

2009 ACCESSORIES AND EQUIPMENT**Power Distribution - Journey****OPERATION****OPERATION**

The power distribution system for this vehicle is designed to provide safe, reliable, centralized and convenient access to distribution of the electrical current required to operate all of the many standard and optional factory-installed electrical and electronic powertrain, chassis, safety, comfort and convenience systems. At the same time, these systems were designed to provide centralized locations for conducting diagnosis of faulty circuits and for sourcing the additional current requirements of many aftermarket vehicle accessory and convenience items.

These power distribution systems also incorporate various types of circuit control and protection features, including:

- Automatic resetting circuit breakers
- Cartridge fuses
- Fusible links
- Mini and standard fuses
- Relays

The power distribution system for this vehicle may consist of the following components:

- Accessory power outlet
- Junction Block (JB)
- Power Distribution Center (PDC)
- Totally Integrated Power Module (TIPM)

SPECIAL TOOLS**SPECIAL TOOLS**

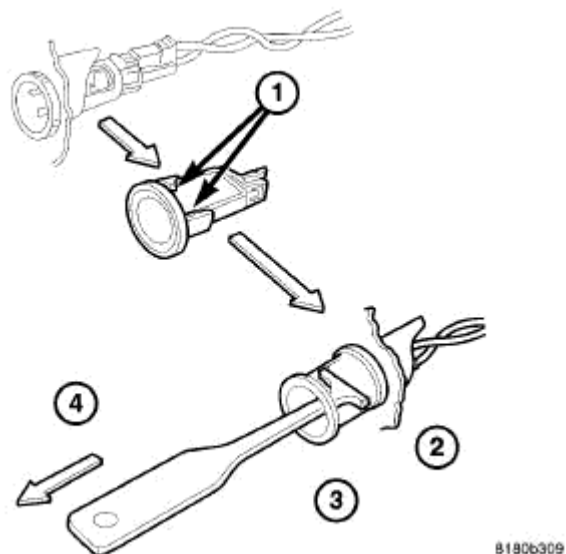


Fig. 1: 9857 Power Outlet Remover
Courtesy of CHRYSLER LLC

1. RETAINING TABS	3. POWER OUTLET
2. ELECTRICAL CONNECTOR	4. POWER OUTLET REMOVER

FUSE, IOD

DESCRIPTION

DESCRIPTION

All vehicles are equipped with an Ignition-Off Draw (IOD) fuse that is disconnected within the Totally Integrated Power Module (TIPM) when the vehicle is shipped from the factory. Dealer personnel are to reconnect the IOD fuse in the TIPM as part of the preparation procedures performed just prior to new vehicle delivery.

OPERATION

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, including the clock. 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 by both vehicle transportation company and dealer personnel.

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 only another Fused B(+) circuit fuse. The IOD fuse serves no useful purpose to the dealer technician in the service or diagnosis of any vehicle system or condition, other than the same purpose as that of any other standard circuit protection device.

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.

REMOVAL

REMOVAL

NOTE: When removing or installing the Ignition Off Draw (IOD) fuse, it is important that the ignition switch be in the OFF position. Failure to place the ignition switch in the OFF position can cause the radio display to become scrambled when the IOD fuse is installed. Removing and installing the IOD fuse again with the ignition switch in the OFF position will usually correct the scrambled radio display condition.

1. Turn the ignition switch to the OFF position.
2. Remove the cover from the Totally Integrated Power Module (TIPM).
3. Pull on IOD fuse (J13) holder until it reaches the first detent.

INSTALLATION

INSTALLATION

1. Push on IOD fuse until completely seated.
2. Install the cover to the Totally Integrated Power Module (TIPM).

JUNCTION BLOCK

DESCRIPTION

DESCRIPTION

An electrical Junction Block (JB) is located next to the Totally Integrated Power Module (TIPM). The JB combines the functions previously provided by a separate relay center. It also serves to simplify and centralize numerous electrical components, as well as to distribute electrical current to many of the accessory systems in the vehicle. It eliminates the need for numerous splice connections and serves in place of a bulkhead connector between many of the engine compartment, instrument panel, and body wire harnesses. The junction block is replaced as part of the engine harness.

MODULE, POWER INVERTER

DIAGNOSIS AND TESTING

INVERTER MODULE

For complete circuit diagrams, refer to the appropriate wiring information.

