

PRODEMAND

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POWER DISTRIBUTION

2008 Dodge Dakota 3.7L Eng

IOD FUSE

DESCRIPTION

All vehicles are equipped with an Ignition-Off Draw (IOD) fuse that is disconnected within the Integrated Power Module when the vehicle is shipped from the factory. Dealer personnel are to reconnect the IOD fuse in the Integrated Power Module as part of the preparation procedures performed just prior to new vehicle delivery. The IOD fuse can be removed to avoid discharging the battery by disconnecting non-essential, low-current memory functions that are normally on at all times. A detent on the IOD fuse holder allows it to be stored in its normal cavity but out of contact. The holder is pushed into place to restore power to the systems it supplies. The following circuits are protected by the IOD fuse:

Cluster (CCN)

Diagnostic Connector

Map Lamps

Glove Box Lamp

Courtesy Lamps

Radio

Underhood Lamp

OPERATION

The term ignition-off draw identifies a normal condition where power is being drained from the battery with the ignition switch in the Off position. The IOD fuse feeds the memory and sleep mode functions for some of the electronic modules in the vehicle as well as various other accessories that require battery current when the ignition switch is in the Off position. The only reason the IOD fuse is disconnected is to reduce the normal IOD of the vehicle electrical system during new vehicle transportation and pre-delivery storage to reduce battery depletion, while still allowing vehicle operation so that the vehicle can be loaded, unloaded and moved as needed.

The IOD fuse is disconnected from Integrated Power Module when the vehicle is shipped from the assembly plant. Dealer personnel must reconnect the IOD fuse when the vehicle is being prepared for delivery in order to restore full electrical system operation. Once the vehicle is prepared for delivery, the IOD function of this fuse becomes transparent and the fuse that has been assigned the IOD designation becomes another Fused B(+) circuit fuse.

The IOD fuse can be used by the vehicle owner as a convenient means of reducing battery depletion when a vehicle is to be stored for periods not to exceed about thirty days. However, it must be remembered that disconnecting the IOD fuse will not eliminate IOD, but only reduce this normal condition. If a vehicle will be stored for more than about thirty days, the battery negative cable should be disconnected to eliminate normal IOD; and, the battery should be tested and

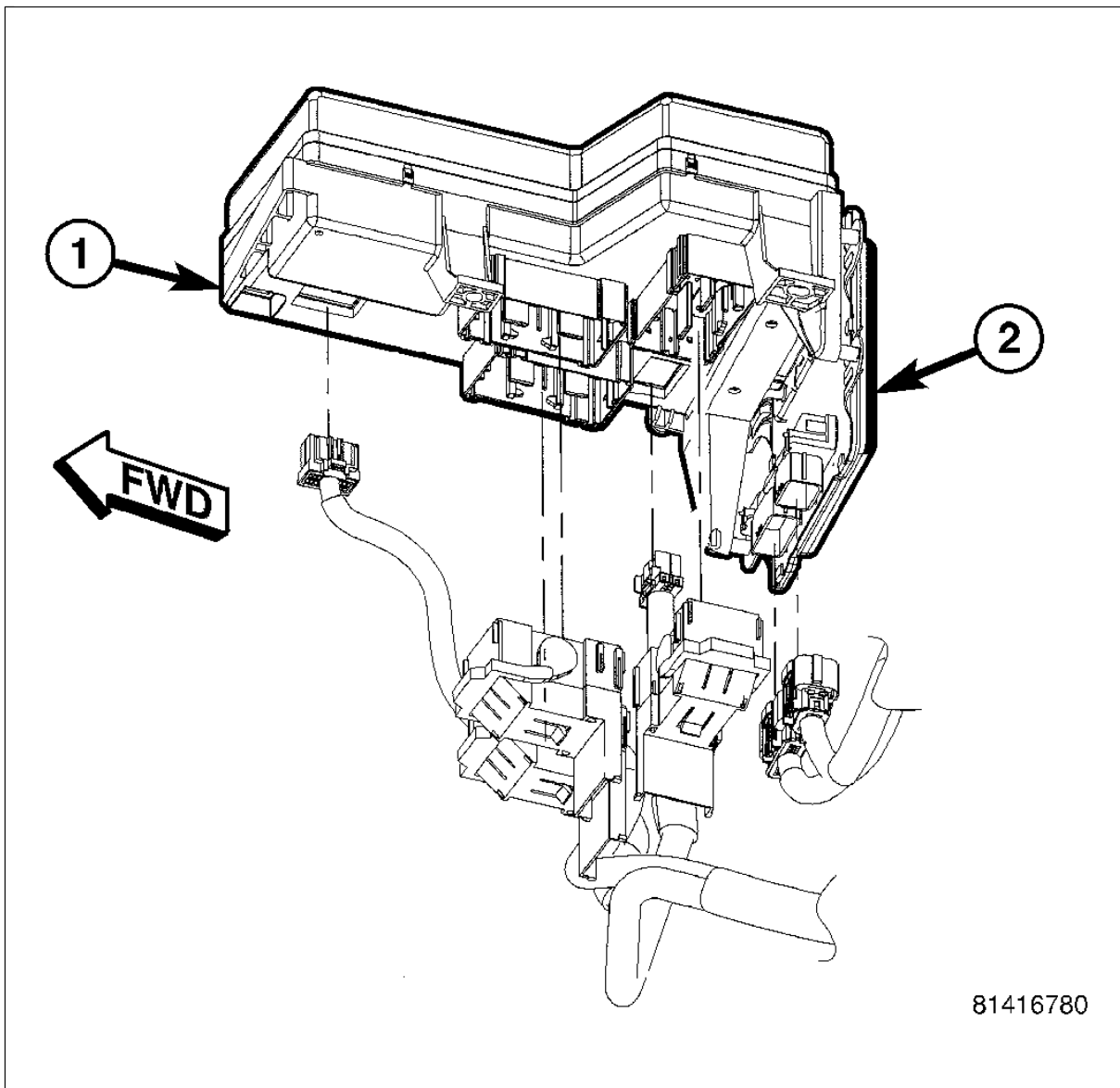
recharged at regular intervals during the vehicle storage period to prevent the battery from becoming discharged or damaged.

