

De Luxe Custom Built Radios . . . by Philco

Installation Instructions - Chrysler Airflow Models - Codes C-1, C-2 and C-3

THESE INSTRUCTIONS have been prepared for your use in installing the DeLuxe Custom-Built Radio. Read through thoroughly, then follow the instructions carefully in every detail when making the installation.

Carefully unpack the cartons and check the contents with the material packing lists so that you may become familiar with all the parts and thereby make the installation easily and quickly.

This new DeLuxe Custom-Built Radio is mounted on a special bracket under the cowl on the left-hand side. The speaker is mounted on the "H" shaped instrument board to dash brace.

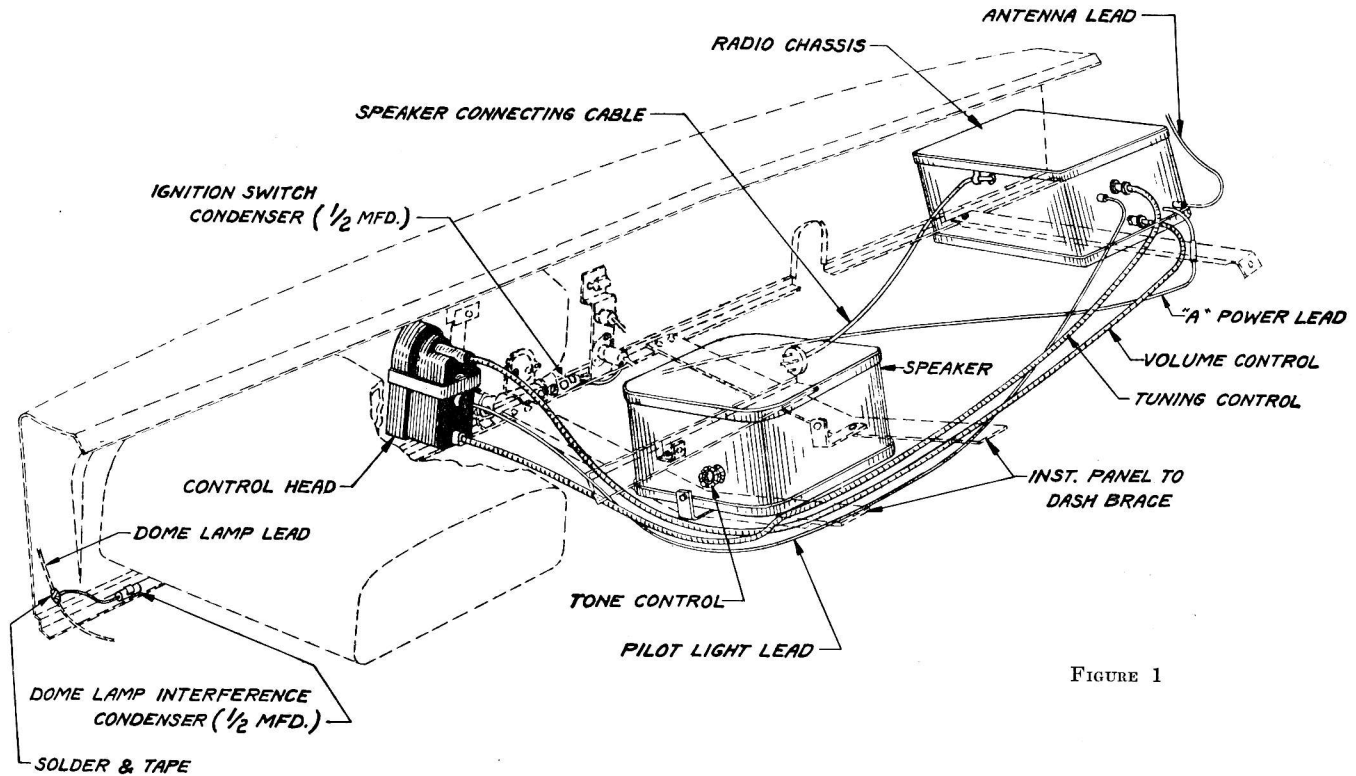


FIGURE 1

Antenna Lead

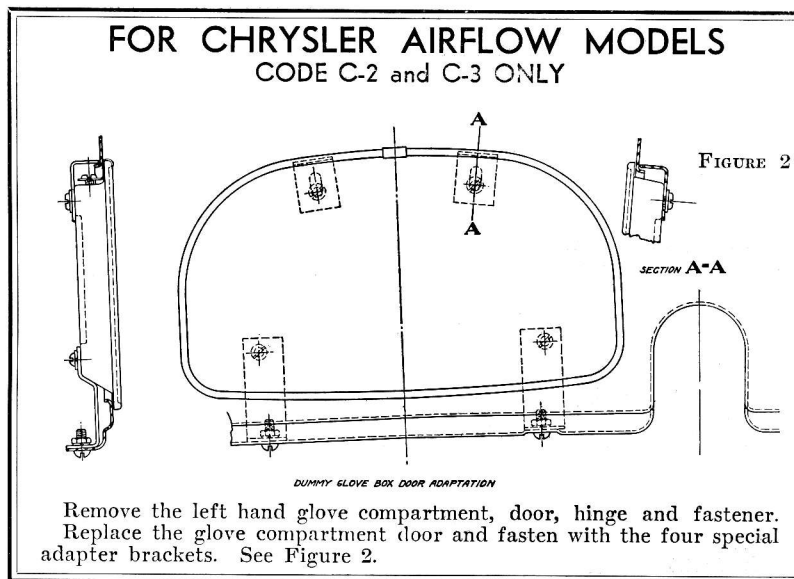
The shielded antenna lead must be connected to the car antenna lead-in that comes down the front left-hand corner post. The bare ends of the two leads must be twisted together and taped. Make the splice as close as possible to the corner post. The shield pig-tail of the antenna lead must be grounded.

Receiver Installation

(See Figure 1)

1. Remove the car lighting fuse from the back of the ammeter.

2. Bolt the Receiver fast to the special set-mounting bracket so that when installed in the car,



the control coupling end of the Receiver faces the dash of the car. The bracket, together with the nuts and lockwashers are placed in the accessory kits.

3. Drill a 1/4" hole in the flange of the instrument board 6 5/8" to the left of the steering column opening in the instrument board.