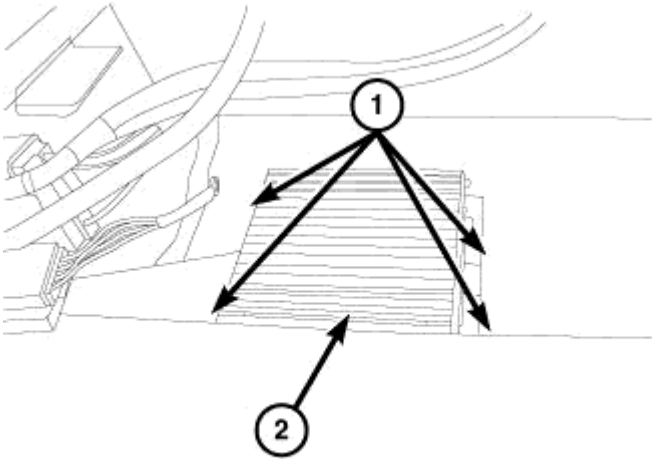
WARNING: Disable the airbag system before attempting any steering wheel, steering column, seat belt tensioner, side airbag or instrument panel component diagnosis or service. Disconnect and isolate the negative battery (ground) cable. Wait two minutes for the airbag system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the airbag system. Failure to follow these instructions may result in accidental airbag deployment and possible serious or fatal injury.

110 VOLT POWER OUTLET DIAGNOSIS

CONDITION	POSSIBLE CAUSES	CORRECTION
NO POWER AT THE 110 VOLT POWER OUTLET	1. Fuse inoperative.	1. Check Totally Integrated Power Module (TIPM) fuse number 37. Replace fuse, if required.
	2. Power outlet connector damaged.	2. Check for loose or corroded power outlet connector. Repair, if required.
	3. Inverter module connector damaged.	3. Check for loose or corroded inverter module connector. Repair, if required.
	4. Wiring damaged.	4. Check for shorted or open wires. Repair wiring, if required.
	5. Inverter module ground damaged.	5. Check for continuity between the inverter module and a known good ground. There should be continuity. Repair ground, if required.
	6. Power outlet inoperative.	6. Replace the power outlet.
	7. Inverter module inoperative.	7. Replace the inverter module.

REMOVAL

REMOVAL



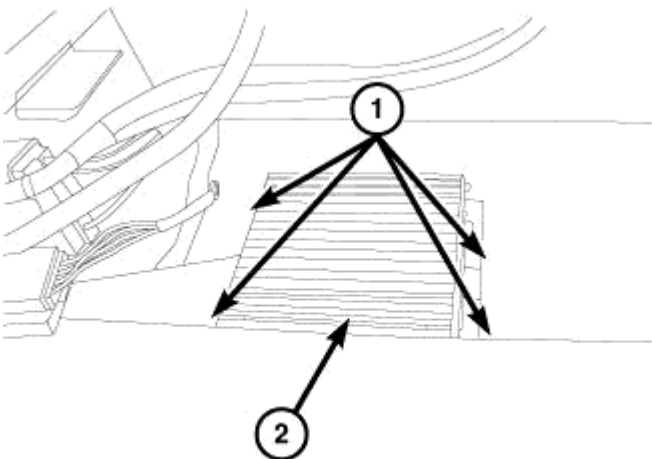
2442051

Fig. 2: Removing / Installing Power Inverter And Mounting Retainers
Courtesy of CHRYSLER LLC

1. Disconnect and isolate the battery negative cable.
2. Position the front drivers seat to the full rearward position.
3. Remove the power inverter (2) mounting retainers (1) located under the carpet.
4. Disconnect the electrical connectors.
5. Remove the power inverter module from the vehicle.

INSTALLATION

INSTALLATION



2442051

Fig. 3: Removing / Installing Power Inverter And Mounting Retainers
Courtesy of CHRYSLER LLC

1. Position the inverter into the vehicle and install mounting fasteners.
2. Connect the electrical connectors.
3. Connect the battery negative cable.
4. Position the front drivers seat back to the original position.

MODULE, TOTALLY INTEGRATED POWER (TIPM)

DESCRIPTION

DESCRIPTION

All of the electrical current distributed throughout this vehicle is directed through the standard equipment Totally Integrated Power Module (TIPM). The molded plastic TIPM housing is located on the right side of the engine compartment. The TIPM housing has a molded plastic cover. The TIPM cover is easily removed for service access and has a convenient fuse layout label affixed to the inside surface of the cover to ensure proper component identification.

The TIPM housing is secured to the TIPM mounting bracket by four clips integral to the TIPM housing. All of the TIPM outputs are through the integral engine compartment wire harness.

OPERATION

OPERATION

All of the current to the Totally Integrated Power Module (TIPM) comes directly from the positive battery cable to a stud located on the bottom of the TIPM. The cable is secured to the TIPM stud with a nut. Internal connection of all the TIPM circuits is accomplished by an intricate network of hard wiring and bus bars. Refer to appropriate wiring information for complete circuit diagrams.

