



DODGE

2009 **Aspen/Durango**

OWNER'S MANUAL

Hybrid Supplement

VEHICLES SOLD IN CANADA

With respect to any Vehicles Sold in Canada, the name Chrysler LLC shall be deemed to be deleted and the name Chrysler Canada Inc. used in substitution therefor.

DRIVING AND ALCOHOL

Drunken driving is one of the most frequent causes of accidents.

Your driving ability can be seriously impaired with blood alcohol levels far below the legal minimum. If you are drinking, don't drive. Ride with a designated non-drinking driver, call a cab, a friend, or use public transportation.

WARNING!

Driving after drinking can lead to an accident. Your perceptions are less sharp, your reflexes are slower, and your judgment is impaired when you have been drinking. Never drink and then drive.

This manual illustrates and describes the operation of features and equipment that are either standard or optional on this vehicle. This manual may also include a description of features and equipment that are no longer available or were not ordered on this vehicle. Please disregard any features and equipment described in this manual that are not on this vehicle.

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INTRODUCTION

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INTRODUCTION

This booklet is a supplement to the Owner's Manuals. This manual was prepared with the assistance of service and engineering specialists and is intended to aid the operators of Hybrid vehicles in understanding the operation and required maintenance procedures for such vehicles. This supplement applies to Hybrid vehicles only. You are urged to read this Owner's Manual carefully.

Following the instructions and recommendations provided herein will help assure safe and reliable operation of your vehicle. After you have read the Owners Manual, it should be stored in the vehicle for convenient reference and remain with the vehicle when sold.

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THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

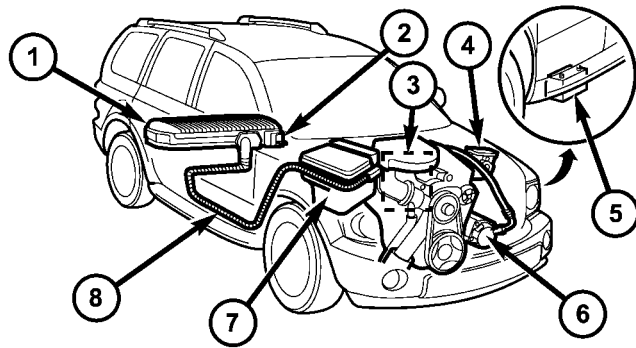
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IMPORTANT HYBRID SYSTEM INFORMATION

Before operating your new Hybrid vehicle, be sure to read the following information.

Hybrid System Components



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- 1 - High Voltage Battery (located under the second row seat)
- 2 - High Voltage Battery Service Disconnect
- 3 - AHS-T HEV Automatic Transmission
- 4 - Electric Power Steering Pump location (12 Volt)
- 5 - 12 Volt Battery (located under drivers side running board)
- 6 - Electric A/C Compressor location
- 7 - Traction Power Inverter Module (TPIM)
- 8 - High Voltage Cables

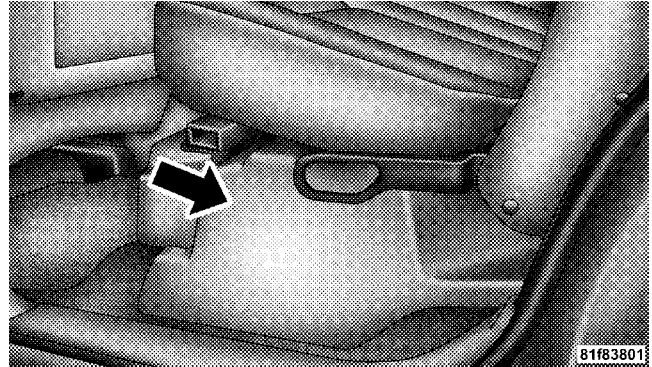
WARNING!

Your vehicle has both a high voltage DC and AC system as well as a 12 Volt system. DC and AC high voltage are both extremely dangerous and can cause severe burns, electric shock, serious injury or even death.

- In order to avoid personal injuries, DO NOT TOUCH THE HIGH VOLTAGE CABLES (ORANGE COLORED) AND THEIR CONNECTORS.
- Do not drill or probe the HIGH VOLTAGE CABLES (ORANGE COLORED).
- Follow all Caution and Warning Labels attached to the high voltage (Hybrid System) components.
- Do not remove or replace any of the Hybrid System components. All replacement or repairs of Hybrid System components should be performed at an authorized dealer.

High Voltage Battery

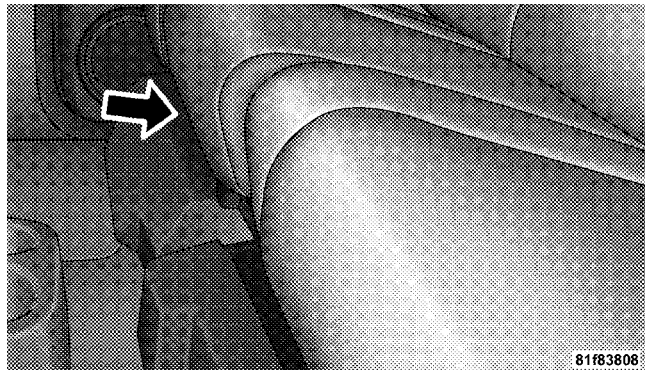
Your Hybrid vehicle is equipped with a Nickel Metal-Hydride (NiMH) battery rated at approximately 300 Volts. The high voltage battery is located under the second row seat.



High Voltage Battery Location

8 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

The battery has an internal electric fan and an interior air inlet to keep the battery cool.



Air Inlet

CAUTION!

- If your vehicle is parked for a long period of time, the high voltage battery will discharge gradually. To keep the high voltage battery in good operating condition, drive the vehicle at least once every several months for at least 30 minutes or at a minimum of 10 miles (16 km). If the high voltage battery becomes fully discharged and the vehicle will not start even with “Jump-Assist” through the 12 Volt system, see your authorized dealer for necessary repair procedures.
- Be sure to keep the battery air inlet vent (located within the interior of the vehicle along the front of the second row seats) free from blockage to avoid overheating the high voltage battery. Stow all cargo, parcels, and luggage securely fastened in the rear of vehicle and not along the second row seat floor.

NOTE: If it is necessary to jump-start the vehicle. Refer to “Jump-Starting Procedures” in Section 6.

Disposal of High Voltage Battery

Your vehicle’s high voltage battery has a limited service life.

WARNING!

- **When your vehicle or high voltage battery needs to be disposed of, be sure to consult the Chrysler LLC Customer Center. Refer to “If You Need Consumer Assistance” in Section 9 of the Owners Manual.**
- **If your vehicle or high voltage battery is disposed of without properly dismantling, someone could receive an electric shock by touching the high voltage (Hybrid System) components, causing serious injury or death.**
- **If the high voltage battery is not disposed of properly, its contents can cause serious injury or even death.**

High Voltage Battery Service Disconnect

The high voltage battery service disconnect is located behind a trim panel on the driver's side second row seat. If your vehicle requires service see your authorized dealer.

WARNING!

Never try to remove the high voltage service disconnect. The high voltage service disconnect is used when your vehicle requires service by a trained technician at an authorized dealer. Removing the high voltage battery service disconnect can cause severe burns or electrical shock that may result in serious injury or death.

Jump Assist — High Voltage Battery

The “Jump Assist” procedure allows you to charge the high voltage battery using the 12 Volt battery system. If the high voltage battery's state of charge is too low and the engine will not crank, the Navigation radio will display a “Charge Insufficient” message. For additional information, refer to “Jump Assist Procedure” in Section 6 of your Owner's Manual.

In The Event Of An Accident

If your Hybrid vehicle is involved in an accident, if possible, pull the vehicle off the road to a safe location, put the shift lever in PARK and remove the ignition key.

NOTE:

- If your vehicle is involved in an accident causing the airbags to deploy, your vehicle will automatically become disabled. See your authorized dealer for necessary repair procedures.
- If your vehicle needs to be towed, always use a flat bed truck. For additional information, refer to “Towing A Disabled Vehicle” in Section 6.

WARNING!

- **In order to avoid personal injuries or death, do not touch any exposed high voltage wiring (orange colored) inside or outside of your vehicle, an electric shock may occur. NEVER TOUCH THE ELECTRIC WIRING.**
- **If fluid is leaking on the ground or leaks in some parts of the vehicle, never touch it because it may be Electrolyte (strong alkali) from the Hybrid Battery. If it gets on your skin or in your eyes, wash it off immediately with large amounts of water, and get immediate medical attention.**
- **If a vehicle fire occurs, extinguish it using a fire extinguisher that is used exclusively for electrical fires. Or use large amounts of water to prevent flammable gas from being generated from the batteries.**

12 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

UNDERSTANDING THE FEATURES OF YOUR VEHICLE

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OVERHEAD CONSOLE WITH ELECTRONIC VEHICLE INFORMATION CENTER (EVIC)

Electronic Vehicle Information Center (EVIC)



Pressing the MENU button will change the display to one of the following features:

Trip Functions

Pressing the STEP button allows you to scroll through one of the following Trip Function features:

- **TRIP** – Shows the total distance traveled since the last reset. To reset the TRIP function, press and hold the RESET button.
- **ELAPSED TIME** – Shows the total elapsed time of travel since the last reset. Elapsed time will increment when the ignition switch is in the ON/RUN or START positions.

- **UNIT IN U.S./METRIC** – Press the RESET button to toggle between U.S. and METRIC.
- **AVG. MPG** – Shows the average fuel economy since the last reset. When the fuel economy is reset, the display will show dashes for two seconds. Then the history information will be erased, and the **averaging will continue from the last fuel average reading before the reset.** (Example: If your EVIC displays 18 AVG. MPG and the RESET button is pressed, the previous averaging history will be erased and the display will return to the 18 AVG. MPG, not to 0 AVG. MPG). The display may take several miles/kilometers for the value to change, depending upon driving habits. FUEL SAVER will also be displayed along with

the actual AVG. MPG when either the Multi Displacement System (MDS) is active or the vehicle is operating in electric mode (i.e. engine stopped and propulsion enabled). Refer to “Multi Displacement System (MDS)” under “Starting and Operating” in your Owner’s Manual for further information.

