5 LI

Testing Regulator Cut-Out Switch

Note:

Before making this test the battery must be in good condition and at least half-charged (Specific gravity 1.230).

a) **Cut-Out Closing**

1. Connections as for previous test. If necessary reset variable resistor to nominal output and check setting with ammeter as in 4 LI, Fig. 9.
2. Start engine and slowly increase speed. Voltage should increase but no current should flow, indicating that the cut-out switch is open. When the cut-out switch closes, the indicated voltage drops slightly and the ammeter begins to register. Leave the engine running at idle speed. The maximum voltmeter reading before the hand jumps back indicates the closing voltage. The value should be within the limits shown on page L 85. If it does not, the cut-out switch should be adjusted.

b) **Cut-Out Opening**

1. Set regulator to zero. Connect battery lead "51 B+" (insulated until now) to negative lead of ammeter. Connect positive lead of ammeter to terminal "B 51+" of the regulator (Fig. 10).
2. Increase engine speed until ammeter shows a charging current. Gradually reduce engine speed; the ammeter will pass the zero mark and indicate a negative reading before finally returning to zero. The maximum reading of the ammeter shows the opening current required to disconnect the battery from the generator. This value should lie in the range specified on page L 85. If the contacts open while ammeter shows a positive reading, the relay windings are shorted and the regulator must be replaced. The engine idle speed should preferably be set so that the ammeter rests on zero at normal engine temperatures. The ammeter must in any event indicate zero before the engine finally stops. If this does not occur the cut out switch must be adjusted by an auto electric shop or be replaced (sticking contacts).

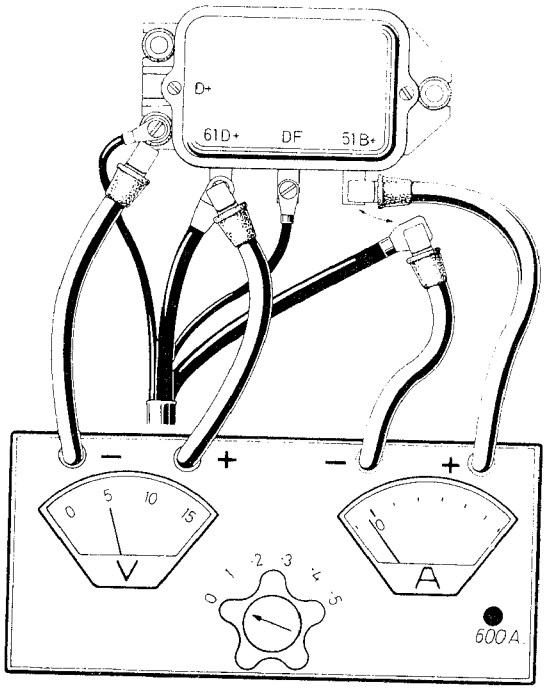

Fig. 10

6 LI

Removing and Installing Regulator

Removal

1. Disconnect all cables from regulator.
2. Remove mounting screws and remove regulator.

Installation

The installation is accomplished in the reverse order of removal observing the following points:

1. When replacing a regulator, first check that the field coils of the generator are not grounded.
2. Connect cables according to wiring diagram on regulator box.
3. Polarize generator (see 8 LI Note).
4. If incorrect readings are again obtained after installing a new regulator, the generator or the wiring may be at fault and an auto electric specialist should be consulted.

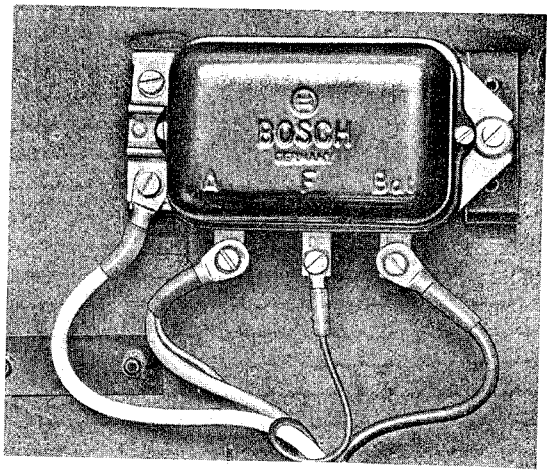

Fig. 11