

That must be a



# PHILIPS AUTORADIO

PHILIPS ELECTRICAL INDUSTRIES OF N.Z. LTD., 2 BOND ST., P.O. BOX 2097, WELLINGTON

## INSTALLATION AND OPERATING INSTRUCTIONS FOR PHILIPS AUTO RADIO TYPE 656

On receiving this set, check that everything is present. With each set there should be:-

1. Guarantee card.
2. Loudspeaker with lead, in universal baffle case and envelope containing fixing screws etc.
3. One perforated fixing strip.
4. Packet of screws, washers, etc.
5. Battery lead with fuse and cartridge.
6. One bracket for under-dash mounting, normally attached to radio.
7. A set of FOUR dial scales, showing local stations in each area.

### TECHNICAL DATA:-

Valves ECH42 - frequency changer.

EF 41 - I.F. amplifier

EAF42 - detector and a.f. amplifier

EL 42 - power valve.

DIAL ILLUMINATION LAMP - 7994N for both 6 and 12 volt operation.

NOTE:- It is not necessary to change dial lamp when changing voltage and/or polarity.

Fuse :- The set is supplied complete with a 3.15 amp. fuse for 12 volt operation. FOR OPERATION ON SIX VOLTS, IT IS NECESSARY TO CHANGE THE FUSE TO A VALUE OF 6.3 amps.

ibrator :- New synchronous element AP6002.

Volume Control :- Two-position high-note control.

Power Consumption :- 4 amps at 7.2 volts

2 amps at 14.4 volts.

Dimensions :- Height - front  $2\frac{1}{8}$  inches

rear  $3\frac{1}{8}$  inches

Width - 7 "

Depth -  $7\frac{1}{8}$  inches

Power switch :- This on/off switch is incorporated in the volume control on the right-hand side of set.

### INSTALLATION

A drilling template is packed with each set.

This set is supplied for operation from a 12 volt supply, with the positive pole of the battery connected to earth. VOLTAGE AND POLARITY CAN QUICKLY BE CHANGED BY REMOVING THE COVER FROM THE SET AND ADJUSTING THE LINKS AND CONNECTIONS AS SHOWN P.T.O.

Sales Offices at:



**AUCKLAND**  
141-143 HOBSON ST.  
P.O. BOX 5124

**WELLINGTON**  
30-32 CUBA ST.  
P.O. BOX 2097

**CHRISTCHURCH**  
800 COLOMBO ST.  
P.O. BOX 1488

**DUNEDIN**  
89 GREAT KING ST.  
P.O. BOX 143

IN FIGURES 1,2,3,4.

### MOUNTING THE RECEIVER

First check (1,2,3,4) that the receiver is set up for the correct voltage and earth polarity for the car to which it is being fitted.

#### (a) Under instrument panel or tray

Check whether the receiver can be fitted under the instrument panel or tray in or near the centre without interfering with the car controls or fittings.

It should be installed within easy reach of the driver.

The front spring plate bracket should be used to mark through the two end fixing holes. Drill with a suitable size drill and secure the spring plate bracket to the lip of the instrument panel or tray using the screws and nuts supplied in the installation packet. Self tapping screws may be used instead of the nuts and screws. Locate the two mushroom headed screws on the front of the receiver in the enlarged slots in the spring plate bracket, push up and slide forward to secure. Fasten the rear of the receiver using one of the perforated fixing strips. This strip should be bent to give the shortest and most rigid fixing. It should be fixed to the receiver by the screw at the bottom or rear centre of the receiver and to the bulk-head or tray by drilling a hole. If the instrument panel is of wood, holes should be drilled first to avoid splitting.

#### (b) In the instrument panel

(a) Where space and a front aperture are provided by the car manufacturer for the mounting of a radio receiver.

This receiver can be fitted by means of simple brackets made by bending the perforated strips provided to suit the type of car to which the set is being fitted.

(b) Where no front aperture is provided but space is available.

At the bottom left of this sheet is a drilling template which should be cut out and stuck to the most suitable place on the dashboard. Make the opening for the dial and the spindle holes in the dashboard. Unless you have the correct tool and feel competent, the drilling and cutting of the instrument panel would be best done by your garage. To fit the set, remove the knobs, brass rings, spiral springs and front plate and place the receiver in the dashboard. Secure with the chromium washers and hexagonal nut supplied in the installation packet and reassemble the parts taken off in the reverse order. Fit the perforated strip at the back of the set as in figure 5.