- MI TO EMPTY (Distance To Empty) – Shows the estimated distance that can be traveled with the fuel remaining in the tank. This estimated distance is determined by a weighted average of fuel economy, according to the current fuel tank level. MI TO EMPTY cannot be reset through the RESET button.

NOTE: Significant changes in driving style or vehicle loading will greatly affect the actual drivable distance of the vehicle, regardless of the DTE displayed value.

- When the DTE value is less than 30 mi (48 km) estimated driving distance, the DTE display will change to a text display of “LOW FUEL.” This display

will continue until the vehicle runs out of fuel. Adding a significant amount of fuel to the vehicle will turn off the “LOW FUEL” text and a new DTE value will display.

- Global Reset – If the RESET button is pressed twice within two seconds while in any of the three resettable displays (AVG. MPG, ET (ELAPSED TIME) and TRIP), all three displays will be reset.

Personal Settings (Customer-Programmable Features)

Personal Settings allows the driver to set and recall features when the transmission is in PARK. If the transmission is not in PARK the EVIC will display NOT AVAILABLE and VEHICLE NOT IN PARK.



Press and release the MENU button until the Personal Settings displays on the EVIC.

Use the STEP button to display the additional setting:

- “HILL START ASSIST” — To make your selection, press and release the FUNCTION SELECT button until YES (Y) or NO (N) appears.

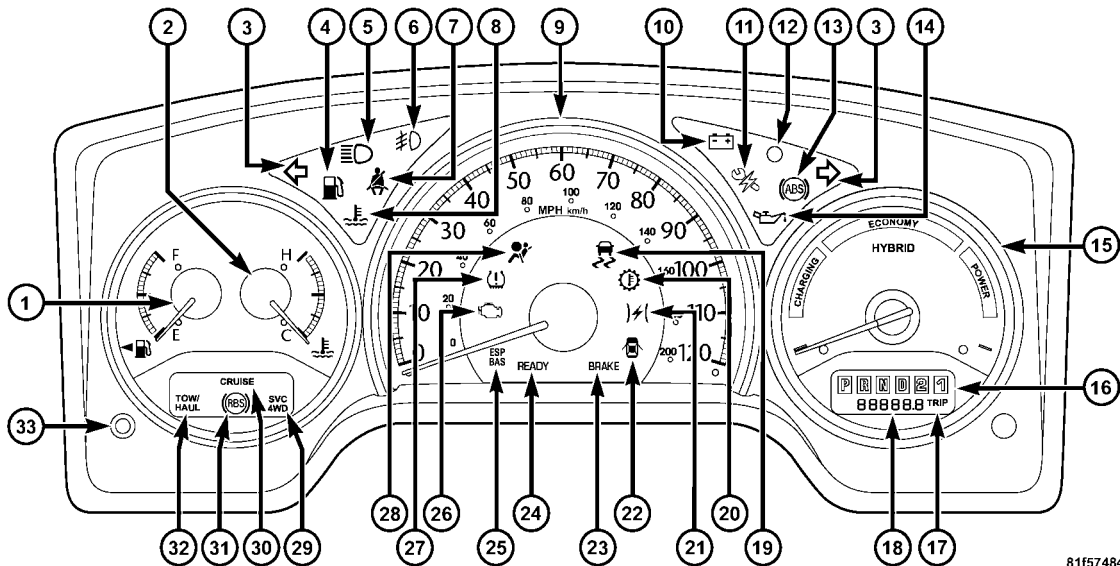
NOTE: Additional display setting descriptions are covered in your Owner’s Manual.

INSTRUMENT PANEL AND CONTROLS

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HYBRID INSTRUMENT CLUSTER



INSTRUMENT CLUSTER DESCRIPTION

1. Fuel gauge



The fuel gauge shows level of fuel in the tank when ignition switch is in the ON position.

2. Temperature gauge

The temperature gauge indicates engine coolant temperature. Any reading within the normal range indicates that the cooling system is operating satisfactorily. The gauge needle will likely indicate a high temperature when driving in hot weather, up mountain grades, in heavy traffic, or when towing a trailer. If the needle rises to the “H” mark, stop the vehicle, and shift into NEUTRAL and increase engine speed for two to three minutes. If the temperature reading does not return to normal, see your authorized dealer for service immediately.

CAUTION!

Do not leave your vehicle unattended with the engine running as you would not be able to react to the temperature indicator if the engine overheats.

The gauge pointer will remain near its last reading when the engine is turned off. It will return to a true reading when the engine is restarted.

3. Turn Signal Indicators

When a turn signal is activated, a right-pointing or left-pointing arrow lights up and flashes to indicate the direction of the turn. These indicators also indicate proper operation of the front and rear turn signal lights. If either indicator flashes at a faster rate than normal, check for a defective bulb. If either indicator fails to light up when the lever is moved, check for a defective fuse or turn signal LED. A single chime is activated when the

left/right turn signal is left on with the engine RPM vehicle speed greater than 15 mph (24 km/h) for more than 1 mi (1 km).

4. Low Fuel Warning Light



This indicator lights when the fuel gauge reads 1/16 of a tank or less.

5. High Beam Indicator



Indicates that headlights are on high beam.

6. Fog Light Indicator



This light shows when the fog lights are on.

7. Seat Belt Reminder Light



This light comes on for several seconds after the ignition is turned ON as a reminder to “buckle up.” This light will remain on as long as the seat

belt remains unbuckled. If this light flashes, it indicates a fault in the airbag system. Have the system checked by your authorized dealer.

8. Coolant Temperature Light



This light warns of an overheated engine condition. For a bulb check, this light will come on momentarily when the ignition is turned ON. If the light turns on while driving, stop the vehicle, shift into NEUTRAL and increase the engine speed for two to three minutes. If the temperature reading does not return to normal, see your authorized dealer for service immediately.

CAUTION!

Driving with a hot engine cooling system could damage your vehicle. If the temperature light is on, safely pull over and stop the vehicle. Idle the vehicle in NEUTRAL with the air conditioner turned off until the light turns off. If the light remains on, turn the engine off immediately, and call for service.

WARNING!

A hot engine cooling system is dangerous. You or others could be badly burned by steam or boiling coolant. You may want to call a service center if your vehicle overheats. If you decide to look under the hood yourself, see Section 7. Follow the warnings under the Cooling System Pressure Cap paragraph.

9. Speedometer

The speedometer shows the speed of the vehicle.

10. Voltage Light

This light monitors the 12 Volt electrical system. The light should turn on momentarily as the engine is started. If the light stays on or turns on while driving, it indicates a problem with the 12 Volt electrical system. See your authorized dealer for service immediately.

11. HEV Service Light


This light indicates that the HYBRID System requires service. See your authorized dealer.

12. Security Light

This light will flash rapidly for approximately 15 seconds when the Vehicle Security Alarm is arming. The light will flash at a slower speed continuously after the alarm is set.


The security light will also come on for about three seconds when the ignition is first turned ON.

13. ABS Warning Light

 This light monitors the Anti-Lock Brake System (ABS) which is described elsewhere in this manual. This light will come on when the ignition key is turned to the ON position and may stay on for approximately three seconds. If this light remains on or comes on during driving, it indicates that the Anti-Lock portion of the brake system is not functioning and that service is required. See your authorized dealer immediately. With the ABS malfunctioning, the Brake Assist System (BAS) and Electronic Stability Program (ESP) are also switched off. Both malfunction indicator lights illuminate with the engine running. If the charging voltage falls below 10 volts, the malfunction indicator light illuminates and the ABS is switched off.

When the voltage is above this value again, the malfunction indicator light should go out and the ABS is operational. If the malfunction indicator light stays illuminated, have the system checked at your authorized dealer as soon as possible.

14. Engine Oil Pressure Indicator Light

 This light indicates that the engine oil pressure has become too low. For a bulb check, this light will come on momentarily when the ignition is turned ON. If the light turns on while driving, stop the vehicle and shut off the engine as soon as possible. See your authorized dealer for service immediately.

15. Hybrid Gauge

This gauge indicates in what mode the vehicle is being operated. Refer to “Hybrid Gauge” under “Instrument Panel And Controls”, in Section 4 of this supplement.

16. Gear Selector

The electronic gear selector display is self-contained within the instrument cluster. It displays the position of the automatic transmission shift lever, and the relation of each position to all other positions. For a good signal the display will place a box around the selected transmission range (PRND21). If the PRND21 displays all characters boxed, have the system checked by an authorized dealer.

17. Trip Odometer

The two trip odometers show individual trip mileage. To switch from odometer to trip odometers, press and release the Trip Odometer button.

To reset a trip odometer, display the desired trip odometer to be reset then push and hold the button until the display resets (approximately two seconds).

Engine Run time

Engine Run Time shows the time that the gasoline engine has run. While viewing the odometer reading press and hold the TRIP button for approximately six seconds and the Engine Run Time will be displayed.

Vehicle Warning Messages

For non-Electronic Vehicle Information Center (EVIC) equipped vehicles, when the appropriate conditions exist, messages such as “door ajar” (indicates that a door(s) may be ajar), “gASCAP” (which indicates that your gas cap is possibly loose or damaged), “CHANgE OIL” (indicates that the engine oil should be changed), “Lo-WASH” (low washer fluid), and “noFUSE” (indicates that the IOD fuse is removed from the Integrated Power Module), will display in the odometer.

NOTE: If the vehicle is equipped with an EVIC, most warnings will display in the EVIC. For additional information, refer to “Electronic Vehicle Information Center (EVIC)” in Section 3.

The outside temperature will display in the odometer for non-EVIC equipped vehicles. Pressing the trip odometer RESET button toggles the feature back to the odometer.

Change Oil Message

Your vehicle is equipped with an engine oil change indicator system. The “Change Oil” message will flash in the instrument cluster odometer for approximately 12 seconds after a single chime has sounded to indicate the next scheduled oil change interval. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate dependent upon your personal driving style.

Unless reset, this message will continue to display each time you turn the ignition switch to the ON/RUN position. To turn off the message temporarily, press and release the Trip Odometer button on the instrument cluster. To reset the oil change indicator system (after performing the scheduled maintenance) refer to the following procedure.