MODULE-INTEGRATED POWER

DESCRIPTION

INTEGRATED POWER MODULE

Fig 1: Locating Power Distribution Center & Front Control Module (IPM)

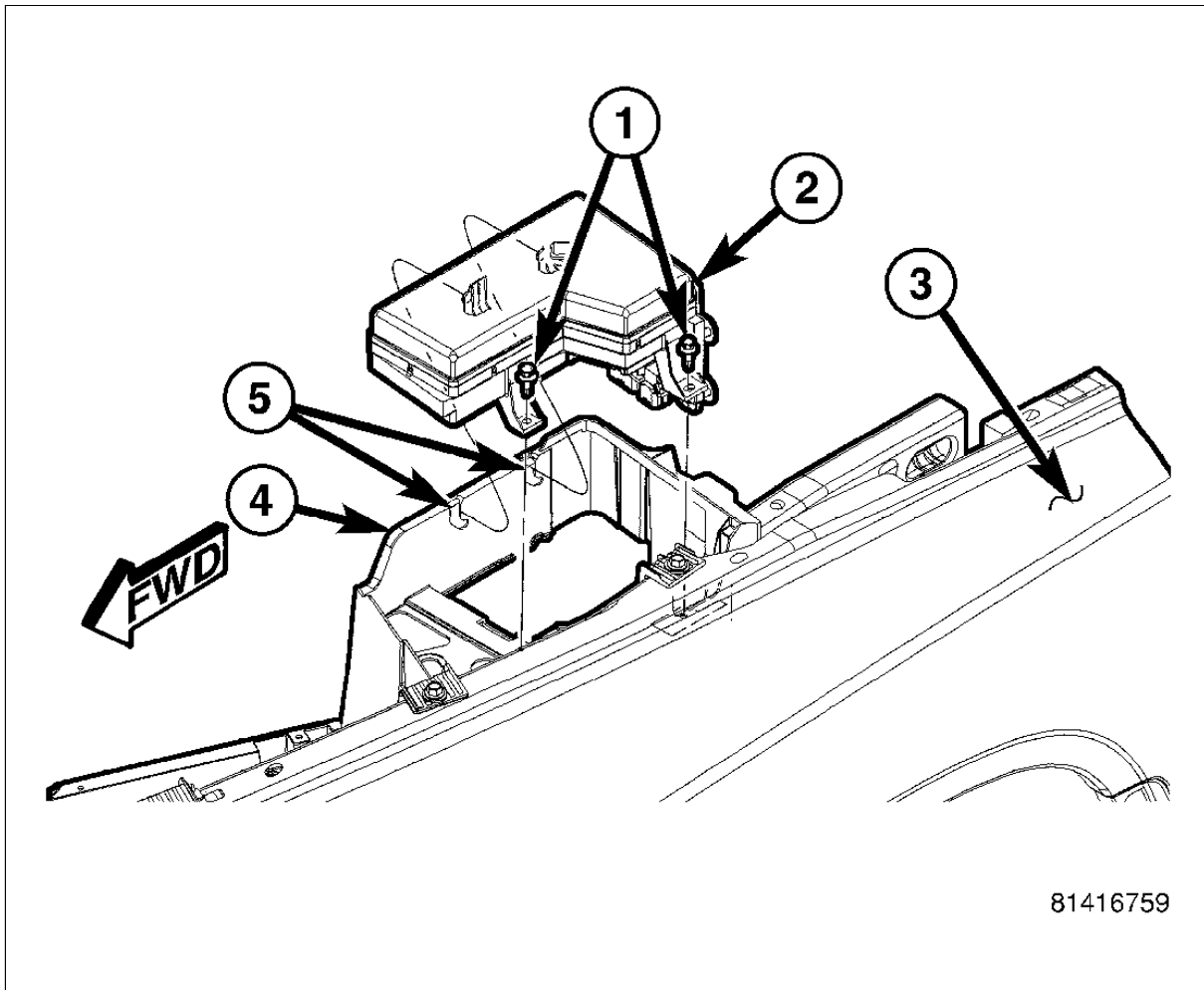


Courtesy of CHRYSLER LLC

The Integrated Power Module (IPM) is a combination of the Power Distribution Center (PDC) (1) and the Front Control Module (FCM) (2). The PDC mates directly with the FCM to form the IPM. The PDC is a printed circuit board based module that contains fuses and relays, while the FCM contains the electronics controlling the IPM and other functions. The IPM connects directly to the

battery positive via a stud located on top of the unit. The ground connection is via electrical connectors. The IPM provides the primary means of voltage distribution and protection for the entire vehicle.

