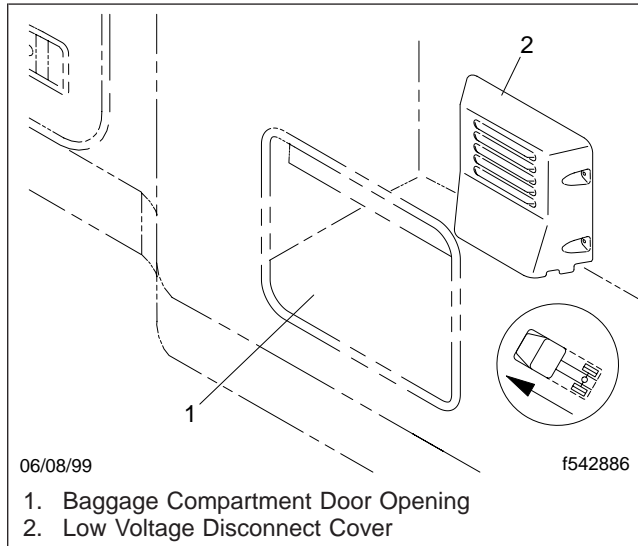


### General Information

The optional low voltage disconnect (LVD) module is mounted inside the driver's side exterior baggage compartment, against the back wall. The module is protected by a molded plastic cover. See **Fig. 1**.



**Fig. 1, Low Voltage Disconnect Mounting**

The low voltage disconnect module monitors battery voltage levels. If battery voltage falls below 12.3 volts, the LVD module will sound a warning buzzer for one minute. If no action is taken within that time, the LVD module will remove power to predetermined cab and sleeper circuits and an LED indicator on the module will be illuminated.

The LVD module will turn off power to the following main cab circuits (if installed):

- CB power (circuit 295C)
- Cigar lighter (circuit 5)
- Dome, reading and map lights (circuits 41, 108A, and 109A)
- Extra dash switches (circuit Opt.)
- Locating and positioning system (circuit 427A)
- Mirror heat and power (circuit 80 and 157)
- Power windows (circuit 363R and 363L)
- Radio power (circuit 295B)
- Road lights (circuit 28D)

- Utility lights (circuit 73)

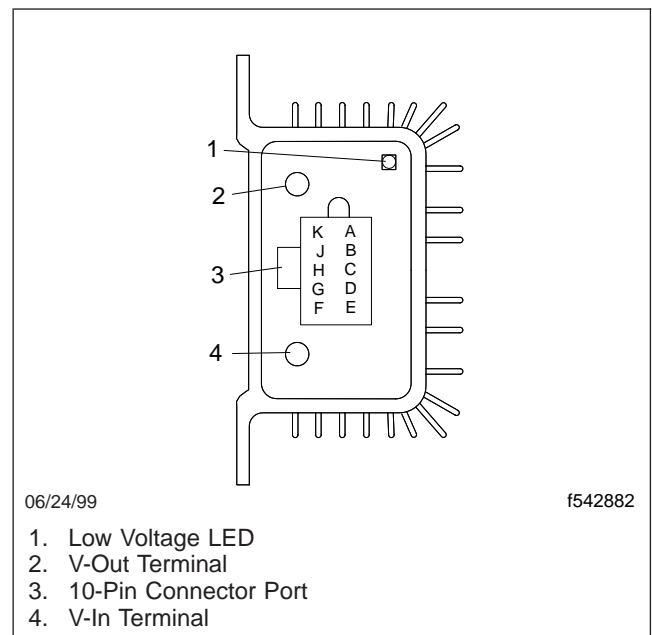
The LVD module will turn off power to the following sleeper circuits:

- Baggage compartment lights (circuit 113)
- Dome and reading lights (circuit 41/41J)
- Power receptacles (circuits 57A, 57B, 57S, and 416)
- Refrigerator/cooler power (circuit 57B)

Once battery voltage reaches 13 volts, or if the vehicle is started, the LVD module will automatically reconnect power to the predetermined circuits.

The LVD module incorporates a 60-second time delay to prevent false triggering and is equipped with internal short circuit protection, over current protection, transient voltage suppression, and thermal protection.

The LVD module has two terminal post connections, a 10-pin connector port, and an LED indicator, all mounted on the side of the module. See **Fig. 2**.