1. Turn the ignition switch to the ON position (**Do not start the engine**).
2. Fully depress the accelerator pedal slowly three times within 10 seconds.
3. Turn the ignition switch to the OFF/LOCK position.

NOTE: If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary repeat this procedure.

18. Odometer

The odometer shows the total distance the vehicle has been driven.

U.S. Federal regulations require that upon transfer of vehicle ownership, the seller certify to the purchaser the correct mileage that the vehicle has been driven. Therefore, if the odometer reading is changed during repair or replacement, be sure to keep a record of the reading before and after the service so that the correct mileage can be determined.

19. Electronic Stability Program (ESP) Indicator Light



The yellow ESP indicator light in the speedometer area illuminates with the key in the ignition switch turned to the ON/RUN position. It should go out with the engine running. The ESP/TCS indicator light starts to flash as soon as the tires lose traction and the ESP system becomes active. The ESP/TCS indicator light also flashes when TCS is active

as well as when the ABS is active. If the ESP/TCS indicator light begins to flash during acceleration, ease up on the accelerator and apply as little throttle as possible. Be sure to adapt your speed and driving to the prevailing road conditions. The ESP/TCS indicator light becomes illuminated when the ESP-OFF button has been pressed or ESP is only partially available, caused by lack of engine management or brake thermal model.

20. Transmission Temperature Indicator



This light indicates that there is excessive transmission fluid temperature that might occur with severe usage, such as trailer towing. If this light comes on, stop the vehicle and run the engine at idle or faster, with the transmission in NEUTRAL until the light goes off.

21. Electronic Throttle Control (ETC)



This light informs you of a problem with the Electronic Throttle Control system. If a problem is detected, the light will come on while the engine is running. If the light remains lit with the engine running your vehicle will usually be drivable, however, see your authorized dealer for service as soon as possible. If the light is flashing when the engine is running, immediate service is required and you may experience reduced performance, an elevated/rough idle or engine stall and your vehicle may require towing. The light will come on when the ignition is first turned ON and remain on for 15 seconds as a bulb check. If the light does not come on during starting, have the system checked by your authorized dealer.

22. DOOR AJAR INDICATOR

This light will illuminate when any of the doors are left ajar.

23. BRAKE System Warning Light

The red “BRAKE” warning light will come on when the ignition key is first turned on, and stay on briefly as a bulb check. If the bulb does not come on during starting, have the bulb repaired promptly. If the light stays on, it may be an indication that the parking brake has not been released, or there is a low brake fluid level. If the light remains on when the parking brake has been disengaged, and the fluid level is at the full mark on the master cylinder reservoir, it indicates a possible brake hydraulic system malfunction or a problem with the Brake Booster. In this case, the light will remain on until the condition has been corrected. If the problem is related to the brake booster, the ABS pump will run when applying the brake.

If the parking brake is applied, the light will flash when the shift lever is out of PARK for automatic transmissions.

If the light comes on while driving, pull over immediately. Do not drive the vehicle. Have the vehicle towed to the nearest authorized dealer.

If brake failure is indicated, immediate repair is necessary. Operating the vehicle in this condition is dangerous!

24. *READY*

This light will illuminate green to indicate the vehicle and Hybrid System are capable of providing “on-demand” propulsion power by depressing the accelerator pedal.

25. *ESP/BAS Warning Lamp*

**ESP
BAS** The malfunction lamp for the ESP is combined with BAS. The yellow ESP/BAS warning lamp and the yellow ESP/TCS indicator light in the instrument cluster both come on when the ignition switch is turned to the ON position. They should go out with the engine running. If the ESP/BAS warning lamp comes on continuously with the engine running, a

malfunction has been detected in either the ESP or the BAS system. If this light remains on after several ignition cycles, and the vehicle has been driven several miles/kilometers at speeds greater than 30 mph (48 km/h), see your authorized dealer as soon as possible.

NOTE: The ESP/TCS indicator light and the ESP/BAS warning lamp come on momentarily each time the ignition switch is turned ON.

The ESP control system will make buzzing or clicking sounds when it is actively operating.

26. *Malfunction Indicator Light (MIL)*



This light is part of an Onboard Diagnostic system (OBD II) which monitors the emissions and engine/hybrid control system. If the vehicle is ready for emissions testing the light will come on when the ignition is first turned ON and remain on, as a bulb check, until the engine is started. If the vehicle is not ready for emissions testing the light will come on when

the ignition is first turned ON and remain on for 15 seconds, then blink for 10 seconds, and remain on until the vehicle is started. If the bulb does not come on during starting, have the condition investigated promptly.

If this light comes on and remains on while driving, it suggests a potential engine control problem and the need for system service. See your authorized dealer as soon as possible.

Although your vehicle will usually be drivable and not need towing, see your authorized dealer for service as soon as possible.

CAUTION!

Prolonged driving with the MIL on could cause damage to the engine control system. It also could affect fuel economy and drivability.

If the MIL is flashing, severe catalytic converter damage and power loss will soon occur. Immediate service is required. See your authorized dealer for service immediately.

27. *Tire Pressure Monitoring Telltale Light*



Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a low tire pressure telltale when one or more of your tires are significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also

reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety

of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

CAUTION!

The TPMS has been optimized for the original equipment tires and wheels. TPMS pressures and warning have been established for the tire size equipped on your vehicle. Undesirable system operation or sensor damage may result when using replacement equipment that is not of the same size, type, and/or style. Aftermarket wheels can cause sensor damage. Do not use tire sealant from a can, or balance beads if your vehicle is equipped with a TPMS, as damage to the sensors may result.

28. Airbag Indicator



The indicator lights and remains lit for six to eight seconds when the ignition is first turned ON. If the light does not come on when the ignition is first turned ON, or the light stays on or comes on while driving, have the airbag system checked by an authorized dealer.

29. SVC (Service) 4WD Indicator

The SVC 4WD lights will come on when the ignition key is turned to the ON position and will stay on for two seconds. If the light stays on or comes on during driving, it means that the 4WD system is not functioning properly and that service is required. See your authorized dealer for service.

30. Cruise Light (Speed Control)

This indicator lights when the electronic speed control system is turned on.

31. Hybrid Regenerative Brake System Light



This yellow light will illuminate for a few seconds when the ignition is turned to the ON position as a bulb check. If the light turns on and remains on while driving, it suggests that there is a potential problem with the Regenerative Brake System and the need for system service. See your authorized dealer as soon as possible.

32. TOW/HAUL

The TOW/HAUL button is located at the end of the shift lever. This light will illuminate when the TOW/HAUL button has been selected.

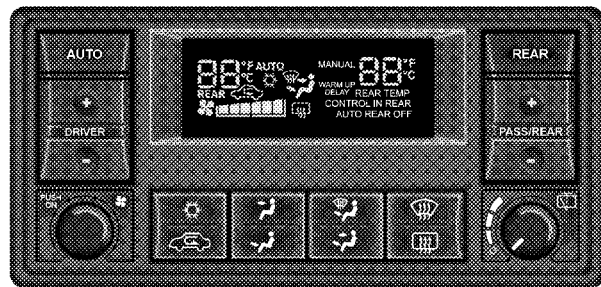
33. Odometer/Trip Odometer Button

Press this button to toggle between the odometer and the trip odometer display. Holding the button in resets the trip odometer reading.

CLIMATE CONTROLS

Automatic Temperature Control (ATC)

The control can be turned on by pressing the POWER knob. When the control is turned on, it will be in the last mode prior to being turned off. Pressing the POWER knob a second time will turn off the control. The control can also be turned on by pressing any button and it will display the corresponding operation mode for that button.



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Automatic Temperature Control

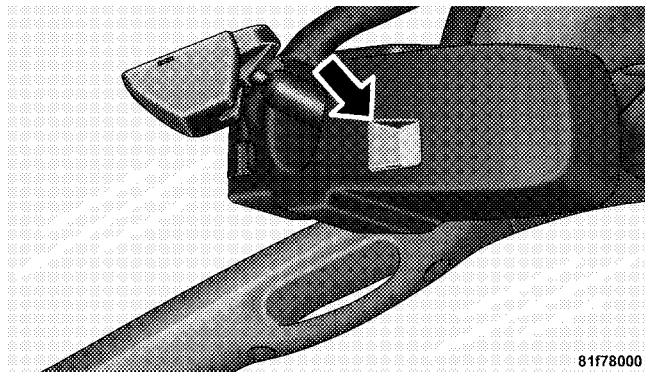
Automatic Control

The ATC system can maintain a steady comfort level in various weather conditions with a simple operation:

- Select your desired temperature setting by pressing the + or - side of the Temp rocker switches. A digital temperature setting for driver and passenger will be

displayed. The ATC system uses an infrared sensor located in the overhead console to measure the temperature of the driver and passengers. Based on the sensor input, the system will automatically control comfort by varying the temperature, fan speed, and mode. This maintains a comfortable temperature, even under changing conditions. It is important that objects are not blocking the infrared sensor. It is also important that objects are not used that may scratch or damage it in any way.

The Hybrid vehicle also uses a humidity sensor to determine cabin comfort, improve system efficiency, and reduce window fogging. This sensor is located behind the rearview mirror. Do not block airflow to the sensor. Use care not to spray the sensor with window cleaner.



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Humidity Sensor

Level Of Automatic Control

72°F (22°C) is the recommended setting for maximum comfort for the average person, however, this may vary.

NOTE:

- The temperature setting can be adjusted at any time without affecting automatic control operation. It is not

necessary to move the temperature setting for cold or hot vehicles. The system automatically adjusts the temperature, mode and fan speed to provide comfort as quickly as possible.


- In cold weather, the fan will not turn on in Auto mode until the engine coolant has warmed up sufficiently. This is indicated by the “WARM UP DELAY” message on the display.
- The temperature can be displayed in U.S. or Metric by selecting the U.S./METRIC Customer-Programmable feature. Refer to “Overhead Console Customer-Programmable Features” in Section 3. The mode will also be shown in the display and will change as required during automatic operation.
- The system can be put into recirculate mode without affecting ATC operation. This will temporarily prevent outside air from entering the vehicle. Use this mode to block out any outside odors, smoke, or dust.

