



# **BATTERY DISCHARGE PROTECTION SYSTEM (KIT 192-900)**

## **COMPLETE BATTERY PROTECTION**

### **AGAINST**

**DEEP DISCHARGING • OVER USE OF ACCESSORIES • PARASITIC DRAIN**

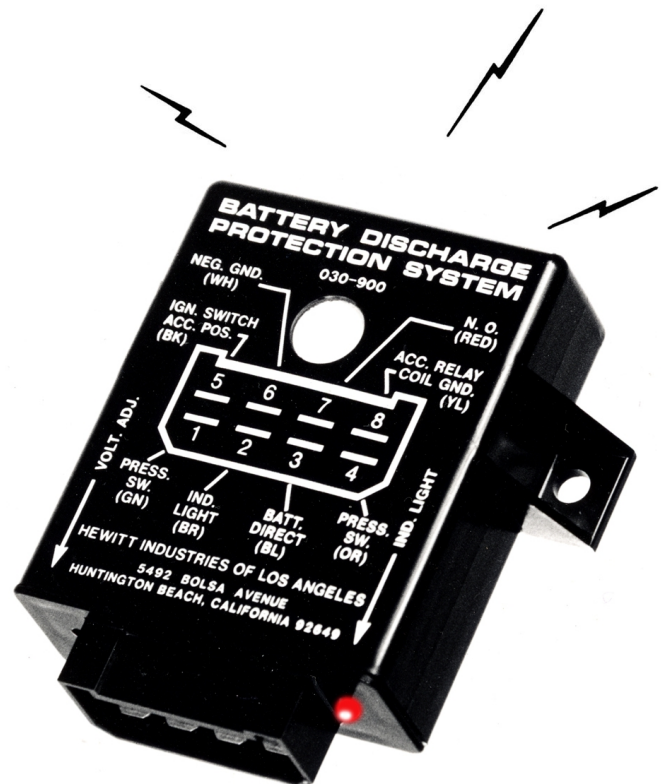
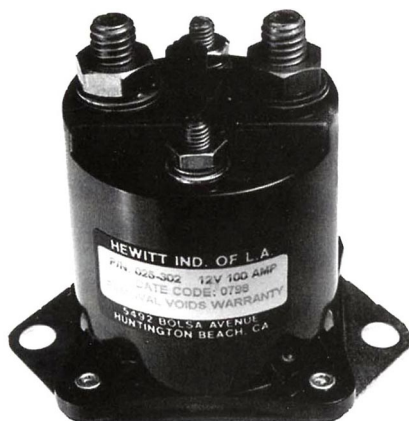
**— THE BATTERY KILLERS —**

**ASSURES RESTART VOLTAGE • EXTENDS BATTERY LIFE**

**— NO MORE JUMP START —**

### **APPLICATIONS:**

- TRUCK – CAB AND SLEEPER
- CAR CARRIERS
- CARGO LIGHTS
- LIFT GATES
- MARINE
- PICKUPS AND VANS
- RV'S / MOTOR HOMES
- AUTOS



- LOW COST
- EASY TO INSTALL
- THREE - YEAR WARRANTY
- NO LIMIT TO USEFUL LIFE

# **BATTERY DISCHARGE PROTECTION SYSTEM**

## **(DEEP DISCHARGING SHORTENS BATTERY LIFE)**

### **DESIGN FEATURES:**

This system constantly monitors battery voltage and sounds an alarm upon low voltage, notifying the driver to start the engine or limit the accessory use. Installation of the system can be made in minutes. It can also be connected to automatically disconnect all accessory circuits at a preset voltage when the engine is shut down (sensed by oil pressure) assuring adequate voltage for engine restart. **No more jump starts are necessary.** See wiring diagram on sheet 4. When battery voltage reaches the preset level (suggested 12 volts) a panel mounted light illuminates. If voltage remains low for eight seconds, the light begins to flash with audio alarm, indicating impending accessory switch off. After twenty seconds all connected circuits are switched off and the audio alarm stops. A flashing light remains until the system is reset by cycling the ignition or starting the engine

### **COMPONENTS:**

P/N 030-900 has all of the functions and features previously mentioned and includes an oil pressure switch (P/N 020-308), plus a low voltage indicating lamp (P/N 710-009).