The fuses, relays and TIPM housing assembly are available for service replacement.

STANDARD PROCEDURE

PROGRAMMING

1. Install a battery charger.
2. Verify that the charging rate provides approximately 13.5 volts.

NOTE: **Do not allow the charger to time out during the reconfiguration process. Set the battery charger timer (if so equipped) to continuous charge.**

3. Connect the CH9410 StarSCAN ethernet cable to the StarSCAN and the dealer's network drop.
4. Connect the CH9404 StarSCAN vehicle cable to the StarSCAN and the vehicle.
5. Place the Ignition in the "RUN" position, then Power "ON" the StarSCAN.

6. Select "ECU View".
7. Select "TIPMCGW" or "FCMCGW".
8. Select "MISC".
9. Select "Restore Vehicle Configuration".
10. Follow prompts on StarSCAN to complete the reconfigure procedure.
11. Once complete, Wait one minute and turn the ignition key to the "OFF" position.
12. Remove the StarSCAN unit, cable and charger from the vehicle.
13. Verify proper operation.

REMOVAL

REMOVAL

1. Open hood.
2. Disconnect and isolate the battery negative cable.
3. Release the Totally Integrated Power Module (TIPM) cover retaining clips and open the TIPM cover.
4. Remove the TIPM positive cable retaining nut and remove the cable from the stud.
5. Depress the four mounting clips to disengage and remove the TIPM housing from its mounting bracket.
6. Disconnect each of the seven TIPM wire harness connectors.
7. Remove the TIPM from the vehicle.

INSTALLATION

INSTALLATION

CAUTION: The original Cabin Compartment Node (CCN) and Powertrain Control Module (PCM) must be installed and functioning properly prior to powering up the new Totally Integrated Power Module (TIPM). The TIPM receives vehicle configuration data from the CCN and Vehicle Identification Number (VIN) information from the PCM. If configuration information becomes lost or corrupted, the data can be obtained from DealerCONNECT

1. Position the TIPM into the engine compartment.
2. Connect each of the seven TIPM wire harness connectors.
3. Position the TIPM onto the mounting bracket and push down until the mounting clips are fully seated.
4. Position the TIPM positive cable onto the mounting stud and install the retaining nut. Tighten the nut to 9 - 11 N.m (80 - 100 in. lbs.).
5. Open the TIPM cover and fully seat the airbag fuse holder (two fuses in one yellow carrier) and the Ignition Off Draw (IOD) fuse.
6. Connect the battery negative cable.
7. Close the hood.

8. Insert the ignition key and turn it to the RUN position and wait twelve seconds. The TIPM will collect the necessary vehicle configuration and VIN data from the CCN and PCM at this time. After twelve seconds turn the ignition key to the OFF position and then back to the ON position and verify proper vehicle systems operation.

OUTLET, POWER, 12 V

REMOVAL

REMOVAL

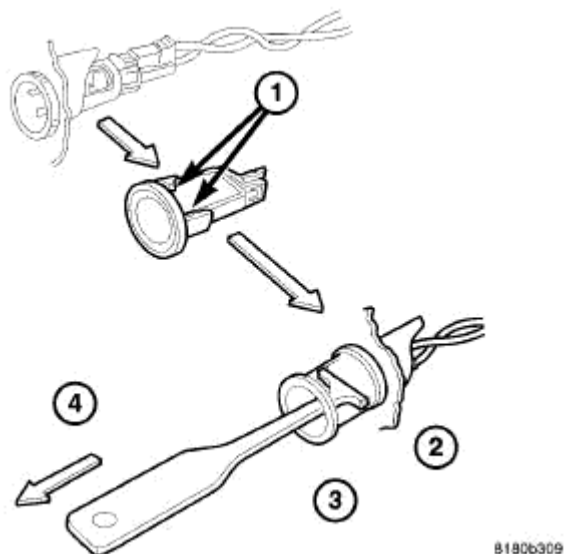


Fig. 4: Removing Cigar Lighter/Power Outlet

Courtesy of CHRYSLER LLC

1. Disconnect and isolate the battery negative cable.
2. Using Power Outlet Remover 9857 (4). Insert the tool with tips against bosses (1).
3. Pull out the base (3) through mounting ring by gently rocking power outlet remover.
4. Disconnect the base wires (2).

INSTALLATION

INSTALLATION

1. Connect wire harness connectors.
2. Install power outlet to instrument panel.
3. Connect battery negative cable.