Manual Control (ATC)

You may also choose to customize your comfort by selecting the fan speed and mode manually. Turning the fan speed knob or any mode button places the system into manual operation.

While in manual operation there are six fan speeds available and the choice of any mode. The airflow temperature is adjusted automatically to maintain the desired comfort level. You can adjust the temperature by pressing the + or - Temp rocker switches.

FAN Control

 Use this knob to regulate the amount of air delivered through the system in any mode you select. Rotation of the knob to increase (clockwise) or decrease (counter-clockwise) fan speed.

Air Conditioning Operation



Press this button to enable the air conditioning system. Compressor operation is automatic when you press the AUTO button and no snowflake is shown. A snowflake indicates that the A/C system is enabled. The snowflake will not be displayed in AUTO mode even though the A/C system is enabled.

The compressor may operate at any temperature above 32°F (0°C).

Recirculate Button

The Hybrid vehicle automatically uses a range of recirculation from all outside air to full recirculation (vehicle cabin air) to improve air conditioning efficiency. To request additional outside air push the recirculation button to turn the recirculation indicator on, then push the button again to cycle the indicator off. This will provide more fresh air to the cabin. Press the auto button to return to efficiency recirculation.




Press the RECIRC button to recirculate the air inside the vehicle. Outside air is temporarily prevented from entering the vehicle. Use this mode to block out any outside odors, smoke, dust or when rapid cooling of the interior is required.


Manual control of recirculation is possible only in Panel, Floor, and Bi-Level modes. It will not operate in Mix, or Defrost modes. The recirculation symbol will flash three times indicating recirculation is not available in these modes.

NOTE: If the interior of the windows begin to fog, press the RECIRCULATE button to return to outside air. Some conditions will cause captured interior air to fog windows when in recirculate mode. In the auto mode the humidity sensor may move the recirc setting to outside air to automatically clear the windows of fog.


Panel

 Air flows through the outlets located in the instrument panel. These outlets can be adjusted to direct the airflow.


Floor (Heat)

 Air flows primarily through the floor outlets located under the instrument panel. A small amount of air is directed through the defrost and side window demister outlets.

Mix

 Outside air flows in equal proportions through the floor and defroster outlets.


Bi-Level

 Air flows through the outlets located in the instrument panel and those located on the floor.

NOTE: There is a difference in temperature between the upper and lower outlets for added comfort. The warmer

air goes to the floor outlets. This feature gives improved comfort during sunny but cool conditions.

Defrost

 Outside air is directed to the windshield through the defroster outlet located at the base of the windshield and side window demister outlets.

NOTE: The air conditioning compressor operates in both Mix and Defrost or a blend of these modes, even if the A/C snowflake button has not been pressed. This dehumidifies the air to help dry the windshield.

Rear Temperature Control (ATC)

The REAR button cycles through the following modes:

Rear Control From Front

This allows the driver or passenger to control the rear blower speeds rotating the Power/Fan knob and the rear temperature using the PASS/REAR Temp +/- rocker switch. While in this mode, pressing the POWER/FAN

knob will turn the rear system off. Pressing the Power/Fan knob will turn the rear system back on.

NOTE: The display will show a "REAR" fan speed graph and a "REAR" digital temp setting.

CONTROL IN REAR

This allows the passengers in the second row seats to control the blower speed and temperature by means of the rear control located in the rear of the center floor console as described under the "Rear Zone Climate Control."

NOTE: The front display will show "CONTROL IN REAR."

REAR OFF

This turns the rear system off. The control will return to the front system display after approximately five seconds if no buttons are pushed while in one of the rear system displays. You may also return to the front system display

sooner by pushing any button except the Power/Fan knob, the REAR button, or the driver/passenger Temp rocker buttons.

NOTE: The display will show "REAR OFF."

REAR AUTO

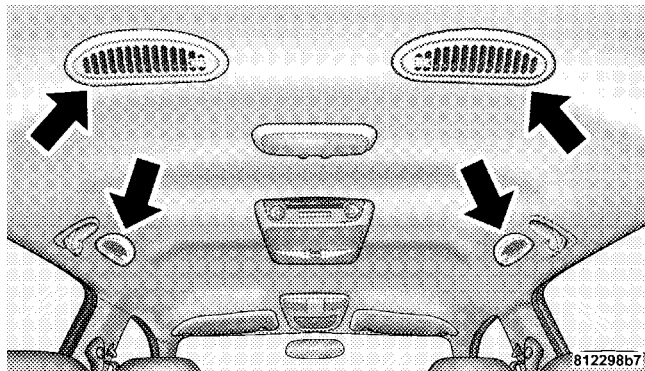
This mode places the rear system in automatic temperature control. Rear temperature can be set as desired (72°F [22°C] recommended for average person) and will be displayed digitally on the front control when in rear mode.

Rear Window Defrosting and Rear Window Washer/Wiper

Refer to "Rear Window Features" in Section 4 of the Owners Manual.

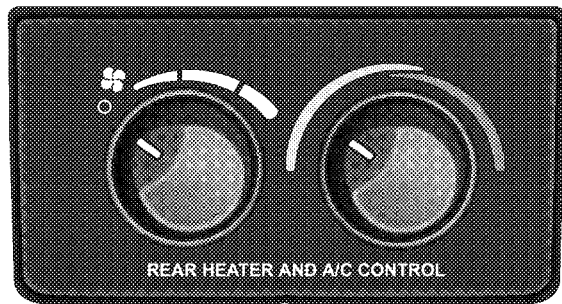
Rear Zone Climate Control

Headliner air comes from the outlets in the headliner. Each of these outlets can be individually adjusted to direct the flow of air. Moving the air vane knobs on the outlets to one side will shut off the airflow.



Rear Outlets

The rear compartment control uses two rotary knobs: one for the temperature control and the other for the fan speed control. The mode for the rear air conditioning and heating system is always controlled by the front control unit. Fan and temperature can be controlled from the front control unit or the rear control unit.



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Rear Rotary Blower Control

The second row seat occupants have control of the rear blower speed only when the front control unit is in the "CONTROL IN REAR" mode.

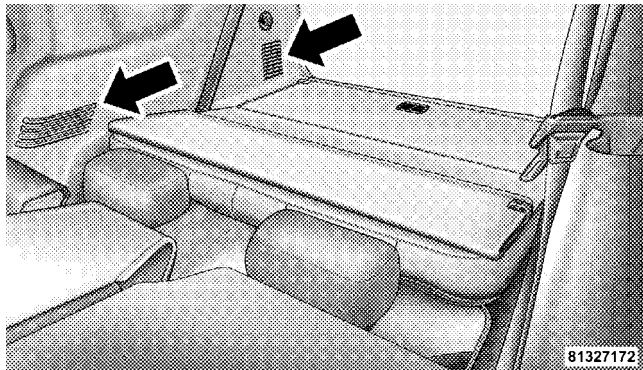
The rear blower switch has an OFF position and a range of blower speeds. Rotating the rear blower control clockwise will increase the blower speed.

Rear Rotary Temperature Control

The second row seat occupants have control of the rear temperature only when the front control unit is in the "REAR CONTROL" position.

To change the temperature in the rear of the vehicle, rotate the temperature control knob to the right or left. The blue area indicates cooler temperatures while the red area indicates warmer temperatures.

NOTE: For best operation, make sure that ventilation grilles located in the rear storage area are not obstructed by stowed articles.



Rear Storage Ventilation Grilles

Front Unit to Rear Unit Chart

If the Front Control is selected	Rear Airflow will come from
Panel	Headliner
Bi-Level	Headliner
Floor	Floor
Mix	Floor
Defrost	Floor

Operating Tips

Fast Cooldown

It is recommended to use Auto mode to allow the control to make the mode and recirculation decisions for a fast cooldown. Drive with the windows down for the first few minutes to purge hot cabin air. To use manual mode follow the steps listed below for a fast cooldown.

For a fast cooldown, set the blower fan to the highest setting, set the mode control to the panel fresh position,

press the Snowflake button to turn on the air conditioning, and drive with the windows open for the first few minutes. Once the hot air has been expelled, close the windows and set the mode selector to the Recirculation panel or Recirculation Bi-level position. When a comfortable condition has been reached, choose a mode position and adjust the temperature control and blower speed as necessary to maintain comfort.

Window Fogging

Windows will fog on the inside when the humidity inside the vehicle is high. This often occurs in mild or cool temperatures when it's rainy or humid. In most cases, turning on the air conditioning (pressing the snowflake button) will clear the fog. Adjust the temperature control, air direction and blower speed to maintain comfort. When the control is in Auto mode the humidity sensor will monitor cabin conditions and reduce interior fogging.

As the temperature gets colder it may be necessary to direct air onto the windshield by using Mix Mode position on the control. Adjust the temperature control and blower speed to maintain comfort. Interior fogging on the windshield can be quickly removed by selecting the defrost mode.

Regular cleaning of the inside of the windows with a non-filming cleaning solution (vinegar and water works very well) will help prevent contaminants (cigarette smoke, perfumes, etc.) from sticking to the windows. Contaminants increase the rate of window fogging.

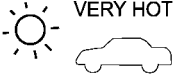



























Summer Operation

Air conditioned vehicles must be protected with a high quality antifreeze coolant during summer to provide proper corrosion protection and to raise the boiling point of the coolant for protection against overheating. A 50% concentration is recommended.

Winter Operation

When operating the system during the winter months, make sure the air intake, located directly in front of the windshield, is free of ice, slush, snow, or other obstructions. This will also prevent snow ingestion into the ducts.