4. Rest the flat part of the Receiver mounting bracket on the flange of the instrument board over the hole just drilled and place the 3/4" 10-32 bolt through the hole in the flange of the instrument panel and the Receiver mounting bracket. Put on the nut but do not tighten at this time.

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5. Raise the Receiver as high as the switch lock-to-coil cable permits and mark the location for the bolt hole on the dash.

6. Drill a $\frac{5}{16}$ " hole through the dash.

7. Using the $1\frac{3}{4}$ " bolt and nut, fasten the mounting bracket securely to the dash. The nut must be on the engine side.

8. Tighten the bolt that fastens the mounting bracket to the instrument board.

Speaker Installation

(See Figures 1, 3 and 5)

1. Refer to Figure 3 which shows the location of the holes in the reinforcing brace on which the speaker is to be mounted.

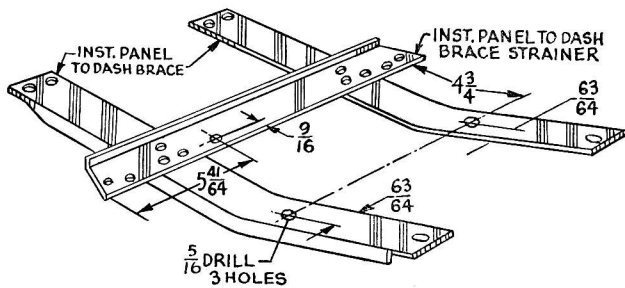
2. The speaker mounting brackets must be bolted to the sides of the speaker before it is installed in the car.

3. Place the speaker on the work bench, face down with the tone control knob to the right. The small angle bracket with the cage nut must be bolted to the side nearest you. The longest angle bracket must be bolted to the left side of the speaker with the part having the elongated hole directed away from the speaker. The third bracket must be bolted to the right-hand side of the speaker with the caged nut turned under the speaker.

