuse insulator in the fuse receptacle and connect to the Receiver battery lead as shown in Fig. 1. Connect the black-white lead of the battery cable to the battery side of the ammeter.

The black lead at each end of the battery cable is the shield lead which must be grounded to the back of the instrument panel and under one of the nuts on the Receiver housing. Exercise care when making these connections.

The cable must be dressed and secured in place.

ANTENNA LEAD—Splice the antenna lead to the antenna lead-in as close as possible to the corner post, dressing it in place above or in back of the Receiver. The shield on the lead must be grounded close to the corner post.

FLEXIBLE SHAFTS—The flexible shafts are coupled to the control unit when shipped from the factory. The right-hand knob on the control is the tuning control—the left-hand knob is the volume control and switch. The volume control must be locked with the key at the control unit.
Dress the shafts along the steering column and under the cowl behind the instrument panel to the Receiver. Loosen the set screws in the shaft couplings

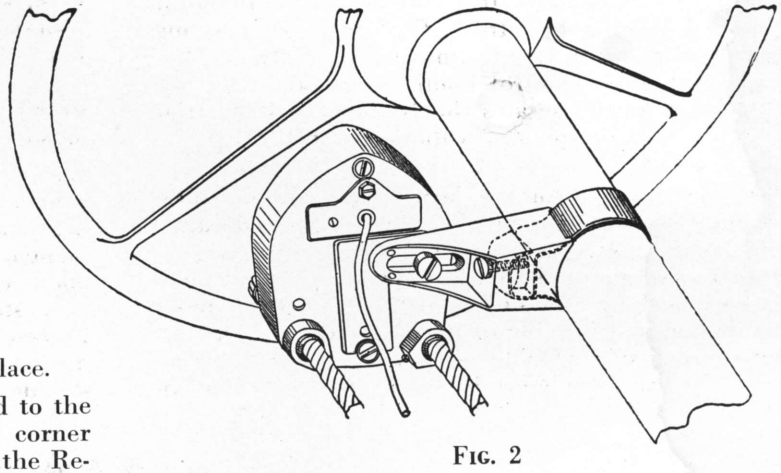

FIG. 2

PILOT LAMP LEAD—The tip of the black wire from the rear of the control unit must be plugged into the pilot lamp terminal on the speaker panel.

ADJUSTING THE DIAL SCALE—The dial is numbered in channel numbers from 52 to 150, which, with the addition of an 0 to the numbers, represent the frequencies in kilocycles of the broadcast band.

With the Receiver set up for operation, turn the dial to the frequency of a broadcast signal which can be tuned in easily, preferably between 55 and 100.

Push a toothpick or match stick through the hole in the back of the control unit just above the tuning shaft. This disengages the teeth of the dial. Then tune in the signal of the station corresponding with the dial setting. The dial will remain stationary. After the signal is tuned in accurately, remove the toothpick or match stick and the dial will be set correctly.

STANDARD SUPPRESSION—The standard spark plug resistors (33-1015) can be installed on the spark plugs of practically all cars. Likewise the standard distributor resistor (4546) can be plugged into most distributor caps.

Disconnect the high tension leads to the spark plugs. Cut off the terminal end of the lead and screw the small elbow type resistor on the lead. The resistor can then be snapped on the terminal of the spark plug. To avoid confusion when the leads cannot be identified easily, install the resistor and make all connections on one lead at a time.

Next remove the coil to distributor high tension lead and plug the distributor resistor into the distributor cap. Then connect the high-tension lead into the female end of the distributor resistor.

In case the spark plugs used are not equipped with a suitable terminal, the conventional tips can be secured or the double end screw type resistors (4851) can be used. When using the double end screw type, cut the high tension leads about one inch from the plug. Remove the end from the plug and screw the resistor into the center of the wire. Do the same with the other cut end of the lead and reconnect to the spark plug.

In some few cases, the screw type resistor will be needed for connecting to the distributor head.

Cars equipped with twin ignition require a spark plug resistor on each spark plug.

Cars equipped with two ignition coils require two distributor resistors.

Philco Transitone and United Motors Service Stations will exchange the screw type (4851) for the standard resistors (33-1015 and 4546). They also have an adequate stock of additional resistors and condensors, if required.

Two interference condensers are furnished—one must be connected to the generator side of the cut-out, the other to the battery side of the primary of the ignition coil. The condenser bracket must be fastened securely to some grounded metal part of the car. The condenser on the generator usually can be fastened to the generator housing under the same screw that holds the cut-out, while the coil condenser can usually be fastened under the coil mounting bolts.

In some cases it may be necessary to connect an additional condenser on the ammeter or to the dome light lead at the corner post.

There may be some interference caused by an excessive gap between the distributor rotor and the high tension contacts. This can be overcome by lengthening the contact end of the rotor. Place the end of the rotor on a steel block and peen or hammer it with a small machinist's hammer. Dress the end with a file so that it retains its original shape. The rotor should not brush or wipe the contacts, but should just clear them.