Operating Tips Chart

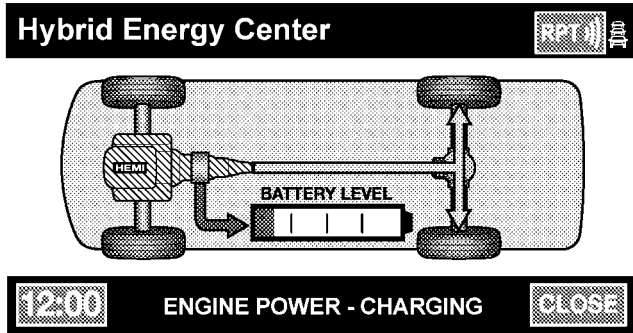
WEATHER	CONTROL SETTINGS
<p>HOT WEATHER AND VEHICLE INTERIOR IS VERY HOT</p> 	<p>Start the vehicle, open the windows and turn the blower control to the high position (use AUTO mode if equipped). Set Mode control at  or . Set Temperature control to full cold and press the  button on. After the hot air has been expelled, close the windows and set the Mode control to the  setting at either  or , or press the  button (if equipped). Once comfortable, choose a mode position and adjust temperature control and blower speed as necessary for comfort.</p>
<p>WARM WEATHER</p> 	<p>If sunny (use AUTO mode if equipped), set the Mode control at  and press the  button on. If cloudy or dark, set the Mode control at . No  is necessary.</p>
<p>COOL OR COLD HUMID CONDITIONS</p> 	<p>If sunny (use AUTO mode if equipped), set the Mode control at  or , then press the  button on. If cloudy or dark, set the Mode control at . No  is necessary.</p>
<p>COLD DRY CONDITIONS</p> 	<p>In cloudy or dark weather (use AUTO mode if equipped), set the Mode control at . If sunny, set the Mode control at  or , and for snowy or very cold weather requiring extra heat to the windshield, use .</p>
<p>WINDOW FOGGING</p> 	<p>In most cases turning on the Air-Conditioning (press the  button) will clear the fog. Adjust temperature control, air direction and blower speed to maintain comfort. As it gets colder, it may be necessary to direct air onto the windshield. If so, set the Mode control at  or  and adjust temperature control and blower speed to maintain comfort. Higher blower speeds will reduce fogging. If equipped with AUTO, you must manually press the Defrost button to clear fog. (Defrost mode is not a feature of the Automatic Temperature Control).</p>

HYBRID ENERGY CENTER

Hybrid System Operating Conditions

The Hybrid System performs various functions depending on the operating condition, such as starting the gas engine, when charging is required, etc.

The following Hybrid System information will be displayed on your vehicle's Navigation Radio screen.

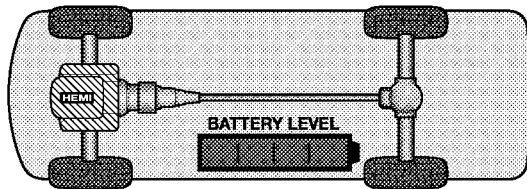


81f56b7a

Engine Power - Charging

This display appears when driving under engine power as well as when the high voltage battery being charged.

Hybrid Energy Center



12:00

ENGINE IDLE - BATTERY FULL

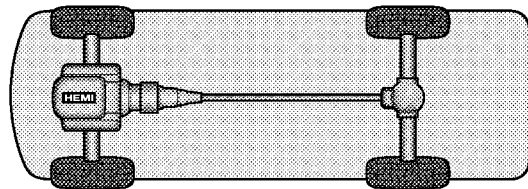
CLOSE

81f56b7e

Engine Idle - Battery Full

This display appears when the engine is at idle and the high voltage battery is fully charged.

Hybrid Energy Center



12:00

SYSTEM OFF

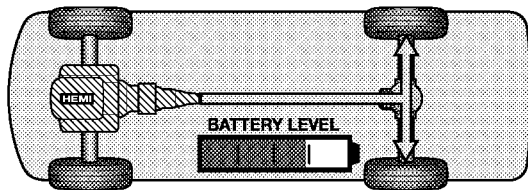
CLOSE

81db4456

System Off

This display appears when the Hybrid System is off.

Hybrid Energy Center



12:00

ENGINE POWER

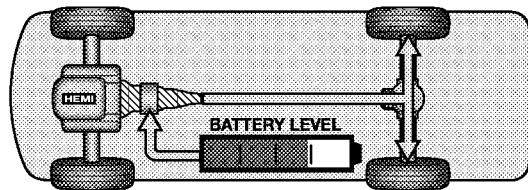
CLOSE

81f56b83

Engine Power

This display appears when the vehicle is driving under engine power only and there is no charging of the high voltage battery.

Hybrid Energy Center



12:00

BATTERY POWER

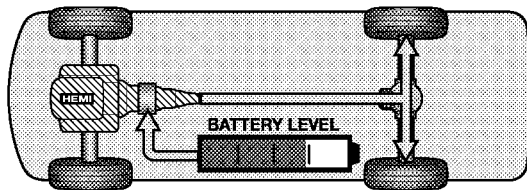
CLOSE

81df3b8c

Battery Power

This display appears when the vehicle is driving in electric mode only.

Hybrid Energy Center



12:00

ENGINE + BATTERY POWER

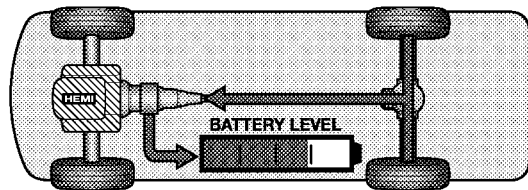
CLOSE

81f56b87

Engine + Battery Power

This display appears when the vehicle is driving in electric mode as well as engine power.

Hybrid Energy Center



12:00

REGENERATING BATTERY

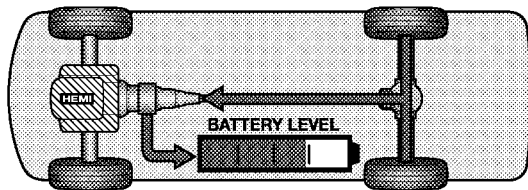
CLOSE

81f56b8b

Regenerating Battery

This display appears when the high voltage battery is being charged with engine off.

Hybrid Energy Center



12:00

REGENERATING BATTERY

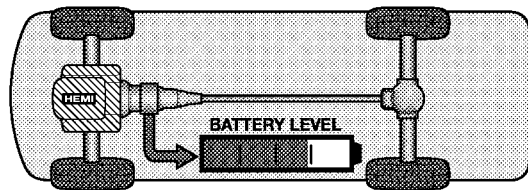
CLOSE

81f56b8b

Regenerating Battery

This display appears when the high voltage battery is being charged with the engine running.

Hybrid Energy Center



12:00

ENGINE IDLE - CHARGING

CLOSE

81f56b8f

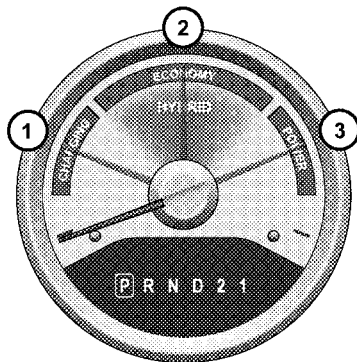
Engine Idle - Charging

This display appears when the engine is idling and the high voltage battery is charging.

HYBRID GAUGE

The Hybrid Gauge, located on the instrument cluster, has three different zones to indicate how the vehicle is being operated in the sense of fuel savings.

NOTE: Driving with the gauge pointer in the 12 O'clock (ECONOMY) position is the optimal Hybrid location.



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Hybrid Gauge

- 1 — CHARGING — Indicates that the high voltage battery is being charged during braking or certain driving conditions.
 - 2 — ECONOMY — Indicates the HEV vehicle is being propelled forward in electric mode, the most fuel efficient of vehicle operation.
 - 3 — POWER — indicates that the accelerator pedal is being applied for additional power which is not the most fuel efficient mode of operation.
-

STARTING AND OPERATING

CONTENTS

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■ Hybrid System Operation	52	■ Four-Wheel Drive Operation	62
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STARTING PROCEDURES

Before starting your vehicle, adjust your seat, adjust both inside and outside mirrors, and fasten your seat belts.

NOTE: This vehicle is not compatible with any after-market remote starting systems. The installation of after-market remote starting systems is NOT recommended.

Turn the key to the START position while your vehicle is in PARK. The Hybrid system strategy, which optimizes fuel economy, determines if it is necessary to start the gasoline engine. The gasoline engine may either shut off shortly after starting or not start at all, depending on temperature and battery charge level. This is a normal part of your Hybrid's fuel-saving strategies. Once the "READY" light illuminates, the vehicle is ready to be driven and the Hybrid system is active. Refer to "Hybrid Gauge" in Section 4 of this supplement manual.

WARNING!

- **Pay special attention to pedestrians when the vehicle is operating under battery power only. Because there is no engine noise, pedestrians may not know the vehicle is moving or about to move and step into the path of the vehicle, causing serious injury or death.**
- **When your vehicle is left unattended, be sure to turn off the Hybrid system.**
- **When the vehicle is in "READY" mode, do not leave your vehicle unattended in any shift position other than PARK. The vehicle may creep and start abruptly if the accelerator pedal is depressed by mistake, causing serious injury or death.**

WARNING!

- **Be sure to turn off the engine and remove the key from the ignition switch if you want to rest or sleep in your car. Accidents can be caused by inadvertently moving the shift lever or by pressing the accelerator pedal. This may cause excessive heat in the exhaust system, resulting in overheating and vehicle fire which may cause serious or fatal injuries.**
- **Do not leave children or animals inside parked vehicles in hot weather. Interior heat build up may cause serious injury or death.**

Normal Starting

Normal starting of either a warm or cold engine is obtained without pumping or depressing the accelerator pedal.

If Engine Fails To Start

If the engine fails to start after you have followed the normal starting procedure, it may be flooded. Push the accelerator pedal all the way to the floor and hold it there while cranking the engine. This should clear any excess fuel in case the engine is flooded.

WARNING!

Never pour fuel or other flammable liquid into the throttle body air inlet opening in an attempt to start the vehicle. This could result in flash fire causing serious personal injury.

WARNING!

Do not attempt to push or tow your vehicle to get it started. Vehicles equipped with an automatic transmission cannot be started this way. Unburned fuel could enter the catalytic converter and once the engine has started, ignite and damage the converter and vehicle. If the vehicle has a discharged battery, a 12 Volt battery charger may be used to charge the vehicle. This type of start can be dangerous if done improperly. See section 6 of this manual for the proper jump-starting procedures and follow them carefully.