4. Loosen the bolt on the right hand bracket at the dash to which is attached the instrument board reinforcing brace. Slip the "U" shim (furnished in the accessory kit) between the bracket and the brace and then tighten the bolt. (See Figure 5).

5. Place the speaker on the instrument board brace face down with the tone control to the right and securely fasten with the three $\frac{1}{4}$ " No. 20 bolts, nuts and lockwashers.

6. The Receiver connecting cable must be plugged into its receptacle in the speaker.



Control Installation

1. Install the control unit on the instrument board, fitting it in the opening left by the removal of the ash receptacle.

2. Fasten the control head in place by means of the "U" clamp and nuts. (See Figure 6).

3. The volume control flexible shaft is at the top and must be coupled in the lower shaft bushing on the end of the Receiver housing (see Figure 1). The knurled shaft nut must be tightened securely.

4. Before connecting the tuning condenser flexible shaft, use a small screw driver and turn the variable condenser coupling in the Receiver in a counter-clockwise direction as far as it will go.

5. Turn the bottom (tuning control) knob so that the indicator points to "54" on the dial.

6. The tuning control flexible shaft must be coupled in the proper shaft bushing on the end of the Receiver housing (see Figure 1). The knurled shaft nut must be tightened securely.

7. Connect the terminal on the pilot light wire to its receptacle on the end of the Receiver housing (see Figure 1).

8. Connect the antenna lead to its receptacle on the end of the Receiver housing (see Figure 1).

Power Connections

For installations in Code C-1 cars, connect the terminal end of the "A" lead to the switch terminal GA-RAD. Refer to Figure 4 showing the back of the ignition switch.

CODE C-2 and C-3 ONLY

In Code C-2 and C-3 cars, connect the terminal end of the "A" lead to the fuse terminal of the ammeter.

Place the fuse and fuse insulator in the small metal fuse housing on the end of the "A" lead and connect it to the short Receiver "A" lead.

CODE C-1 — IGNITION SWITCH

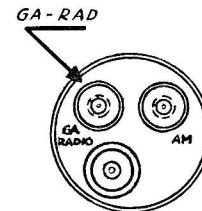


FIGURE 4

REAR VIEW OF IGNITION SWITCH

Motor Interference Suppression

1. Cut the elbow terminals from the spark plug cables and screw on the molded bakelite elbow suppressor terminals. Snap the resistors on the plug terminals.

2. Screw the straight molded resistor on the distributor end of the distributor center lead cable.

3. Plug this into the distributor cap.

4. Install a one mfd. by-pass condenser on the generator. Mount it on the generator frame under the screw that holds the generator relay in place. Connect the condenser lead under the screw that connects the battery lead to the relay.

5. Connect a $\frac{1}{2}$ mfd. condenser to the dome light lead as close as possible to the point where it enters the right front corner post. This connection must be soldered and taped. Drill a $\frac{1}{8}$ " hole in the flange of the instrument board 2" from where it joins the cowl on the right side. Remove the paint from around the hole and fasten the condenser to the flange with an 8-32 bolt and nut.

6. Ground the steering column to the dash. There is a hole in the steering column near the dash opening seal for a No. 8— $\frac{1}{4}$ " self-tapping screw. Scrape the paint off around this hole. Using the bare stranded wire with the two eye terminals, place one terminal under one of the screws that holds the steering column dash seal in place. The other end must be fastened to the steering column with a No. 8— $\frac{1}{4}$ " self-tapping screw.

7. If there is no hole in the steering column near the dash opening seal for a No. 8— $\frac{1}{4}$ " self-tapping screw, scrape the paint from the column near the dash opening seal, solder on a piece of the No. 14 bare stranded wire and ground this wire under one of the screws that holds the steering column dash seal in place.