Fig 2: Identifying Pushpin Fasteners, IPM, Battery Tray & Locating Slots



Courtesy of CHRYSLER LLC

The IPM (2) is located in the engine compartment, next to the battery. It is secured to the battery tray (4) with two locating slots (5) and two pushpin style fasteners (1). The PDC portion of the IPM cannot be repaired and must be replaced if inoperative or damaged, see REMOVAL .

OPERATION

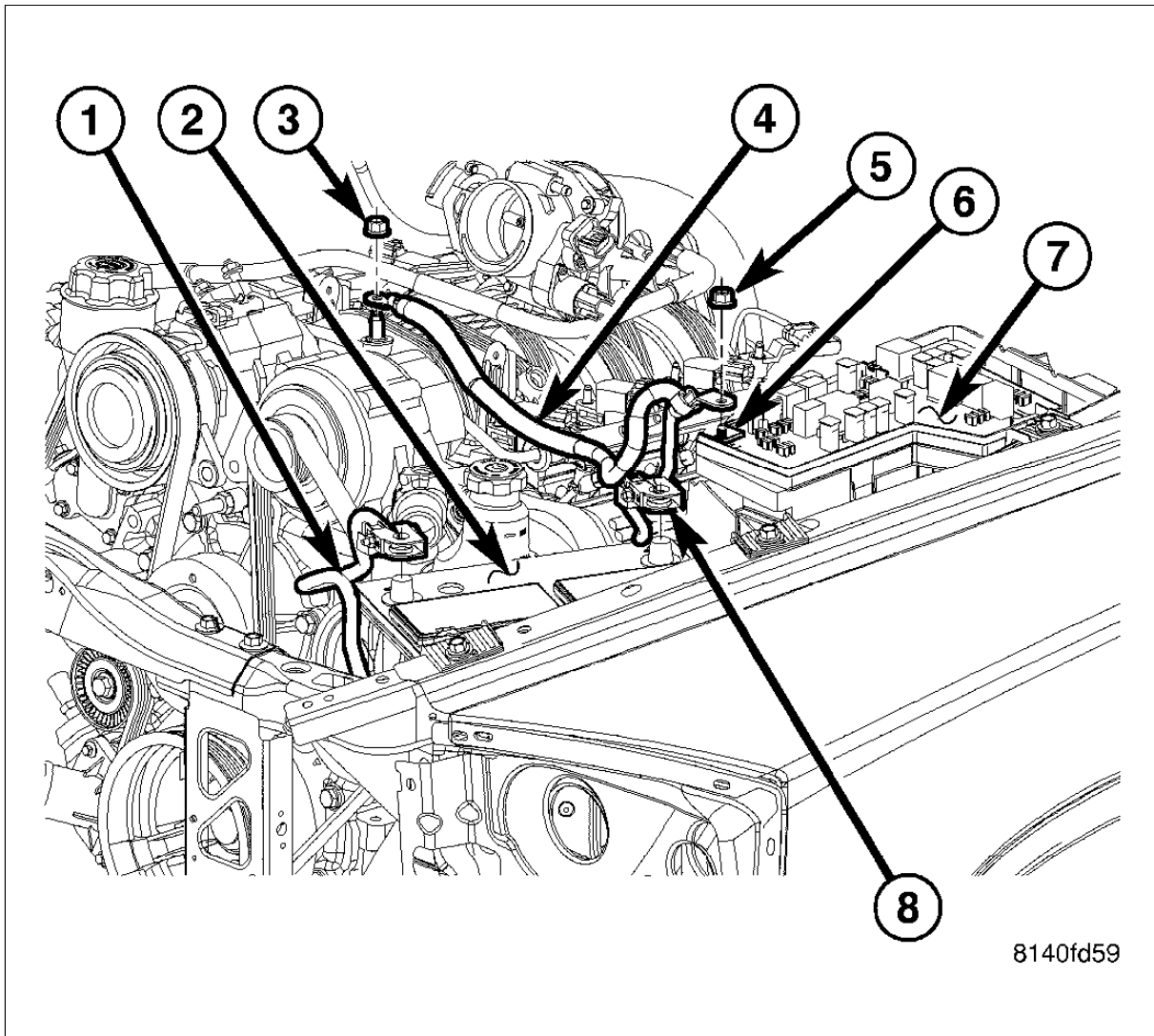
INTEGRATED POWER MODULE

All of the current from the battery and the generator output enters the integrated power module via a stud on the top of the module. Internal connections of all of the power distribution center circuits is accomplished by a combination of BUS bars and a printed circuit board.