### LOUDSPEAKER

The loudspeaker normally used with this set is of a special 5" high-sensitivity type, already mounted in a plastic universal baffle case (see figures 6 and 7).

If desired, this set can be supplied with individually selected speakers, available from our range, which includes:-

Type AF9742FE (5") with 6ft of cable  
" AF9744FY (6") " " " "

THESE SPEAKERS ARE MOUNTED IN SPACE PROVIDED BY THE CAR MAKER. IF NO SUCH SPACE IS PROVIDED, IT WILL BE NECESSARY TO USE THE FOLLOWING PARTS:-

For a 5" speaker, use GRILLE AF7201 and RING AF7202

For a 6" speaker, use GRILLE AF7203 and RING AF7204.

In fitting the high-sensitivity 5" loudspeaker mentioned ~~above~~, note that TWO leads come from the bottom of the receiver, one white and one black. They are connected to one side of the two terminal block connector which is already secured to the bottom of the set. The leads from the speaker are then connected to the other side of this junction block.

IF IT IS DESIRED TO USE A DIFFERENT TYPE SPEAKER AT A REMOTE POINT FROM THE SET, IT WILL BE NECESSARY TO USE A REQUIRED LENGTH OF DOUBLE CORE SCREENED LEAD OBTAINABLE FROM ALL AUTO RADIO DEALERS. WHEN USING THIS TYPE OF LEAD MAKE SURE THAT THE BLACK LEAD (LIVE) IS CONNECTED TO THE WHITE LEAD FROM THE SET VIA THE JUNCTION BLOCK (mentioned above).

#### TESTING THE INSTALLATION

Switch on set and allow time to warm up.

Tune the set by turning the tuning knob so that the pointer is set on a frequency of approximately 600 kilocycles on the dial (i.e. near the position of 2YA). Now connect the aerial to the aerial socket on the left-hand side of the set (figure 11) and slide aside the cover over the antenna trimming condenser. Adjust this condenser by rotating (slowly) using the correct insulated trimming tool. When maximum volume of noise level is obtained, the set is correctly adjusted. DO NOT FORGET TO REPLACE THE TRIMMING CONDENSER COVER.

#### SUPPRESSION

Car manufacturers now fit suppressors to the ignition system of their cars, but do not suppress coil or generator.

NORMALLY THE SUPPRESSION BUILT INTO THIS SET IS SUFFICIENT TO AVOID ANY WORRY, BUT IF EXTRA SUPPRESSION IS NEEDED, YOUR PHILIPS DEALER CAN FIT THE NECESSARY CAPACITORS AND RESISTOR (fitting of these parts is shown in figures 8,9,10.)