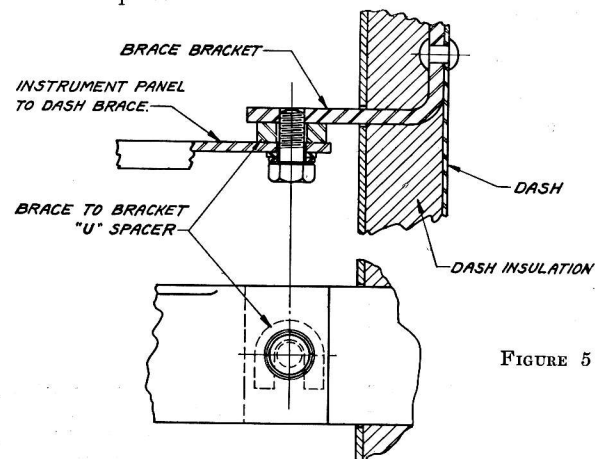


FIGURE 5

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8. Ground the oil line and temperature indicator tube where they enter the dash under one of the gromet cap screws with the No. 14 stranded wire (see Figure 7).

9. Replace the car lighting fuse — test the lights and horn.

10. An additional $\frac{1}{2}$ mfd. condenser may be used to advantage at times. Mount this condenser on the bottom ledge of the instrument board and connect it to one of the terminals of the ammeter or ignition switch behind the instrument board.

CODE C-2 and C-3 ONLY

11. In case there is any motor interference in Code C-2 or C-3 cars, caused by an excessive gap between the distributor rotor and the high tension contacts in the distributor head, this can be overcome by extending the metal end of the rotor.

Follow this procedure carefully: Remove the distributor cap and chalk the inside faces of the stationary contacts. Remove the rotor and place the contact end on a small anvil or steel block. Peen or hammer the end carefully with a small machinists' hammer. Replace the rotor and the cap and then turn the motor over with the ignition turned off.

After a few revolutions, examine the distributor cap to see if the rotor has scraped or touched any of the stationary contacts in the cap. If so, dress lightly with a fine file.

Ignition Switch

CODE C-1 ONLY

When the ignition switch key is in its center position all circuits are disconnected and locked.

When the switch key is turned to the left, the gas gauge registers and the battery supply is connected to the radio.

When the key is turned to the right, the gas gauge registers and the battery supply is connected to the ignition circuit and to the radio.

Operating Instructions

To operate the Receiver, the ignition switch key must first be turned either to the right or to the left, as described above. The upper knob on the radio control is a combination switch and volume control. Turn the volume control knob clockwise. The first range of motion operates the Receiver switch. From there on, it is the manual volume control.

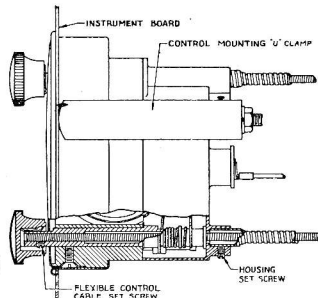


FIGURE 6

With the volume control turned on half way, allow the tubes to heat up. Then turn the lower knob (the station selector) to tune in the various programs. The numbers on the dial represent channel numbers which, with the addition of "0" to the number, correspond to the frequencies 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 the 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.

The tone control knob is on the right hand side of the speaker housing (see Figure 1). It should be adjusted to the tone most pleasing. There are four (4) positions: brilliant, bright, mellow and deep. Speech is clearest when in bright or brilliant, while usually orchestras will sound best on bright or mellow.

Another use of the tone control is as a static modifier. When driving through extremely noisy locations, the tone control should be set on mellow or deep. This will subdue the harsh, rasping static.

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 interferences, 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.

IMPORTANT—When turning off the Receiver, be sure the volume control is turned counter-clockwise until a click is heard and the dial light goes out, otherwise the Receiver will continue to operate and discharge the battery.

REMOVE PAINT FROM UNDER SCREW HEAD

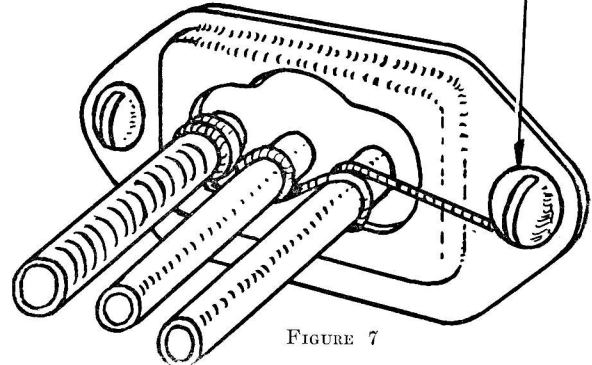


FIGURE 7

WARRANTY

Custom-Built Radios distributed by the Chrysler Corporation are covered by the Radio Manufacturers' Association standard warranty.