REMOVAL

INTEGRATED POWER MODULE

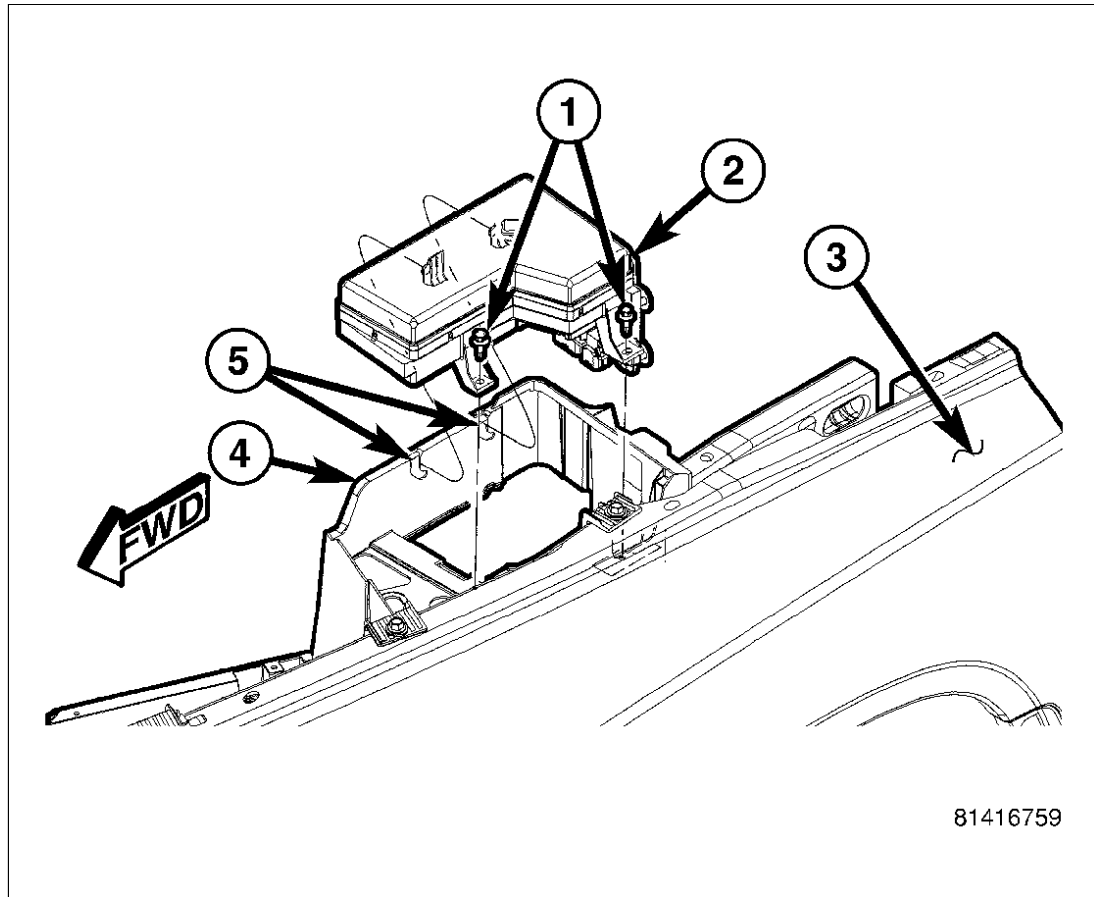
Fig 3: Removing/Installing Positive Cable At IPM & Alternator



Courtesy of CHRYSLER LLC

1. Disconnect the battery negative cable.
2. Remove the Integrated Power Module (IPM) cover and remove the nut (5) from the IPM B+ terminal stud (6).
3. Remove the battery positive cable (4).

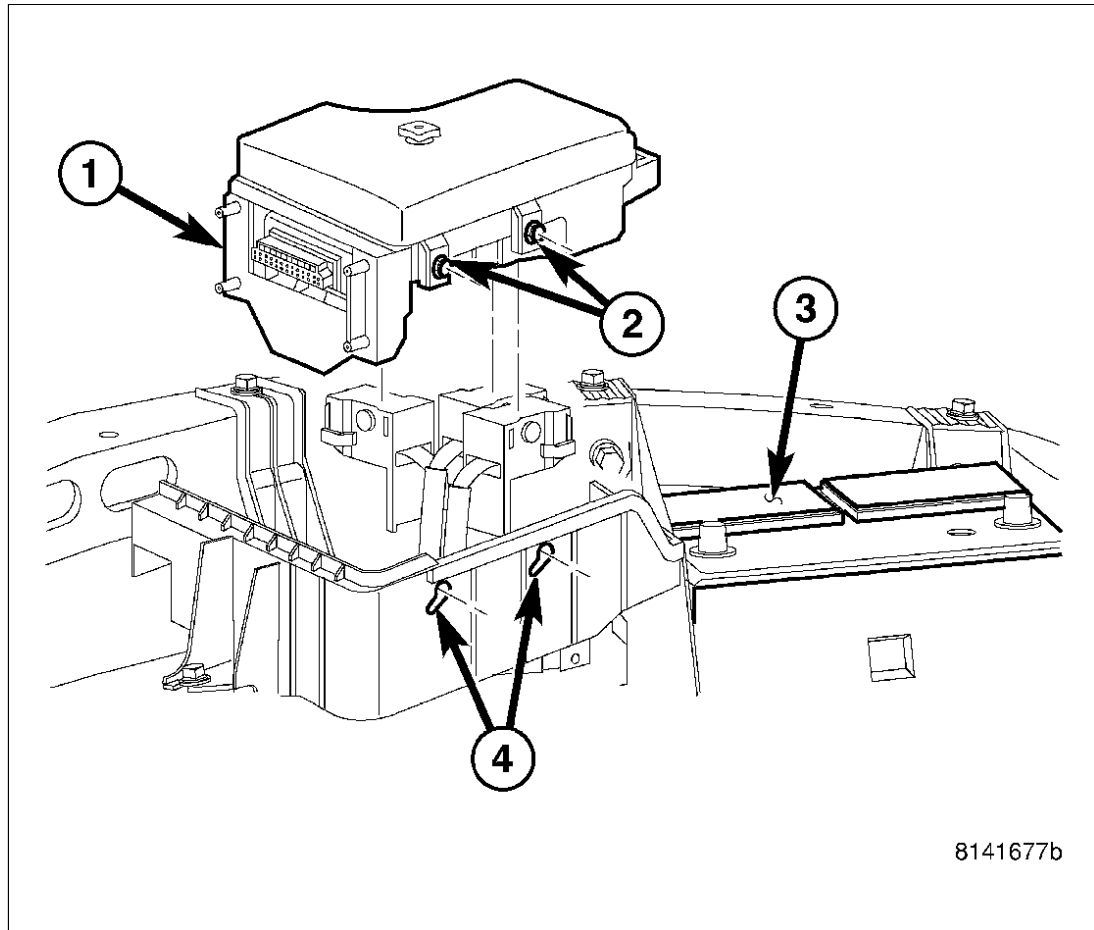
Fig 4: Identifying Pushpin Fasteners, IPM, Battery Tray & Locating Slots