# PHILIPS AUTORADIO

## INSTALLATION AND OPERATING INSTRUCTIONS

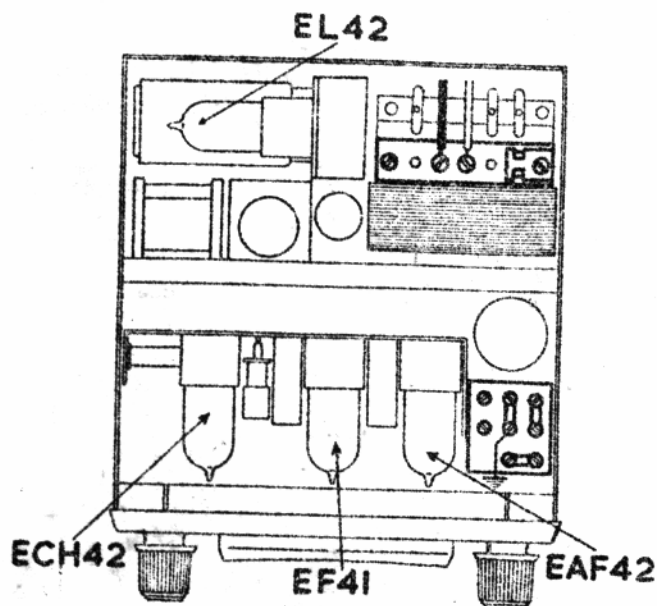


Figure 1

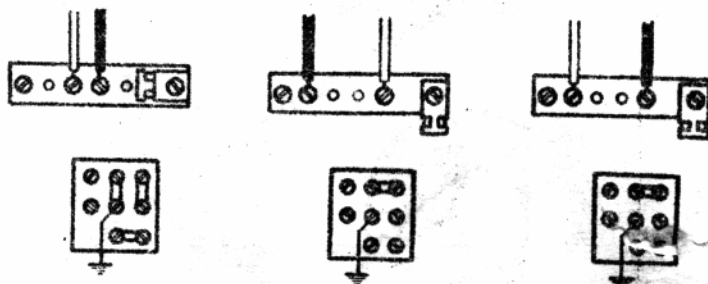


FIG. 2 6 V. "+" chassis FIG. 3 12 V. "-" chassis FIG. 4 12 V. "+" chassis

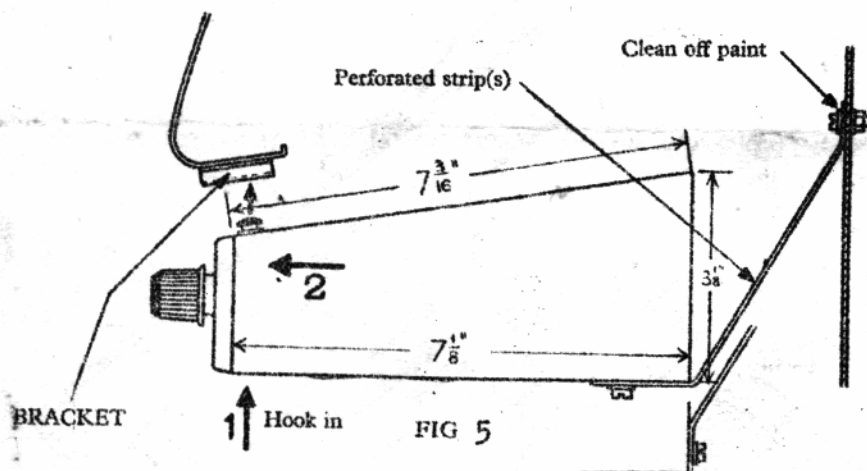


FIG 5

See figure 6 overleaf

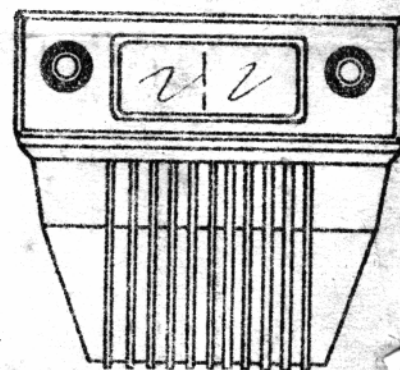


Figure 6

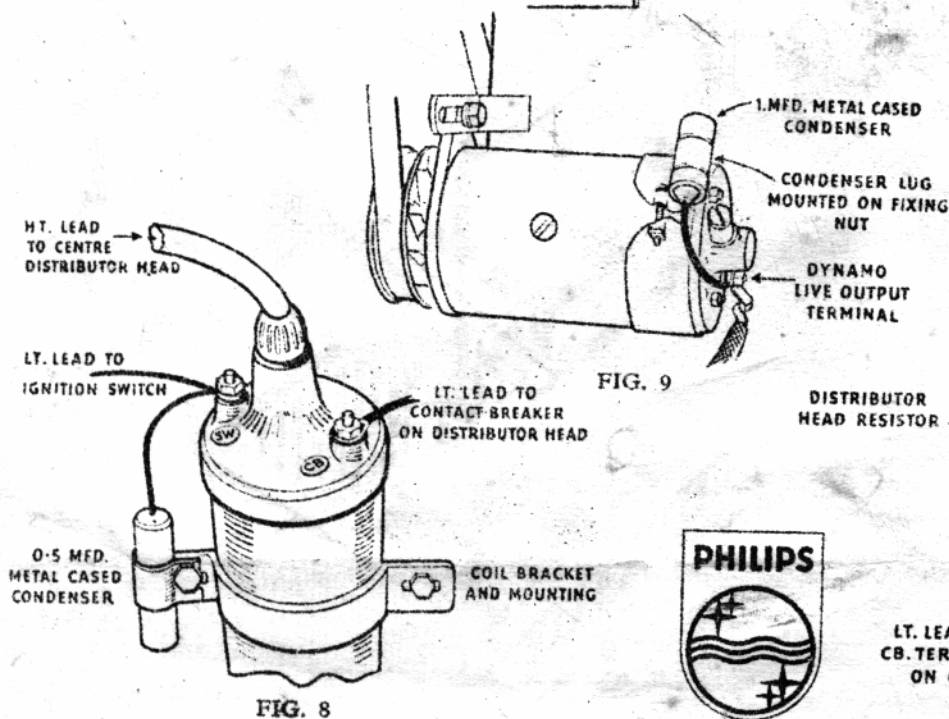


FIG. 8

FIG. 9

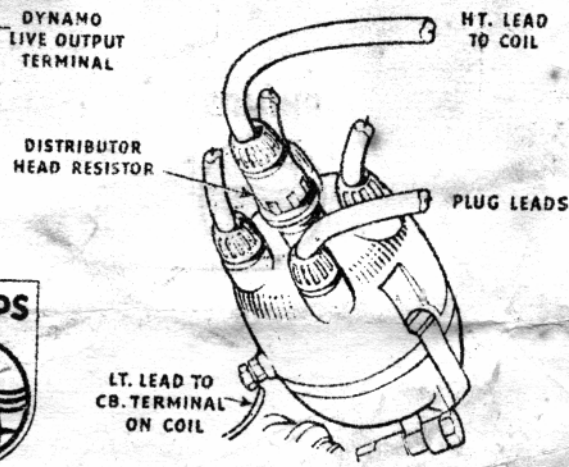


FIG. 10

# PHILIPS AUTORADIO

INSTALLATION AND OPERATING INSTRUCTIONS

MODEL 656