"The manufacturer warrants each new Radio Receiver and Speaker manufactured by them to be free from defects in material and workmanship under normal use and service, their obligation under this warranty being limited to making good at their 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 them with transportation charges prepaid, and which their examination shall disclose to their satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on their part, and they neither assume nor authorize any representative or other person to assume for them any other liability in connection with the sale of their Receivers or Speakers.

This warranty shall not apply to any Receiver or Speaker which shall have been repaired or altered outside of their factory or factory depots in any way so as, in their judgement, 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 them."

Refer to the Service Bulletin from your factory covering the complete warranty plan under which you can secure local service from authorized Philco Transitone Service Stations during and after the warranty period.

The DeLuxe Custom-Built Radios for the DeLuxe Airflow Models, Codes C-1, C-2 and C-3 have been designed by Chrysler and Philco Engineers.
Sold Exclusively by the Chrysler Dealers.

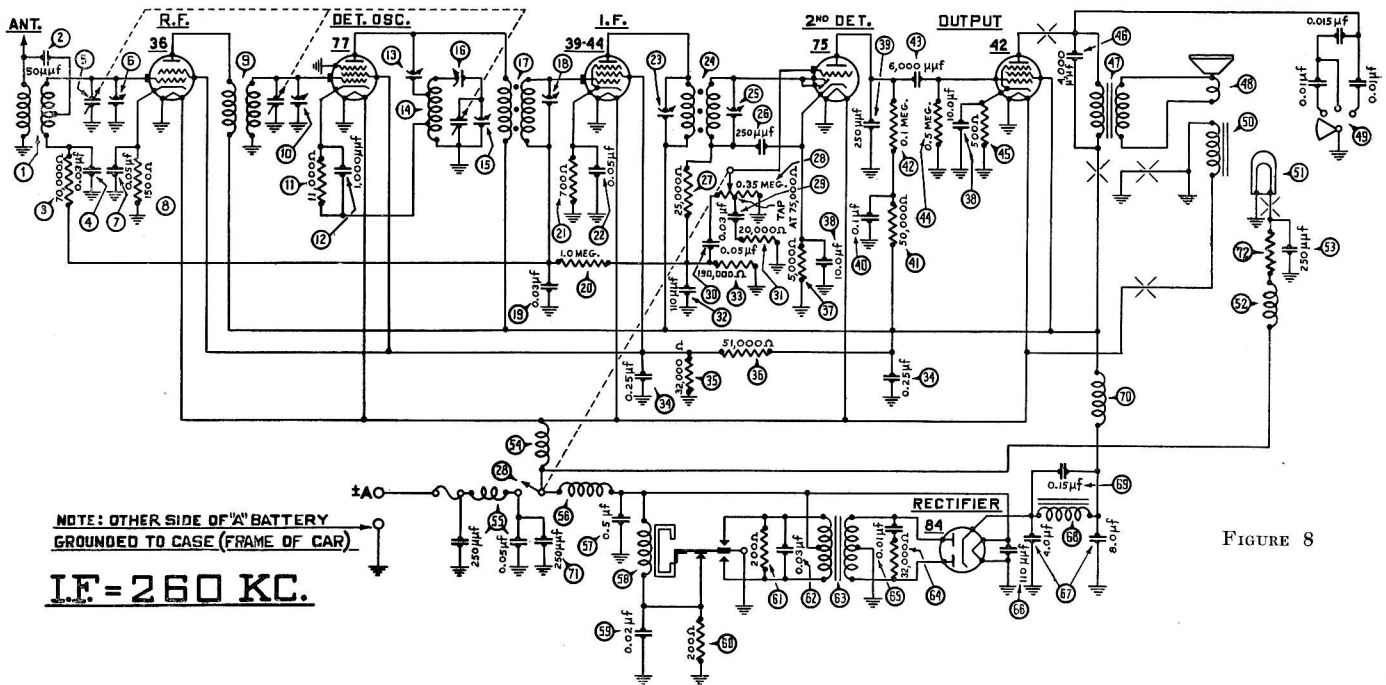


FIGURE 8

Parts List-CT5-DeLuxe Custom-Built Radio for Chrysler Airflow-Codes C-1, C-2 and C-3.