Courtesy of CHRYSLER LLC

4. Remove the IPM (2) pushpin fasteners (1) from the battery tray (4).

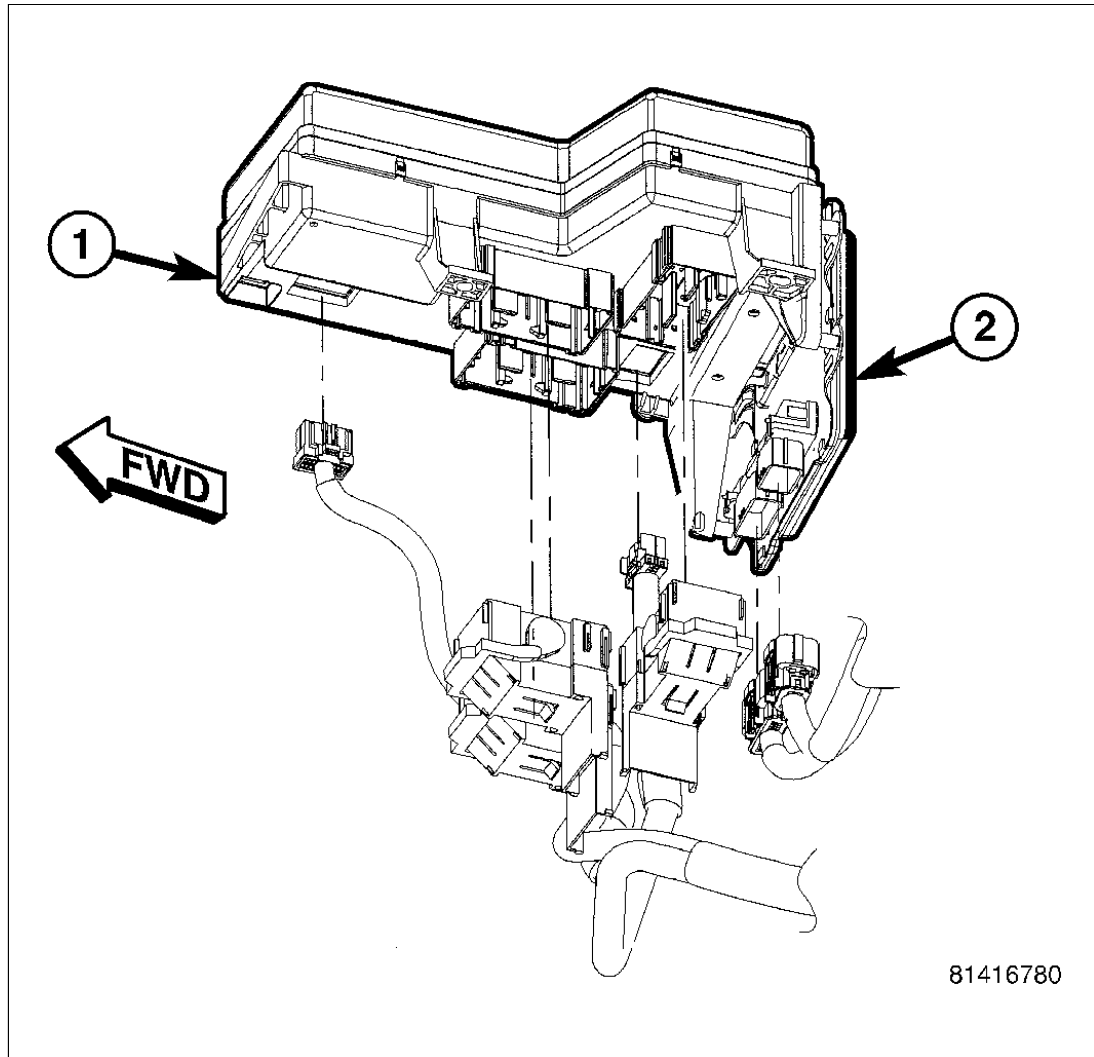
Fig 5: Identifying IPM, Locking Tabs & Battery Tray Locating Slots