**Fig. 2, Low Voltage Disconnect Module (side view)**

The two terminal post connections are V-in and V-out. The V-in terminal (circuit 447) is the voltage supply input from the circuit breaker/relay panel, and protects the LVD module by passing through a 50-amp circuit breaker. The V-out terminal (circuit 447H)

### General Information

is the controlled voltage output from the LVD module to the ISO bus power input terminal of the circuit breaker/relay panel (predetermined cab and sleeper circuits). It also supplies power to the warning buzzer (circuit 447J).

The 10-pin connector contains circuit 447B, which is connected to the battery, and is used by the LVD module to monitor the level of battery voltage. It contains the module's ground circuit (GND), also connected to the battery; and it contains the warning buzzer circuit (447G), which sounds the warning buzzer when the LVD module detects low voltage.

## Low Voltage Disconnect Module Removal and Installation

### Removal

1. Park the vehicle on a level surface. Shut down the engine. Set the parking brake and chock the tires.
2. Disconnect the batteries.
3. Open the exterior baggage compartment door on the left hand side, aft of the door. The low voltage disconnect module is located behind the protective plastic cover mounted on the back wall. See **Fig. 1**.
4. Unfasten the four Torx® head fasteners and remove the protective plastic cover.

**CAUTION**

**To prevent damage to the low voltage disconnect module, remove the ground wire from the ground terminal last.**

5. Remove the low voltage disconnect module.
  - 5.1 Note the position of the wiring on the terminals and remove the wiring from the screw terminals on the side of the low voltage disconnect module. See **Fig. 2**.
  - 5.2 Remove the six mounting fasteners, three above and three below the module, from the baggage compartment backwall, and remove the low voltage disconnect module.

### Installation

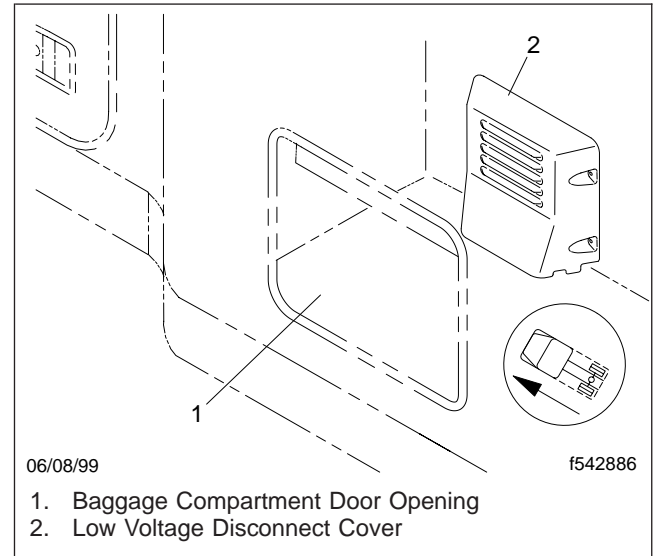
1. Install the low voltage disconnect module inside the left-hand exterior baggage compartment, against the backwall.
  - 1.1 Place the module against the backwall and install the six Torx-head fasteners. Tighten them firmly.

**CAUTION**

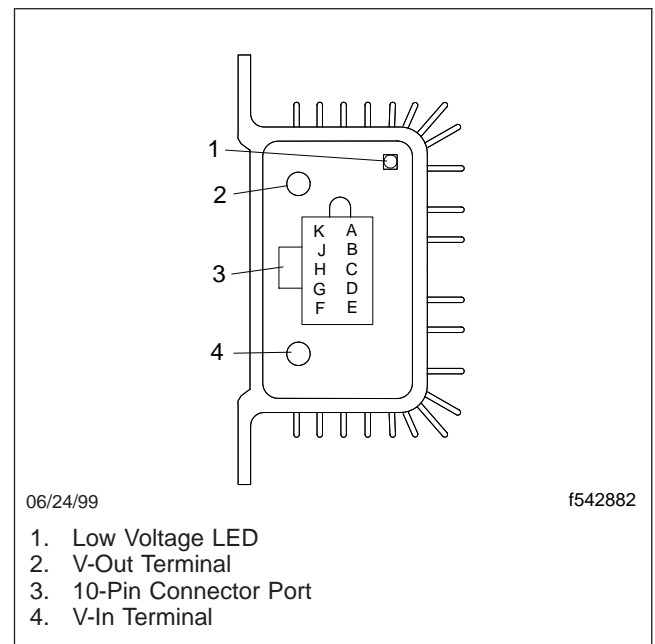
**To prevent damage to the low voltage disconnect module, connect the ground wire to the ground terminal first.**

- 1.2 Install the wiring to the terminals on the top of the low voltage disconnect module. See **Fig. 2**.