HYBRID SYSTEM OPERATION

Your Hybrid vehicle is a unique vehicle that combines the power of a gasoline engine and electric motors to minimize fuel consumption and emissions. This vehicle requires no special fuels and never has to be plugged in. Understanding the unique characteristics of your vehicle will help ensure maximum performance from your vehicle.

Your Hybrid vehicle is also equipped with two electrical voltage systems. A 12 Volt system which is used to power the conventional electrical system and a high voltage system which is used to power the motors in the transmission as well as the high voltage system components.

Normal Hybrid Operation**Shifting**

You must depress the brake pedal fully before shifting out of PARK. During this first brake apply, the brake system is undergoing a self-test function. The brake pedal

travel will be longer than usual. This is normal. Press firmly on the brake to prevent rolling. Refer to “Regenerative Braking System” under “Hybrid Vehicle Unique Operating Characteristics” in this Section.

Driving

The gas engine starts automatically in order to provide power when it is needed and stops automatically to save on fuel when it is not needed. While coasting at low speeds, coming to a stop or standing still, the gas engine will normally shut off and the vehicle will operate on battery power only. Conditions that may cause the gas engine to start up or remain running include:

- Moderate or rapid acceleration
- Vehicle speed
- Climbing a hill
- Charge level of high voltage battery

- Engine temperature, transmission temperature or coolant temperature
- Hybrid system malfunction (Hybrid service lamp on)
- Tow/Haul activated
- Hood is ajar
- Shift lever position 2 or 1

Stopping In Traffic With Idle Stop/Start Function

The gas engine may shut off as you decelerate to a stop, this is normal and will conserve fuel at idle. Restarting the vehicle is not necessary. You will observe a green “READY” light illuminated in the instrument gauge cluster while the gas engine is off, this is normal. “READY” indicates the vehicle and Hybrid system are capable of being driven in electric mode in either DRIVE or REVERSE.

When you desire to move forward with traffic flow, simply depress the accelerator pedal and continue accelerating from idle up to your cruising speed. The gas engine will restart and shut down again automatically when commanded by the Hybrid operating system. Shutting down and restarting (cycling) of the gas engine during low speed traffic conditions less than 30 mph (48 km/h) is normal.

Re-Starting A Warm Engine

Your Hybrid vehicle is automatically equipped with "Silent Start" fuel saving technology. The decision to enable the gas engine on a restart is automatically determined by the Hybrid operating system.

Under certain conditions, the gas engine will not respond (usually when restarting a warmed-up engine that has recently been parked) when the ignition key is inserted and turned to the START position. This is normal and is considered a "Silent Start". When the ignition key is

released to the ON/RUN position you will observe the green "READY" light illuminated in the instrument cluster, but, again, the gas engine is not running. When you experience a "Silent Start" leave the key in the ON/RUN position, then simply place your foot on the brake pedal, move the shift lever into DRIVE or REVERSE and depress the accelerator pedal to drive the Hybrid Vehicle in the Electric Mode.

Transmission Operation

The AHS-T HEV automatic transmission is similar in size to a conventional automatic transmission. The transmission combines two electric motors with four fixed gear ratios within a single transmission housing.

The electric motors can be used for electric-only propulsion, boosting the internal combustion engine or providing regenerative braking.

The transmission will select one of the four fixed gear ratios, or operate as an electrically variable transmission (variable ratio or EVT) depending on driver input and vehicle speed and loading.

Unlike a conventional transmission, the AHS-T HEV automatic transmission can propel the vehicle without the engine running during low speed, light load operation (electric only mode).

NOTE: Your Hybrid vehicle can be run through typical commercial car wash facilities. There are some simple precautions that you should keep in mind.

- When entering an automatic/conveyor style car wash facility, it is important that the driver follow the attendant's or posted instructions and that your Hybrid vehicle's automatic transmission shift lever is shifted to NEUTRAL when instructed.

- A Hybrid vehicle that is in DRIVE with the "READY" light illuminated and gas engine stopped, is NOT a substitute for the NEUTRAL position.

CAUTION!

Car wash equipment damage, vehicle damage or a potential accident event could result if the car wash facility instructions for PARK, NEUTRAL, DRIVE and REVERSE are not followed.

5

Hybrid Vehicle Unique Operating Characteristics

Your Hybrid vehicle operates differently compared to a non-hybrid vehicle. The following is a description of the major differences:

Engine

The engine speed in your hybrid vehicle is not directly tied to your vehicle speed. Your vehicle's engine and transmission are designed to provide the power you need at the most efficient engine speed.

Regenerative Braking

Your Hybrid vehicle has a unique Regenerative Braking System (RBS). The RBS can result in extended life of the hydraulic service brakes; however, all inspection, scheduled maintenance, and service intervals for the vehicle service brakes must be followed. The RBS is used to recharge the high voltage battery under certain driving and braking conditions. The RBS recaptures energy that would otherwise be lost while braking. The electric motors which propel the vehicle forward can operate as generators when braking. The brake system uses conventional hydraulic friction brakes, regenerative braking, or a combination to slow vehicle. The electric power that is generated goes back into the high voltage battery for later

use, for example when acceleration is desired. RBS increases the fuel economy of the vehicle, particularly in stop-and-go city traffic. If the system detects slippery conditions only friction is used to slow the vehicle.

The brake pedal on this Hybrid vehicle will feel different from a conventional vehicle due to the RBS. This is normal. After start-up, during the first brake apply, the brake system is undergoing a self-test function. The brake pedal travel will be longer than usual. This is normal. Press firmly on the brake to prevent rolling. The driver is always responsible for stopping the vehicle.

Climate Control (HVAC System)

Your Hybrid vehicle uses automatic temperature control (ATC) HVAC system with specialized components. This HVAC system utilizes a humidity sensor, cabin infrared (IR) sensor, sun sensor, and ambient temperature sensor to choose operation mode and control cabin comfort. Your Hybrid vehicle also uses a heater auxiliary pump to provide heat to the cabin while the vehicle is in electric

mode. The electrically driven AC compressor is not connected to the engine like a standard gas vehicle. These components allow the control to operate the HVAC system in a very efficient manner to save fuel.

NOTE: It is recommended the vehicle be operated with the air conditioning (AC) on in high ambient temperatures as the high voltage battery is cooled by the cabin air.

Driving To Achieve Maximum Fuel Economy

Your fuel economy should improve throughout your hybrid vehicle's break-in period. As with any vehicle, fuel economy can be significantly impacted by your driving style and accessory usage. For best results, keep in mind the following tips:

Tire Inflation

Keep tires properly inflated and only use the recommended size. Refer to "Tire and Loading Information Placard" under "Tires Safety Information" in Section 5 of your Owner's Manual.

Driving Style

Aggressive driving increases the amount of energy required to move your vehicle. In general, better fuel economy is achieved with mild to moderate acceleration and deceleration.

Moderate braking is particularly important since it allows you to maximize the energy converted and stored from the vehicle's momentum by the Regenerative Braking system.

Additional Tips:

- Observe posted speed limits
- Do not carry extra loads, when it is not necessary
- Perform all scheduled maintenance

AUTOMATIC TRANSMISSION

AHS-T HEV Transmission

The electronic PRND21 on the instrument cluster indicates the transmission range selected. The shift lever is mounted on the right side of the steering column. To drive, move the shift lever from PARK or NEUTRAL to the desired drive position. Pull the shift lever toward you when shifting into REVERSE, SECOND, FIRST or PARK, or when shifting out of PARK.

Brake/Transmission Interlock System

This system prevents you from moving the shift lever out of PARK and into any range unless the brake pedal is pressed. This system is active only while the ignition switch is in the ON position. Always depress the **brake pedal first**, before moving the shift lever out of PARK.

Transmission Ranges

DO NOT race the engine when shifting from PARK or NEUTRAL position into another range.

PARK

Supplements parking brake by locking the transmission. Engine can be started in this range. Never use PARK while vehicle is in motion. Apply parking brake when leaving vehicle in this range. Always apply parking brake first, then place shift lever in the PARK position.

WARNING!

Your vehicle could move and injure you and others if it is not completely in PARK. Check by trying to move the shift lever back and forth without first pulling the shift lever toward you, after you have set it in PARK. Make sure it is in PARK before leaving the vehicle.

WARNING!

Never use **PARK** position on an automatic transmission as a substitute for the parking brake. Always apply the parking brake fully when parked to guard against vehicle movement and possible injury or damage.

WARNING!

It is dangerous to shift the shift lever out of **PARK** or **NEUTRAL** if the engine speed is higher than idle speed. If your foot is not firmly on the brake pedal, the vehicle could accelerate quickly forward or in reverse. You could lose control of the vehicle and hit someone or something. Only shift into gear when the engine is idling normally and when your right foot is firmly on the brake pedal.

REVERSE

Use this range only after the vehicle has come to a complete stop.

NEUTRAL

Shift to NEUTRAL when vehicle is standing for prolonged periods with engine running. Engine may be started in this range. Set the parking brake if you must leave the vehicle.

NOTE: Towing the vehicle (except as specified under Towing A Disabled Vehicle), coasting, or otherwise driving the vehicle while in NEUTRAL can cause severe transmission damage.

DRIVE

For most city and highway driving.

“2” SECOND

For driving on mountain roads where more precise speed control is desirable. Use it also when climbing long grades, and for engine braking when descending moderately steep grades. To prevent excessive engine speed do not exceed 45 mph (72 km/h) in this range.

NOTE: When operating in “2” SECOND the gasoline engine will start and/or remain running.

“1” FIRST

For driving up very steep hills and for engine braking at low speeds 25 mph (40 km/h) or less when going downhill. To prevent excessive engine speed do not exceed 25 mph (40 km/h) in this range.

NOTE: When operating in “1” FIRST the gasoline engine will start and/or remain running.