Courtesy of CHRYSLER LLC

5. Move the IPM (1) forward and up to disengage the locking tabs (2) from the battery tray locating slots (4).

Fig 6: Locating Power Distribution Center & Front Control Module (IPM)



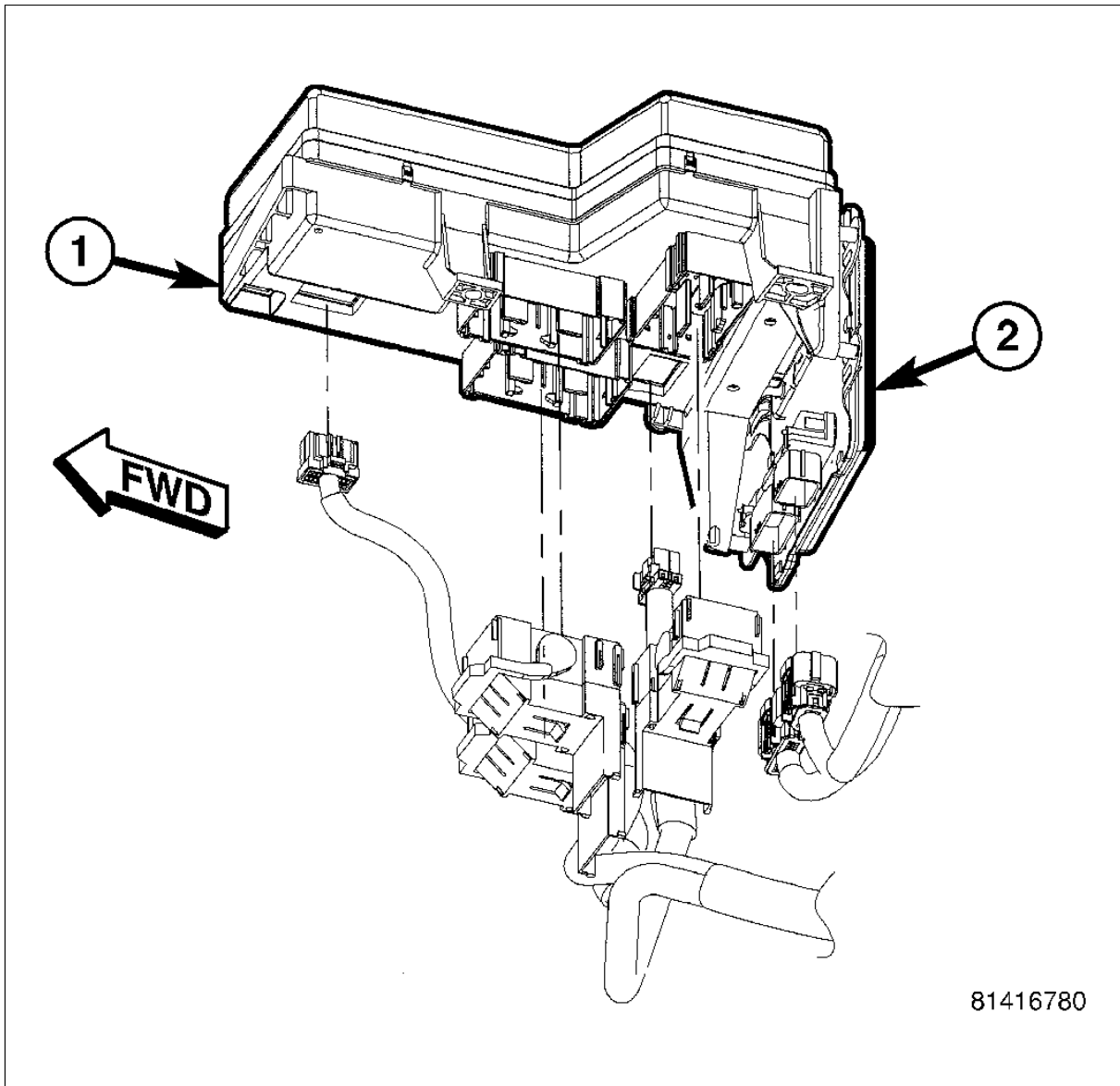
Courtesy of CHRYSLER LLC

6. Lift the IPM up to access and disconnect the wiring harness connectors from the Power Distribution Center (1) and Front Control Module (2).
7. Remove the IPM assembly from the vehicle.