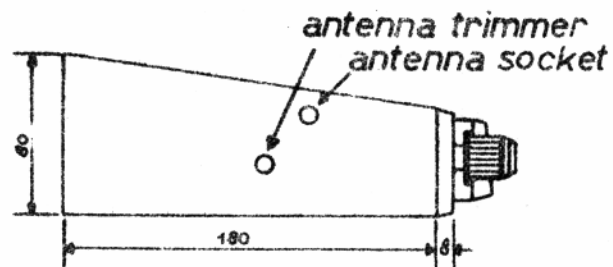


Figure 11

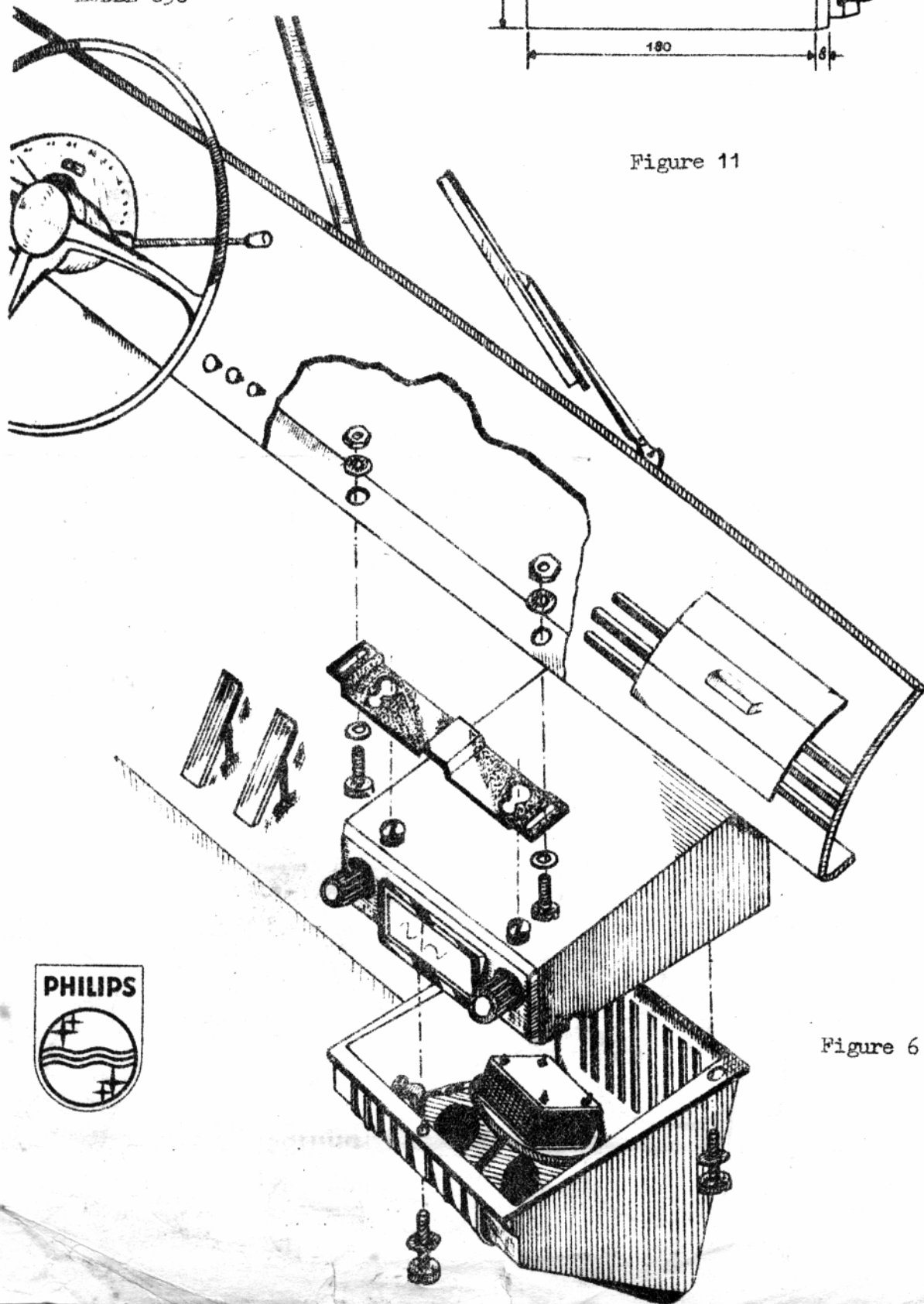


Figure 6





# Let's talk **RADIO**



PHILIPS ELECTRICAL INDUSTRIES OF N.Z. LTD., 181-195 WAKEFIELD ST., P.O. BOX 2097, WELLINGTON

## PHILIPS "AUTOMATE" CAR RADIO

### 6 Volt Operation.

#### Warning:

We have had isolated cases where on converting the car radio Model 656 to 6 volt operation, that the screws marked "X" - Figure 1 of the enclosed diagram, short against the case if undue pressure is applied to the top of the case when installing. To obviate this