Drive Operation

The AHS-T HEV automatic transmission contains two electric motors and four fixed gear ratios. The transmission will select one of the four fixed gear ratios, or operate an electrically variable transmission (EVT) to maximize fuel economy when the following conditions are present:

- the transmission shift lever is in DRIVE;

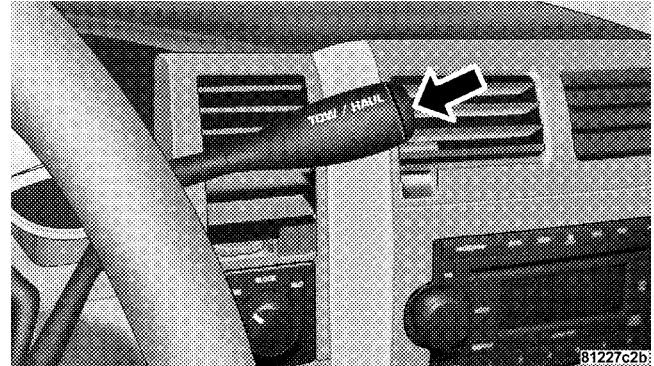
- the engine coolant has reached normal operating temperature;
- the TOW/HAUL switch has not been activated;
- transmission has reached normal operating temperature.

NOTE:

- If the vehicle is started in extremely cold temperatures, the transmission will automatically select the most desirable gear for operation at this temperature. Normal operation will resume when the transmission fluid temperature has risen to a suitable level.
- If the transmission temperature gets extremely hot, the transmission will automatically select the most desirable gear for operation at this temperature. If the transmission temperature becomes hot enough, the TRANS TEMP light may illuminate until the transmission cools down. After cooldown, the transmission will resume normal operation.

When To Use TOW/HAUL Mode

When driving in hilly areas, towing a trailer, carrying a heavy load, etc., and frequent transmission shifting occurs, press the TOW/HAUL button.



TOW/HAUL Button

This will improve performance and reduce the potential for transmission overheating or failure due to excessive

shifting. When operating in TOW/HAUL mode, the transmission will select gear ratios that maximize towing power, with less emphasis on fuel economy.

NOTE: Electric only mode and engine stop-start are disabled then TOW/HAUL is activated.

The TOW/HAUL light will illuminate in the instrument cluster to indicate when the switch has been activated. Pressing the switch a second time restores normal operation. If the TOW/HAUL mode is desired, the button must be pressed each time the engine is started.

FOUR-WHEEL DRIVE OPERATION

MP 3010 “Active On Demand” Transfer Case

The MP 3010 is a single speed (4 HI range only) transfer case which provides convenient full-time four-wheel drive. No driver interaction is required. This transfer case divides engine torque almost evenly with normally 47%

of engine torque to the front axle and 53% of engine torque to the rear axle. Resulting in a vehicle with good traction and stability.

Proper operation of four-wheel drive vehicles depends on tires of equal size, type and circumference on each wheel. Any difference in tire size can cause damage to the transfer case.

Because four-wheel drive provides improved traction, there is a tendency to exceed safe turning and stopping speeds. Do not go faster than road conditions permit.

This four-wheel drive (4WD) system allows the front and rear wheels to rotate at different speeds when required by the road condition or road surface.

The “SVC 4WD” warning light monitors the electric shift 4WD system. If this light remains on after engine start up or illuminates during driving, it means that the 4WD

system is not functioning properly and that service is required. See your authorized dealer for immediate service.

WARNING!

Always engage the parking brake when powering down the vehicle if the "SVC 4WD" light is illuminated. Not engaging the parking brake may allow the vehicle to roll, which may cause personal injury.

POWER STEERING

Your vehicle is equipped with an electro-hydraulic power steering system that will give you good vehicle response and increased ease of maneuverability in tight spaces. The system will vary its assist to provide light efforts while parking and good feel while driving. If the electro-hydraulic power steering system experiences a fault that

prevents it from providing power steering assist, the system will provide mechanical steering capability.

CAUTION!

Operation in very high temperatures with a high level of steering activity may cause the electrically driven pump to reduce or stop assist in order to prevent damage to the system. Normal operation will resume once the system is allowed to cool.

If for some reason the power assist is interrupted, it will still be possible to steer your vehicle. Under these conditions you will observe a substantial increase in steering effort, especially at very low vehicle speeds and during parking maneuvers.

NOTE: Increased noise levels at the end of the steering wheel travel are considered normal and does not indicate that there is a problem with the power steering system.

Upon initial start-up in cold weather, the power steering pump may make noise for a short period of time. This noise should be considered normal, and does not in any way damage the steering system.

WARNING!

Continued operation with reduced power steering assist could pose a safety risk to yourself and others. Service should be obtained as soon as possible.

CAUTION!

Prolonged operation of the steering system at the end of the steering wheel travel will increase the steering fluid temperature and should be avoided when possible. Damage to the power steering pump may occur.

ELECTRONIC BRAKE CONTROL SYSTEM

Your vehicle is equipped with an advanced electronic brake control system that includes Anti-Lock Brake System (ABS), Brake Assist System (BAS), Traction Control System (TCS), Electronic Roll Mitigation (ERM), Electronic Stability Program (ESP), Trailer Sway Control (TSC) and Hill Start Assist (HSA). All seven systems work together to enhance vehicle stability and control in various driving conditions, and are commonly referred to as ESP.

Hill Start Assist (HSA)

The HSA system is designed to assist the driver when starting a vehicle from a stop on a hill. HSA will maintain the level of brake pressure the driver applied for a short period of time after the driver takes their foot off of the brake pedal. If the driver does not apply the throttle during this short period of time, the system will release brake pressure and the vehicle will roll down the hill. The

system will release brake pressure in proportion to amount of throttle applied as the vehicle starts to move in the intended direction of travel.

HSA Activation

The following must be met in order for HSA to activate:

- Vehicle must be stopped.
- Vehicle must be on a 8% grade or greater hill.
- Gear selection matches vehicle uphill direction (i.e., vehicle facing uphill is in forward gear; vehicle backing uphill is in REVERSE gear).

HSA will work in REVERSE and all forward gears when the activation requirements have been met. The system will not activate if the vehicle is placed in NEUTRAL or PARK.

WARNING!

There may be situations on minor hills (i.e., less than 8%), with a loaded vehicle, or while pulling a trailer, when the system will not activate and slight rolling may occur. This could cause a collision with another vehicle or object. Always remember the driver is responsible for braking the vehicle.

Towing with HSA

HSA will provide assistance when starting on a grade when pulling a trailer.

WARNING!

- **If you use a trailer brake controller with your trailer, your trailer brakes may be activated and deactivated with the brake switch. If so, when the brake pedal is released there may not be enough brake pressure to hold the vehicle and trailer on a hill and this could cause a collision with another vehicle or object behind you. In order to avoid rolling down the hill while resuming acceleration, manually activate the trailer brake prior to releasing the brake pedal. Always remember the driver is responsible for braking the vehicle.**
- **HSA is not a parking brake. If you stop the vehicle on a hill without putting the transmission in PARK and using the parking brake, it will roll down the hill and could cause a collision with another vehicle or object. Always remember to use the parking brake while parking on a hill, and that the driver is responsible for braking the vehicle.**

HSA Off

If you wish to turn off the HSA system, it can be done using the Customer Programmable Features in the Electronic Vehicle Information Center (EVIC), in Section 3 of this manual.

WHAT TO DO IN EMERGENCIES

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JUMP-STARTING PROCEDURES

Your Hybrid vehicle is equipped with both a 12 Volt battery and a high voltage battery. Either battery may become discharged and cause a no crank condition as a result of low voltage.

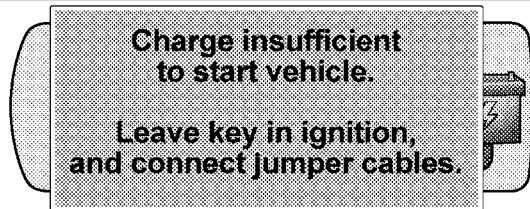
If the 12 Volt battery's state of charge is too low and the engine will not crank the 12 Volt battery light, located in the cluster, may illuminate. If this occurs refer to "Jump-Starting — 12 Volt Battery" in this Section.

If the high voltage battery's state of charge is too low and the engine will not crank, the Navigation radio will display a "Charge Insufficient" message. If this occurs refer to "Jump Assist Procedure – High Voltage Battery" in this Section.

Jump Assist Procedure – High Voltage Battery

The "Jump Assist" procedure allows you to charge the high voltage battery using the 12 Volt battery system. The Navigation radio will guide you through the "Jump Assist" procedure.

Charge Assist Mode



12:00

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Charge Insufficient Message

This message indicates that the vehicle is in “Jump Assist” mode, and can be charged by following the “Jump Assist” procedure. You will have approximately 15 minutes to connect a 12 Volt battery charger and begin charging the system. If you are unable to connect a 12 Volt battery charger within 15 minutes, turn the ignition key to the START position to re-initiate “Jump Assist” mode.

NOTE:

- Depending on the high voltage battery’s state of charge, it may take up to 60 minutes for the system to become adequately charged to start the engine.
- There are remote battery posts located under the hood that are used to assist in the “Jump Assist” procedure.
- A second running vehicle may be used in this “Jump Assist” procedure provided the generator output is a minimum of 125 amps.

WARNING!

- **A battery generates hydrogen gas which is flammable and explosive. Keep flame or spark away from the vent holes. DO NOT use a booster battery or any other booster source with a nominal voltage output that exceeds 12 Volts.**
- **Battery fluid is a corrosive acid solution; do not allow battery fluid to contact eyes, skin or clothing. If acid splashes in eyes or on skin, flush the contaminated area immediately with large quantities of water.**

NOTE:

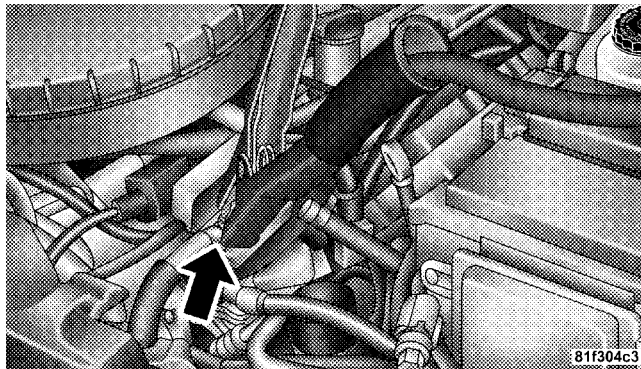
- A 12 Volt battery charger with a minimum 30 Amp rating is the only type recommended to use when charging the high voltage battery.