INSTALLATION

INTEGRATED POWER MODULE

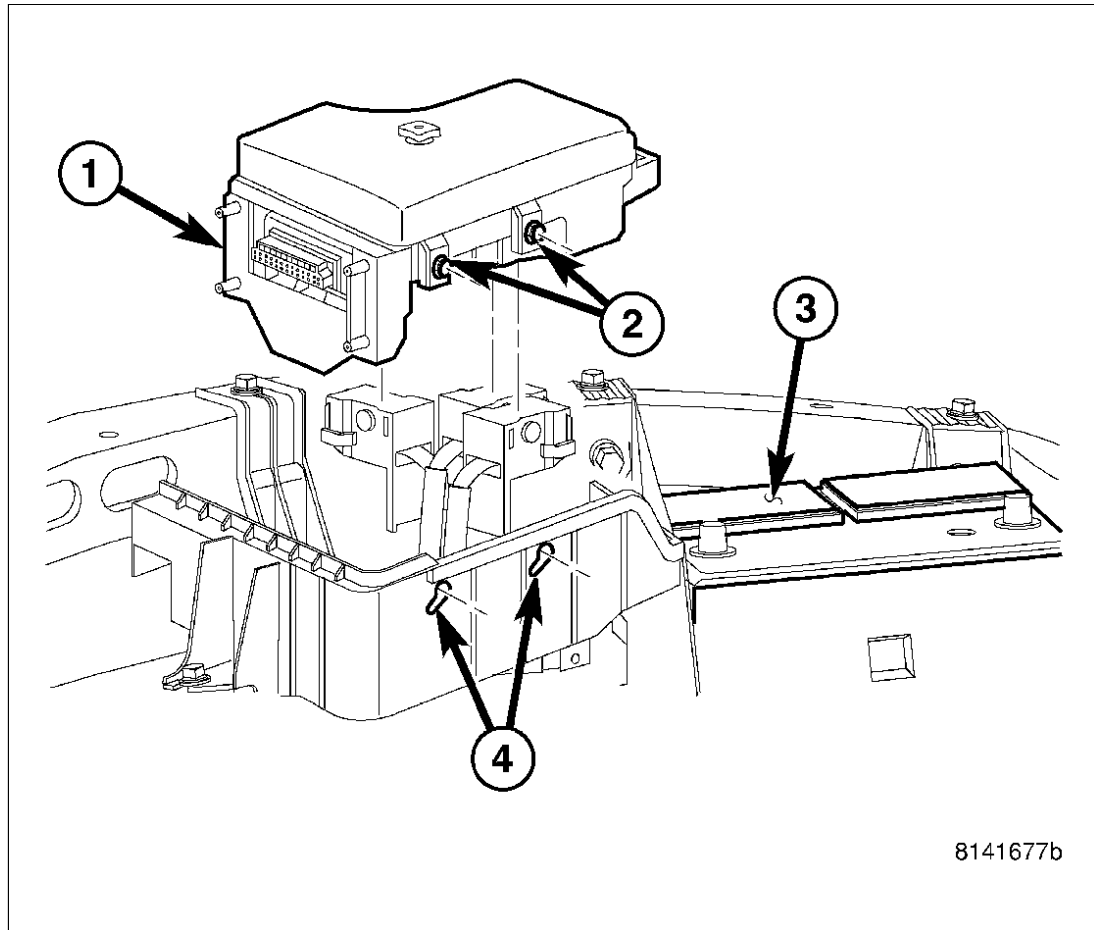
Fig 7: Locating Power Distribution Center & Front Control Module (IPM)