a strip of sticking plaster or insulating material should be fastened on the inside of the case above the screws.

### PRODUCT MAINTENANCE DIVISION.

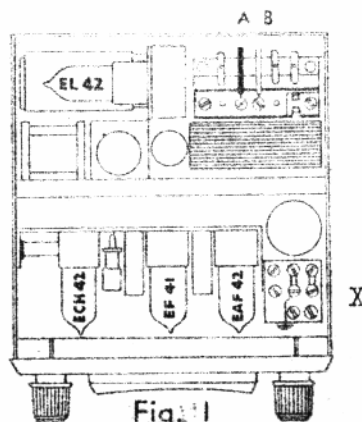


Fig. 1

Location of voltage and polarity adjustments shown connected to 6 volt negative chassis. For 6 volt positive chassis interchange leads A and B.

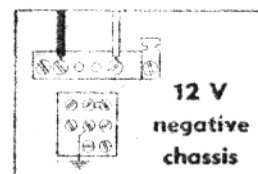


Fig. 2

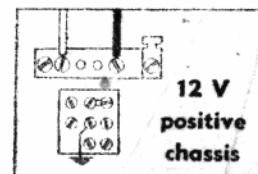


Fig. 3

Sales Offices at:

**AUCKLAND**

141-143 HOBSON ST.  
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