OPERATION

The left-hand knob on the control is a combination switch and volume control. First turn the key one-quarter turn clockwise to unlock the control. Then turn the volume control knob clockwise. The first range of motion operates the Receiver switch; from there on it is the manual volume control.

With the volume control turned on halfway, allow the tubes to heat up. Then turn the right-hand knob (the station selector) to tune in the various programs. The numbers on the dial are channel numbers which with the addition of "0" to the number correspond to the frequency in kilocycles. Adjust the volume to a suitable level and recheck the tuning. The Receiver must be tuned so that the maximum signal is obtained. Since the Receiver is extremely selective, it is of utmost importance that the Receiver be tuned right on the station. Careless tuning off to one side, even though the signal is still heard, results in very poor tone quality and very mushy reception.

Except on very weak signals, the automatic volume control maintains the same volume level while driving along without continually manipulating the manual volume control, cuts out external interference, counteracts fading and prevents blasting of local stations while tuning. It is virtually impossible, however, to maintain satisfactory reception while driving under bridges or in places which are totally shielded, known as dead spots.

MAINTENANCE AND SERVICE

The Receiver is fully covered by the Standard Warranty on next page. Read it carefully. Should this Receiver or the Receiver installation ever require attention, go immediately to your dealer or to the service station that made the installation for efficient service.

The installation record should be filled out by your dealer at the time the installation is made. Keep the record for your protection in case you ever do require service.

REPLACEMENT TUBES—Use only PHILCO High Efficiency Tubes for replacements.

REPLACEMENT PARTS—Use only genuine PHILCO Replacement Parts. Don't jeopardize the performance of your Receiver by using inferior parts.

DO NOT ATTEMPT TO ADJUST THE VIBRATOR—If service is ever required, go to your dealer or to the nearest authorized Philco Transitone or United Motors Service Station.