- ① Antenna Transformer..... 32-1535
- ② Condenser (50 mmfd.)..... 30-1029
- ③ Resistor (70,000 ohms)..... 33-1115
- ④ Condenser (.03 mfd.)..... 30-4025
- *⑤ Tuning Condenser..... 31-1425
- ⑥ 1st Padder (on tun. cond.).....
- ⑦ Condenser (.05 mfd.)..... 30-4020
- ⑧ Resistor (1500 ohms)..... 33-3047
- ⑨ R. F. Transformer..... 32-1536
- *⑩ 2nd Padder (on tun. cond.).....
- ⑪ Resistor (11,000 ohms)..... 33-1194
- ⑫ Condenser (1000 mmfd.)..... 30-1007
- ⑬ Padder (Pri. 1st I. F. Tran.).....
- ⑭ Oscillator Transformer..... 32-1537
- *⑮ 3rd Padder (on tun. cond.).....
- *⑯ 4th Padder (on tun. cond.).....
- ⑰ First I. F. Transformer..... 32-1538
- ⑱ Padder (Sec. 1st I. F. Tran.).....
- ⑲ Condenser (.03 mfd.)..... 30-4025
- ⑳ Resistor (1 meg.)..... 33-1096
- ㉑ Resistor (700 ohms)..... 6443
- ㉒ Condenser (.05 mfd.)..... 30-4020
- ㉓ Padder (Pri. 2nd I. F. Tran.).....
- ㉔ Second I. F. Transformer..... 32-1449
- ㉕ Padder (Sec. 2nd I. F. Tran.).....
- ㉖ Condenser (250 mmfd.)..... 30-1032
- ㉗ Resistor (25,000 ohms)..... 33-1161
- ㉘ Vol. Con. & Switch Assm..... 33-5088
- ㉙ Condenser (.03 mfd.)..... 30-4025
- ㉚ Condenser (.05 mfd.)..... 30-4020
- ㉛ Resistor (20,000 ohms)..... 33-1130
- ㉜ Condenser (110 mmfd.)..... 30-1031
- ㉝ Resistor (190,000 ohms)..... 33-1116
- ㉞ Condenser (.25-.25 mfd.)..... 30-4231
- ㉟ Resistor (32,000 ohms)..... 3525
- ㊱ Resistor (51,000 ohms)..... 5868
- ㊲ Resistor (5,000 ohms)..... 6096
- ㊳ Condenser (10-10 mfd.)..... 30-2076
- ㊴ Condenser (250 mmfd.)..... 30-1032
- ㊵ Condenser (.1 mfd.)..... 30-4170
- ㊶ Resistor (50,000 ohms)..... 6098
- ㊷ Resistor (.1 meg.)..... 6099
- ㊸ Condenser (6000 mmfd.)..... 30-4125
- ㊹ Resistor (.5 meg.)..... 6097
- ㊺ Resistor (500 ohms)..... 33-3031
- ㊻ Condenser (4000 mmfd.)..... 30-4185
- ㊼ Output Transformer..... 2598
- ㊽ Cone & Voice Coil..... 36-3159
- *㊾ Tone Control..... 30-4127
- ㊿ Field Coil Assembly..... 02795
- ① Pilot Lamp..... 34-2040
- ② Choke..... 32-1374
- ③ Condenser (250 mmfd.)..... 30-1032
- ④ "A" Choke..... 32-1374
- ⑤ Interference Filter..... 32-1534
- ⑥ Vibrator Choke..... 32-1563
- ⑦ Condenser (.5 mfd.)..... 30-4015
- ⑧ Vibrator..... 38-5036
- ⑨ Condenser (.02 mfd.)..... 30-4039
- ⑩ Resistor (200 ohms)..... 7217
- ⑪ Resistor (200 ohms)..... 7217
- ⑫ Condenser (.03 mfd.)..... 30-4025
- ⑬ Power Transformer..... 32-7315
- ⑭ Resistor (32,000 ohms)..... 3525
- ⑮ "B" Choke..... 32-7254
- ⑯ Condenser (.15 mfd.)..... 30-4191
- ⑰ R. F. Choke..... 32-1530
- ⑱ Condenser (250 mmfd.)..... 30-1032
- *Ground Clip..... 28-2488
- Spark Plug Resistor..... 33-1015
- Distributor Resistor..... 33-1113
- Interference Cond. (1 mfd.)..... 4522
- Interference Cond. (1/2 mfd.)..... 30-4007
- Fuse..... 7227
- Fuse Insulator..... 27-7131
- *Antenna Lead..... 38-6355
- *"A" Lead..... 38-6552
- *"U" Clamp (Control Mtg.)..... 29-1808
- *Nut (Control Mtg.)..... W98A