2. Attach the protective plastic cover to the back-wall with four Torx-head fasteners.
3. Close the baggage compartment door.
4. Connect the batteries.
5. Remove the chocks from the tires.



**Fig. 1, Low Voltage Disconnect Mounting**



**Fig. 2, Low Voltage Disconnect Module (side view)**

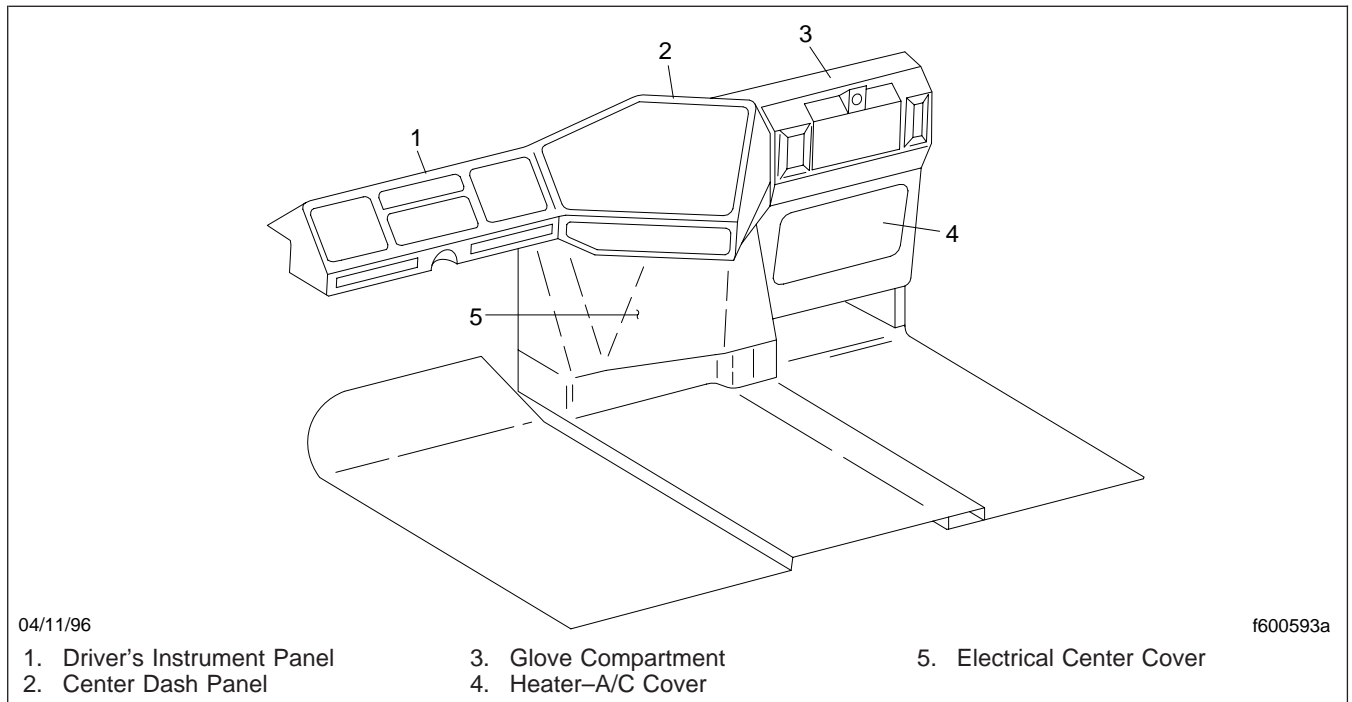
## Low Voltage Disconnect Warning Buzzer Removal and Installation

### Removal

1. Park the vehicle on a level surface. Shut down the engine. Set the parking brake and chock the tires.
2. Disconnect the batteries.
3. Remove the electrical center cover. See [Fig. 1](#).

standard hardware fasteners. See [Fig. 2](#). Tighten the fasteners firmly.