Courtesy of CHRYSLER LLC

1. Connect the wiring harness connectors to the Power Distribution Center (1) and the Front Control Module (2).

Fig 8: Identifying IPM, Locking Tabs & Battery Tray Locating Slots

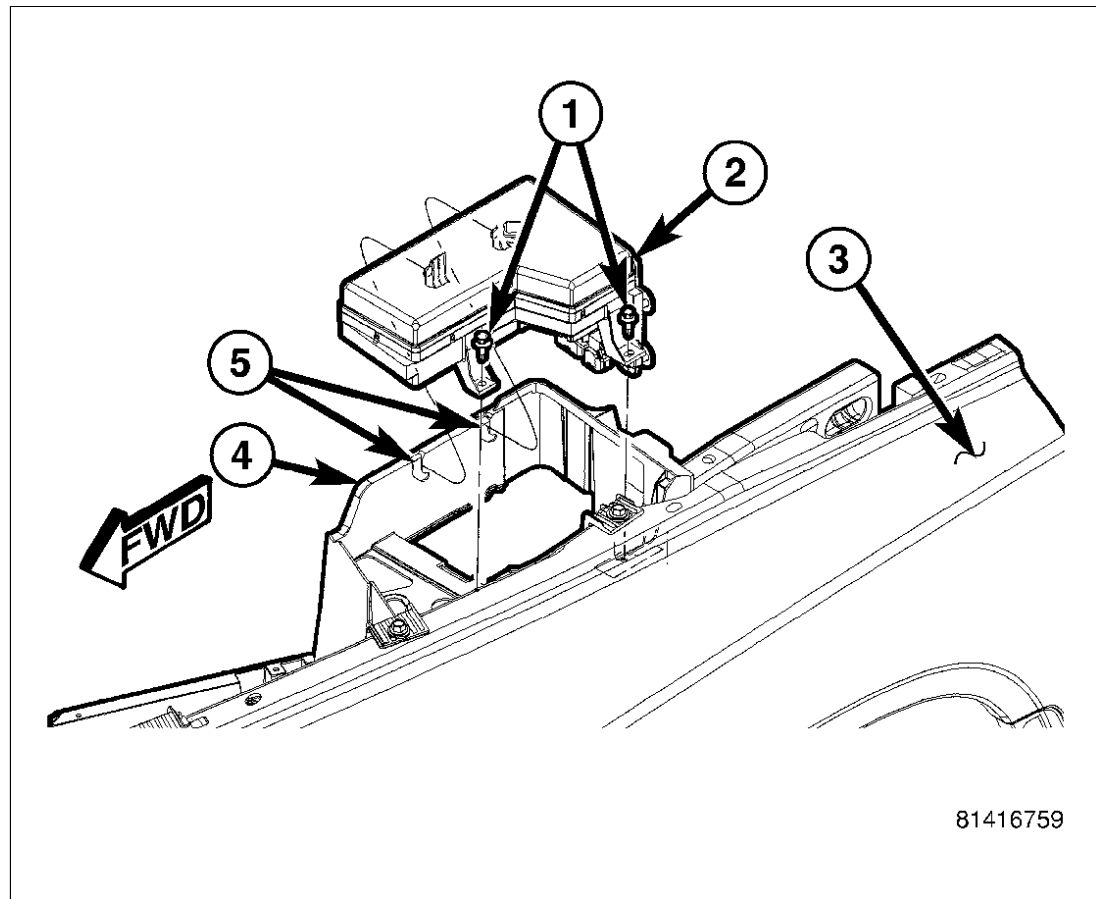


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Courtesy of CHRYSLER LLC

2. Position the Integrated Power Module (IPM) (1) into the battery tray. Move the IPM down and rearward to engage the locking tabs (2) into the battery tray locating slots (4).

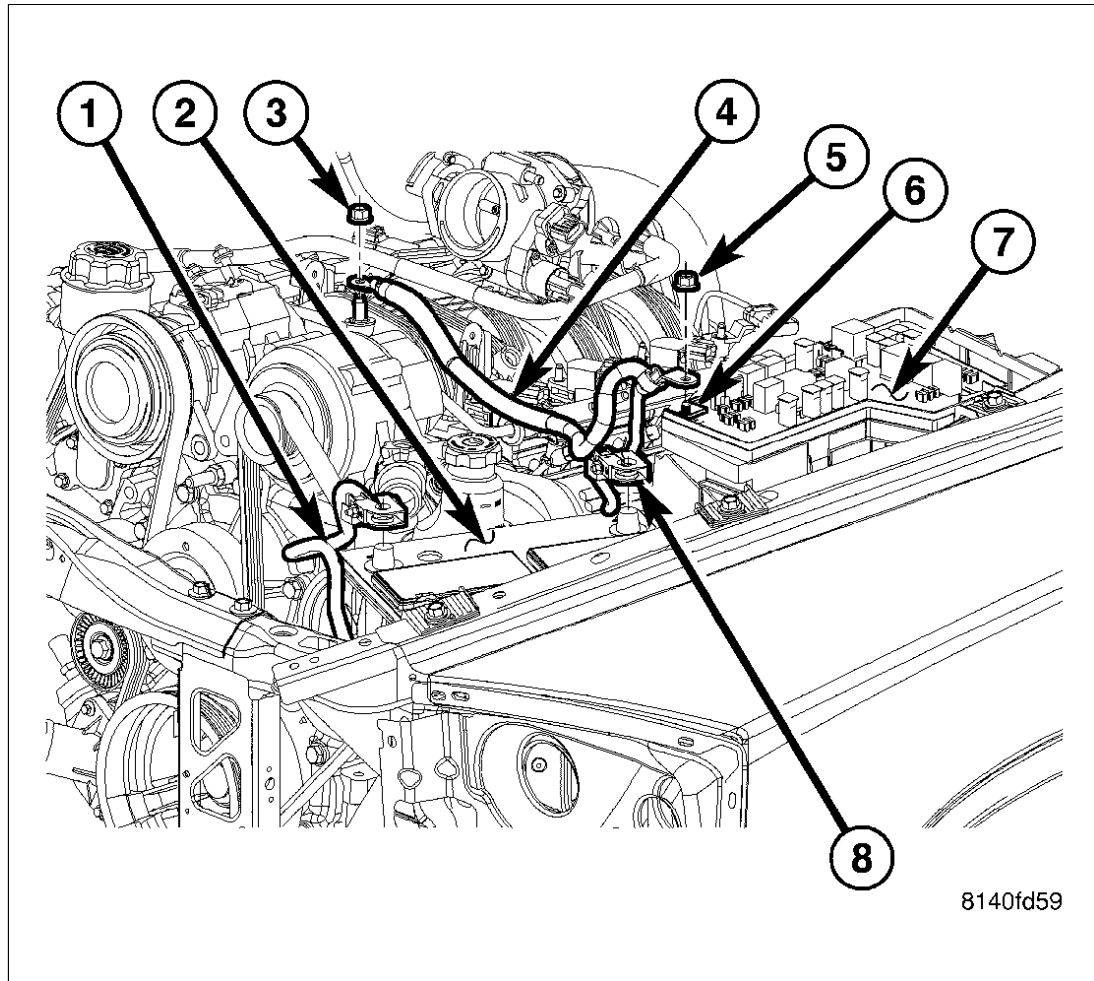
Fig 9: Identifying Pushpin Fasteners, IPM, Battery Tray & Locating Slots



Courtesy of CHRYSLER LLC

3. Install the IPM (2) pushpin fasteners (1) into the battery tray (4).

Fig 10: Removing/Installing Positive Cable At IPM & Alternator



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Courtesy of CHRYSLER LLC

4. Position the battery positive cable (4) and install the nut (5) onto the IPM B+ terminal stud (6). Install the IPM cover.
5. Connect the battery negative cable.
6. Confirm proper vehicle operation.