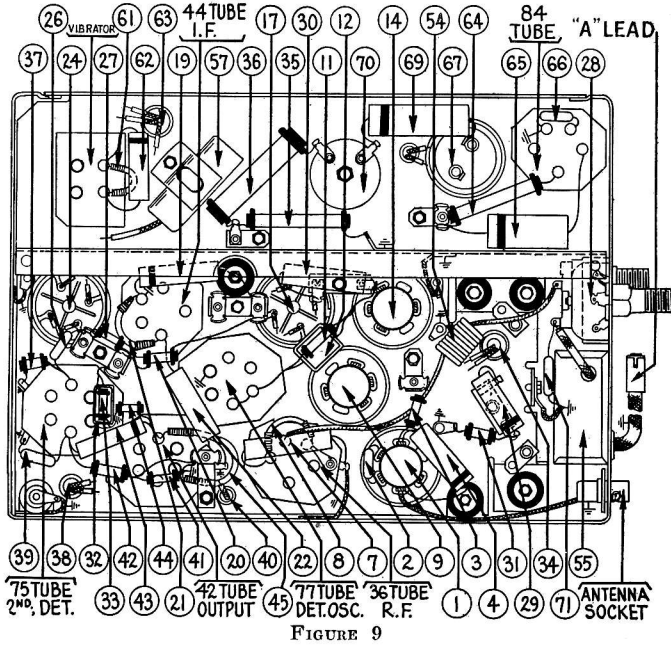


FIGURE 9

- *Glove Box Door Brkt. (Upper)..... 29-2621
- *Glove Box Door Brkt. (Lower R. H.)..... 29-2622
- *Glove Box Door Brkt. (Lower L. H.)..... 29-2623
- *Bolt (Set Mtg. Front)..... W1441B
- *Bolt (Set Mtg. Rear)..... W1353B
- *Nut (Set Mtg. Front)..... W98B
- *Nut (Set Mtg. Rear)..... W317B
- *Scale Assembly..... 42-5263
- *Knob..... 27-4161
- *Flex. Shaft (Tun.)..... 28-8324
- *Flex. Shaft (Vol.)..... 28-8325
- *Speaker Cable..... 41-3126
- *Speaker Mtg. Brkt. (R.H.)..... 36-3428
- *Speaker Mtg. Brkt. (L.H.)..... 29-2587
- *Speaker Mtg. Brkt. (Rear)..... 36-3429
- *Screw (Speaker Mtg.)..... W99B
- *Screw (Speaker Mtg.)..... W285B
- *Nut (Speaker Mtg.)..... W98B

NOTE: The items marked with an asterisk are rarely required for service and will not generally be carried in stock by the local Philco Transitone service station. In case these parts are needed and they cannot be secured locally, they should be ordered by Part Number, C. O. D. from the nearest factory branch.

PHILCO TRANSITONE, "A" and Allegheny Avenue
 PHILCO TRANSITONE, 1951 E. Ferry St., Detroit, Mich.

PHILCO TRANSITONE, 3335 W. 47th St., Chicago, Ill.
 PHILCO TRANSITONE, 218 Fremont St., San Francisco, California