

SOLID STATE REVERSE CURRENT CUT-OUT

Installation Instructions

This *state-of-the-art* semiconductor unit modernizes and replaces the original relay type of past years. It is designed to continuously handle the 20 ampere maximum output of the original Ford DC third brush generator. It can be used on Model 'T', Model 'A', and early Ford V-8 systems.

The cut-out electrically connects the generator to the battery whenever the output voltage is greater than the battery voltage. It disconnects the two whenever the battery voltage is greater than the generator output voltage. The battery thus does not discharge by powering/motoring the generator.

There are no mechanical/moving internal parts to "stick" as in the conventional relay cut-out. Tapping on the cover only defaces, nicks and degrades the external appearance.

The decal on the mounting base bottom identifies the application for use on a positive or negative battery ground car. The proper polarity cut-out should be selected before installation.

1. **Disconnect electrical system power at the battery terminal or remove the system protective fuse.**
2. **Remove present cut-out from top of the generator:**
 - a. Remove screw connecting battery and other wire terminals to the cut-out.
 - b. Loosen nut connecting cut-out "L" foot to generator output-stud.
 - c. Loosen two cut-out base hold-down screws.
3. **Install new cut-out on top of the generator:**
 - a. Slide cut-out "L" foot under generator stud washer and nut; tighten nut.
 - b. Slide cut-out mounting base slots under hold-down washer and screws; tighten screws.
 - c. Reconnect battery wire and other wire terminals to the cut-out output with the kit supplied washer and screw; position the black insulator so that it seats properly into the can square opening and conforms to the can round contour. Tighten the screws snugly.
4. Loosen the generator drive belt.
5. Reconnect the battery/fuse to power the electrical system.

If the generator runs like a motor, the incorrect cut-out has been installed! The car system is the OTHER battery grounded polarity. The proper cut-out must be installed.

If the generator does not motor:

- ▶ Re-tighten the pulley drive belt
- ▶ Start the engine; gradually increase speed; observe ammeter shows 'charge' current.
- ▶ Readjust the generator third brush (if necessary) for desired charging current versus engine speed and value of total generator output.

At high current demands (as when the head lights are "ON" and the engine speed is proper for the current demand), the cut-out and car wiring supply the necessary major generator current directly to the head light load. The ammeter consequently shows only a small battery charging current. With the lights "OFF" the ammeter then shows the charging current going to the battery. The ammeter always shows only the current draining or charging the battery. It does not show the current the generator supplies to the other loads.

Depending upon the magnitude of current and driving time, the cut-out cover and base will feel warm/hot to touch. **This is a normal condition.** The heat of the semiconductor is being transferred to the can and base for dissipation to the atmosphere and generator housing.

NOTE: REMOVAL OF THE CAN FROM ITS MOUNTING BASE DISTURBS THE CUT-OUT HEAT CONDUCTION CONTROL SYSTEM AND INVALIDATES ALL WARRANTY CONSIDERATIONS.