### **APPLICATIONS:**

**Cab and sleeper:** Both key accessories and sleeper constant power accessories can be protected separately by taking supply from all batteries, which allows much longer accessory use time. Especially for sleepers equipped with refrigerators, televisions, fans, air conditioners, heaters, microwave ovens and lights.

**Lift gates / Car carriers:** Battery protection for these applications is critical, due to the high battery demand to operate hydraulics. This system reliability notifies the operator of low batteries, requiring that the engine be restarted before it is too late.

**Motor homes / Recreational vehicles:** With this system, a separate battery for engine and accessories are no longer required. The system assures engine restart voltage plus longer accessory use time.

**Adjusting set point:** On the connector end of the module is an adjusting screw requiring a small, jeweler size screwdriver. Turn counter clockwise to lower and clockwise to raise. The module is adjustable by 0.1 volts, 1/2 turn equals 0.3 volts.

**Accessories:** Solenoid switch (P/N 025-302). Relays 100 amps constantly.

Solenoid switch (P/N 405-006) Relay, reset.

Battery discharge protection system tester (P/N 030-705). Voltage setting and system testing.

### **SELF TEST:**

With each engine start-up the system self tests, indicating by a light and audio alarm for three seconds. The circuitry includes a momentary low voltage trigger for this purpose. The Battery Discharge Protection System can be connected to control existing relays, either internally grounded relays or externally grounded relays.

### **WIRING METHODS:**

Diagram indicates wiring method for protecting key switch accessories using 100 amp continuous duty relay and wiring method for protecting constant power circuitry by paralleling relays. See wiring diagram on sheet 4.

# BATTERY DISCHARGE PROTECTION SYSTEM

## INSTALLATION PROCEDURE:

### 1. ECM (P/N 030-900)

Mount as convenient using supplied double back tape or with hardware into mounting holes under instrument panel with connector facing down.

### 2. Switching Relay (P/N 025-302)

(Existing relays may be used)

For ignition and constant power accessories. Position relay near power bus between battery and bus to connect accessories. Ignition voltage source must be connected to constant power (unprotected).

### 3. Low Battery Light Indicator (P/N 710-009)

Select location and drill 1/2 inch hole to accept part. Make wire connections through hole before inserting lamp assembly in hole. Connect brown wire from harness to white wire on lamp and black wire of lamp to "A" terminal of accessory relay. Place lamp in hole and press firmly in place.

### 4. Oil Pressure Switch (P/N 710-820)

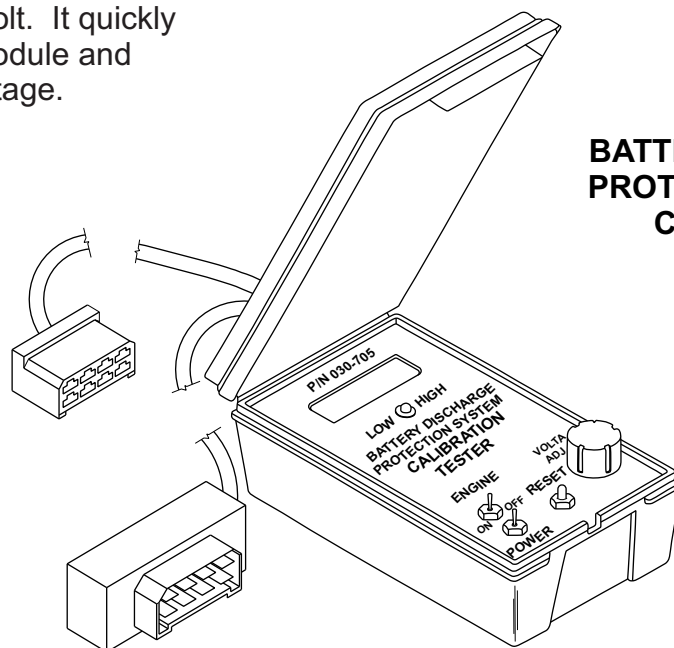
Install in engine oil pressure port or inline to oil pressure gauge.

### 5. System Harness (P/N 071-820)

Includes mating connector to ECM with 6 foot color coded wire lengths for maximum requirements, inline reset relay connector, conduit and securing ties.

### Calibration / Tester (P/N 030-705)

A calibration / tester combination is available for module testing or adjusting by 1/10th of a volt. It quickly interconnects between module and harness using vehicle voltage.



**BATTERY DISCHARGE  
PROTECTION SYSTEM  
CALIBRATION  
TESTER  
P/N 030-705**