3. Attach the electrical center cover. See [Fig. 1](#).
4. Connect the batteries and remove the chocks from the tires.



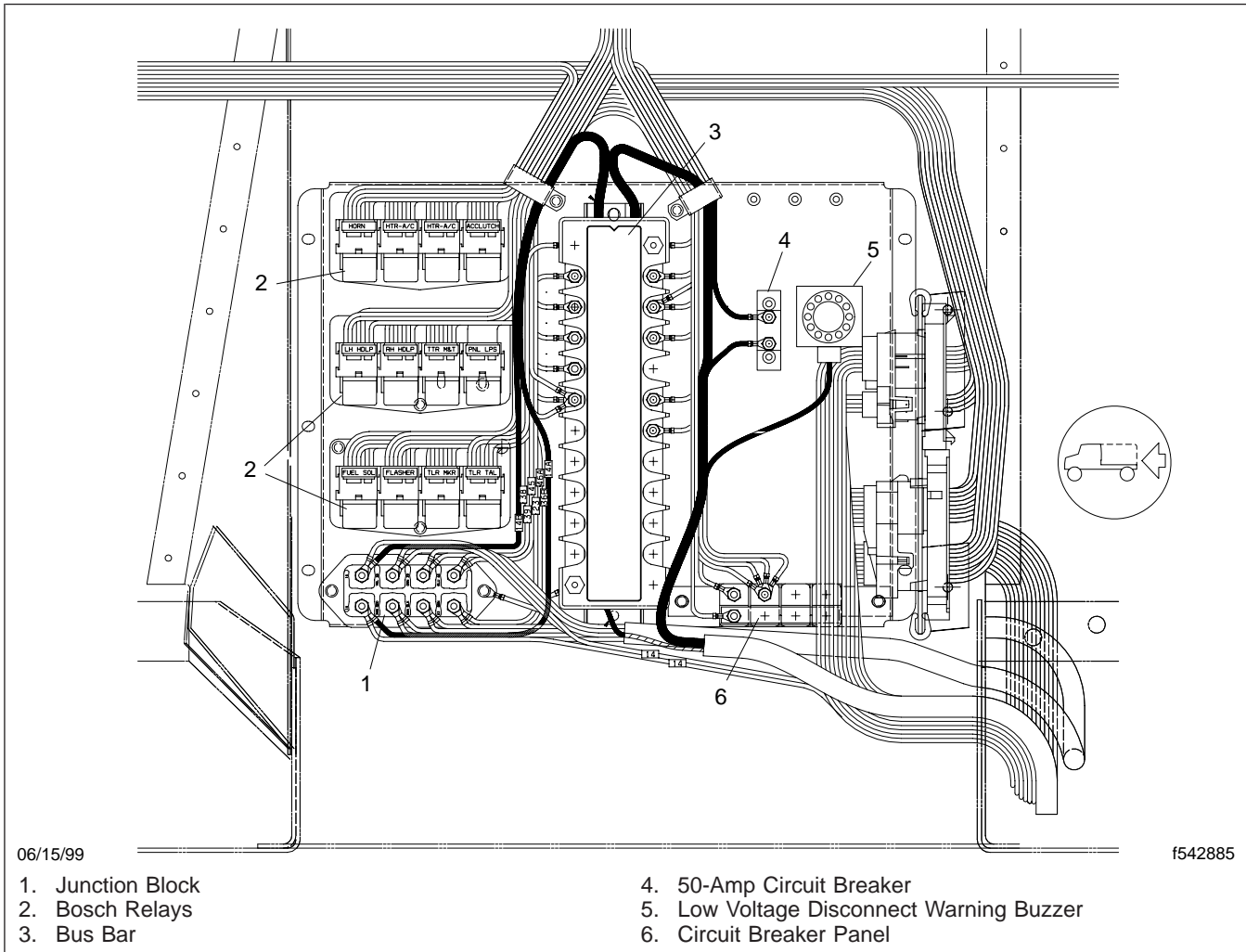
**Fig. 1, Dash Panel**

4. Remove from the circuit breaker/relay panel the two mounting fasteners that hold the low voltage disconnect warning buzzer, and remove the buzzer. The buzzer can be mounted anywhere on the panel. See [Fig. 2](#).
5. Remove the electrical connector from the low voltage disconnect warning buzzer.

### Installation

1. Attach the electrical connector to the low voltage disconnect warning buzzer.
2. Install the warning buzzer in the space available on the circuit breaker/relay panel, using two stan-

### Low Voltage Disconnect Warning Buzzer Removal and Installation



**Fig. 2, Circuit Breaker Relay Panel**