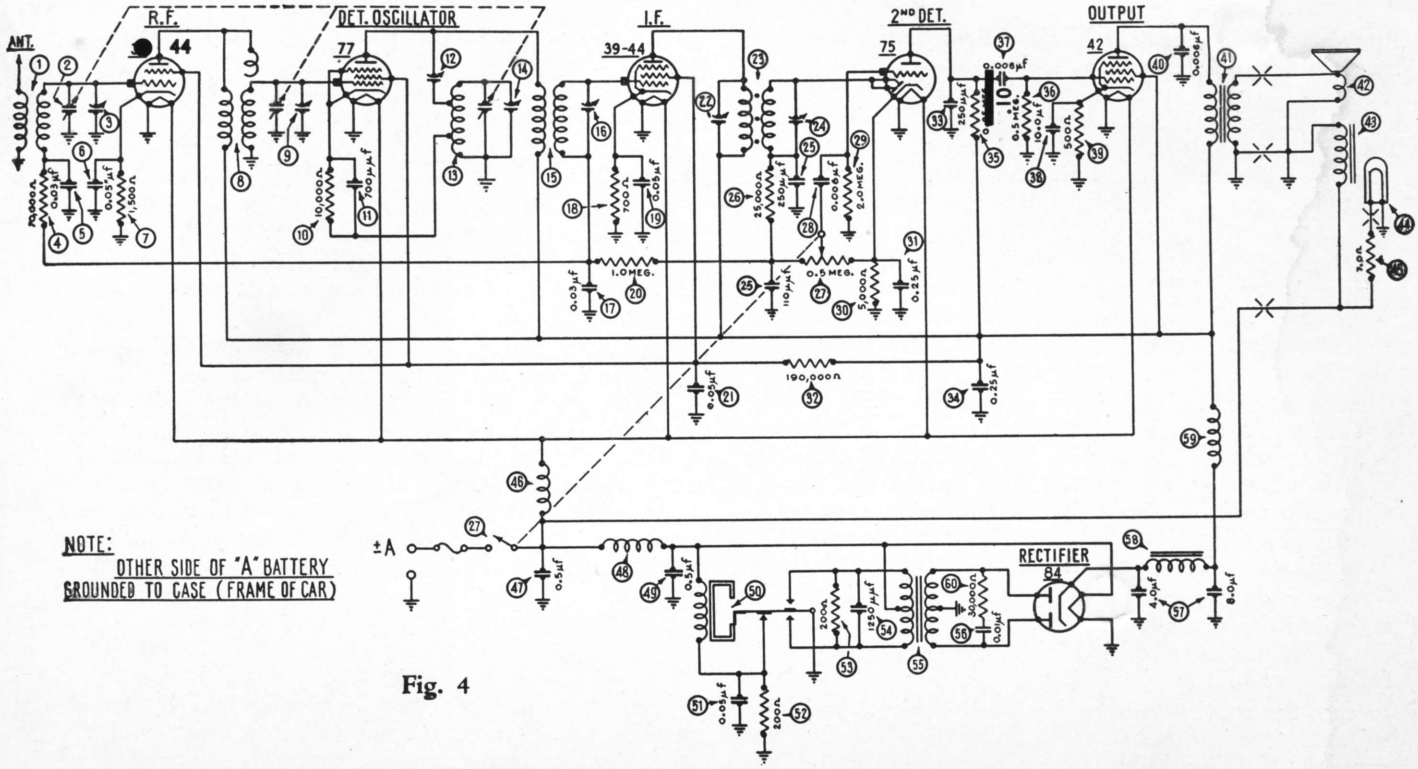

Fig. 4

MODEL 11 PARTS LIST

(1)	Antenna Transformer	32-1331	(20)	Resistor (1,000,000 ohms)	33-1096	(39)	Resistor (500 ohms)	33-3031
(2)	Tuning Condenser	31-1149	(21)	Condenser (.05 mfd.)	30-4020	(40)	Condenser (.006 mfd.)	30-4024
(3)	1st Padder (on tun. cond.)		(22)	Padders (Prim. 2nd I. F.)		(41)	Output Transformer	32-7214
(4)	Resistor (70,000 ohms)	33-1115	(23)	2nd I. F. Transformer	32-1237	(42)	Cone & Voice Coil	36-3027
(5)	Condenser (.03 mfd.)	30-4025	(24)	Padder (Sec. 2nd I. F. Tran.)		(43)	Field Coil Assembly	36-3097
(6)	Condenser (.05 mfd.)	30-4020	(25)	Cond. (.00011-.00025 mfd.)	30-1020	(44)	Pilot Light	6608
(7)	Resistor (1500 ohms)	33-3047	(26)	Resistor (25,000 ohms)	33-1013	(45)	Resistor (7 ohms)	33-3035
(8)	R. F. Transformer	32-1332	(27)	Vol. Con. & Switch Assm.	33-5058	(46)	"A" Choke	32-1268
(9)	2nd Padder (on tun. cond.)		(28)	Condenser (.006 mfd.)	30-4125	(47)	Condenser (.5 mfd.)	30-4047
(10)	Resistor (10,000 ohms)	33-1000	(29)	Resistor (2,000,000 ohms)	33-1025	(48)	Vibrator Choke	32-1235
(11)	Condenser (.0007 mfd.)	5863	(30)	Resistor (5000 ohms)	33-1001	(49)	Condenser (.5 mfd.)	30-4147
(12)	Padder (Pri. 1st I. F. Tran.)		(31)	Condenser (.25 mfd.)	30-4146	(50)	Vibrator Unit	38-5036
(13)	Oscillator Transformer	32-1333	(32)	Resistor (190,000 ohms)	33-1116	(51)	Condenser (.05 mfd.)	30-4039
(14)	3rd Padder (on tun. cond.)		(33)	Condenser (.00025 mfd.)	3082	(52)	Resistor (200 ohms)	7217
(15)	1st I. F. Transformer	32-1329	(34)	Condenser (.25 mfd.)	04360	(53)	Resistor (200 ohms)	7217
(16)	Padder (Sec. 1st I. F. Tran.		[redacted]			(54)	Condenser (.00125 mfd.)	5886
(17)	Condenser (.03 mfd.)	30-4025	(36)	Resistor (500,000 ohms)	6097	(55)	Power Transformer	32-7216
(18)	Resistor (700 ohms)	6443	(37)	Condenser (.006 mfd.)	30-4125	(56)	Condenser (.01 mfd.)	30-4051
(19)	Condenser (.05 mfd.)	30-4020	(38)	Condenser (10 mfd.)	7440	(57)	Condenser (4.—8. mfd.)	30-2072
			(35)	Resistor (100,000)	6099			

(58)	"B" Choke	32-7215
(59)	R F Choke	32-1281
(60)	Resistor (30,000 ohms)	7836
	Spark Plug Resistor	33-1015
	Distributor Resistor	4546
	Screw Type Resistor	4851
	Interference Condenser	30-4007
	Dial	27-5038
	Studs	28-6036
	Nuts (mounting)	W55A
	Knobs (tuning)	03334
	Knobs (volume)	06886
	Battery Cable	38-5296
	Control Unit Assembly	42-5150
	Acorn Nut	W821
	Key	6091
	Fuse	7227
	Fuse Insulator	27-7131

STANDARD WARRANTY

We warrant each new Radio Receiver and Speaker manufactured by us to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good at our factory or factory depots any part or parts thereof which shall, within ninety (90) days after delivery of such Receiver to the original purchaser, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other obligations or liabilities on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of our Receivers or Speakers. This warranty shall not apply to any Receiver or Speaker which shall have been repaired or altered outside of our factory or factory depots in any way so as, in our judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence, or accident, nor which has had the serial number altered, effaced, or removed. Neither shall this warranty apply to any Receiver or Speaker which has been connected otherwise than in accordance with the instructions furnished by us.

TRANSITONE AUTOMOBILE RADIO CORP.

PHILADELPHIA, PA.

Model 11 — Installation Registration

Receiver Serial No ..... Date .....

Installed by ..... Make and Year of Car .....

Owner's Name ..... Owner's Address .....

KEEP THIS INSTALLATION RECORD. IT IS IMPORTANT IN CASE YOU EVER REQUIRE SERVICE

Part No. 39-3559—10—3-34

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