- Depending on the condition of the second running vehicles alternator and the number of accessories operating on both vehicles, it could take up to 60 minutes to charge the high voltage battery. To minimize the charging time ensure that the minimum amount of accessories are being used.

Always wear eye protection and remove all metal jewelry such as watch bands or bracelets which might make an unintended electrical contact.

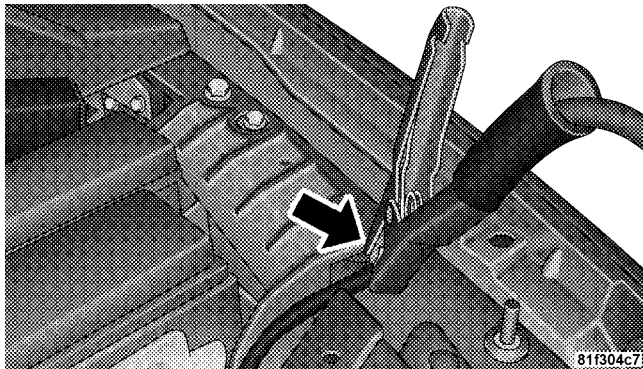
1. Turn OFF all unnecessary electrical loads such as the heater, radio, lights etc.
2. Set the parking brake, place the transmission in PARK and turn the ignition to the ON/RUN position.
3. Place the battery charger within cable reach of the remote battery posts located under the hood.

4. Connect the positive cable clamp of the 12 Volt battery charger to the remote positive post located near the engine oil dipstick underhood.



Remote Positive Post

5. Connect the negative cable clamp of the 12 Volt battery charger to the remote negative post located near the driver's side fender underhood.



Negative Post

6. Place the 12 Volt battery charger to a medium setting and turn ON the battery charger to allow the high voltage battery to charge.

6

WARNING!

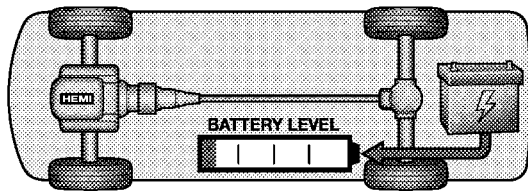
During cold weather when temperatures are below freezing point, electrolyte in a discharged battery may freeze. Do not attempt jump-starting because the battery could rupture or explode. The battery temperature must be brought up above freezing point before attempting a jump-start.

CAUTION!

Using a setting higher than a medium rate of charge could damage the 12 Volt battery.

7. If the 12 Volt battery charger has been properly connected and the system determines that the conditions are correct for charging, the Navigation radio will display a message “CHARGING in Progress”.

Charge Assist Mode



CHARGING
in Progress

DO NOT START VEHICLE!

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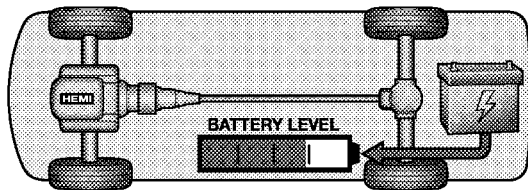
Charging In Progress

NOTE: To minimize the charging time, it is recommended to leave the key in the OFF position while in the

“CHARGING in Progress” mode, however the key may be turned to the ON/RUN position to use an accessory.

Allow the system to charge until the Navigation radio displays the “Attempt to start vehicle” message.

Charge Assist Mode



CHARGE is
Sufficient

Attempt to start vehicle...

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Attempt To Start Message

8. Attempt to start the vehicle, if the vehicle starts, leave it running and turn off the 12 Volt battery charger.

9. Remove the 12 Volt battery charger negative clamp.

CAUTION!

Be careful of the moving belt and fan blades.

10. Remove the 12 Volt battery charger positive clamp.

WARNING!

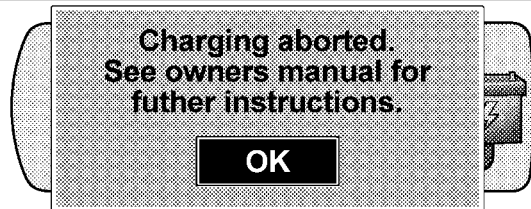
Any procedure other than above could result in:

- Personal injury caused by electrolyte squirting out the battery vent;
- Personal injury or property damage due to battery explosion;
- Damage to charging system or immobilized vehicle.

Charging Aborted

If the “Jump Assist” procedure is interrupted, the Navigation radio will display “Charge Aborted”.

Charge Assist Mode



CHARGING
in Progress

DO NOT START VEHICLE!

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Charging Aborted

“Jump Assist” can be aborted by the following items:

- The key is turned to the START position while the system is being charged.

- Incorrect installation of the 12 Volt battery charger.
- Poor cable clamp contact.
- The Hybrid Control Module determines conditions are not suitable for charging.

If the “Charge Aborted” message is displayed check the battery charger clamps, making sure there is a good connection. Check to see that the 12 Volt battery charger is turned on. Turn OFF the ignition, wait 10 to 15 seconds and turn the key to the START position. If the “Charge Aborted” message is still active have the vehicle towed to the nearest authorized dealer for service.

Jump-Starting — 12 Volt Battery

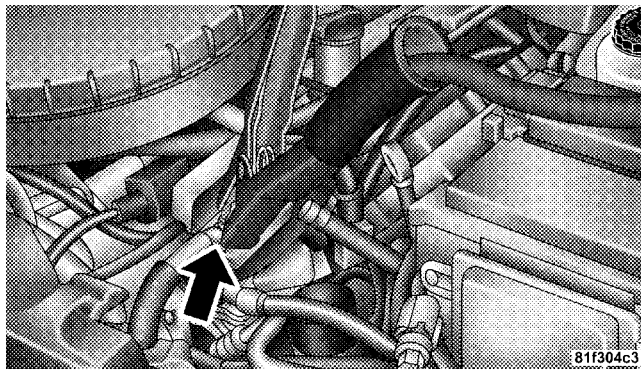
WARNING!

- **Battery fluid is a corrosive acid solution; do not allow battery fluid to contact eyes, skin or clothing. Don't lean over battery when attaching clamps or allow the clamps to touch each other. If acid splashes in eyes or on skin, flush the contaminated area immediately with large quantities of water.**
- **A battery generates hydrogen gas which is flammable and explosive. Keep flame or spark away from the vent holes. Do not use a booster battery or any other booster source with an output that exceeds 12 volts.**

Check the Battery Test Indicator (if equipped). If a light or bright colored dot is visible in the indicator (if equipped), DO NOT jump-start the battery.

If the indicator (if equipped) is dark or shows a green dot, proceed as follows:

1. Wear eye protection and remove all metal jewelry such as watch bands or bracelets which might make an unintended electrical contact.
2. Park the booster vehicle within cable reach but without letting the vehicles touch. Set the parking brake, place the automatic transmission in PARK and turn the ignition OFF on both vehicles.
3. Turn OFF heater, radio and all unnecessary electrical loads.
4. Connect one end of a jumper cable to the positive terminal of the booster battery. Connect the other end of the same cable to the remote positive post.



Remote Positive Post

WARNING!

Do not permit vehicles to touch each other as this could establish a ground connection and personal injury could result.

5. Connect the other cable, first to the negative terminal of the booster battery and then to the engine of the vehicle with the discharged battery. Make sure you have a good contact on the engine.

WARNING!

Do not connect the cable to the negative post of the discharge battery. The resulting electrical spark could cause the battery to explode.

During cold weather when temperatures are below freezing point, electrolyte in a discharged battery may freeze. Do not attempt jump-starting because the battery could rupture or explode. The battery temperature must be brought up above freezing point before attempting a jump-start.

6. Start the engine in the vehicle which has the booster battery, let the engine idle a few minutes, then start the engine in the vehicle with the discharged battery.

7. When removing the jumper cables, reverse the above sequence exactly. Be careful of the moving belts and fan.

WARNING!

Any procedure other than above could result in:

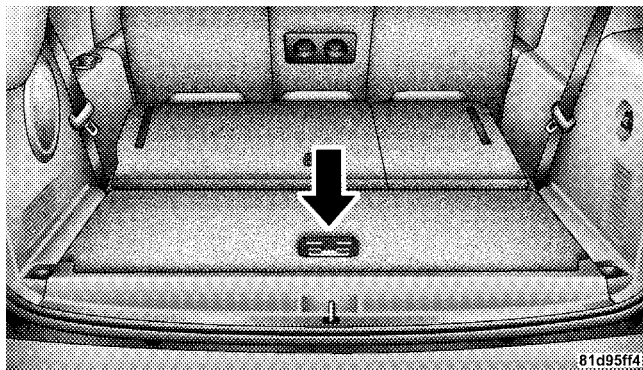
- 1. Personal injury caused by electrolyte squirting out the battery vent;**
- 2. Personal injury or property damage due to battery explosion;**
- 3. Damage to charging system of booster vehicle or of immobilized vehicle.**

TIREFIT KIT

Small punctures in the tire tread can be sealed with TIREFIT. Foreign objects (e.g., screws or nails) should not be removed from the tire. TIREFIT can be used in outside temperatures down to approximately -4°F (-20°C).

TIREFIT Storage

The TIREFIT kit is located in the rear storage compartment located behind the third row seats.



TIREFIT Location

TIREFIT Usage Precautions

NOTE:

- Replace the TIREFIT Sealant Bottle prior to the expiration date (printed on the bottle label) to assure optimum operation of the system.
- When the TIREFIT Sealant is in a liquid form, clean water, and a damp cloth will remove the material from the vehicle or tire and wheel components. Once the sealant dries, it can easily be peeled off and properly discarded.
- For optimum performance, make sure the valve stem on the wheel is free of debris before connecting the TIREFIT kit.
- You can use the TIREFIT air pump to inflate bicycle tires. The kit also comes with two needles located in the Accessory Storage Compartment (8) for inflating sport balls, rafts, or like inflatable items. However, use only the Black Air Pump Hose (6) and make sure the Mode Select Knob (4) is in the Air Mode when inflating such items to avoid injecting sealant into them. The TIREFIT Sealant is only intended to seal small punctures in the tire tread of a tire on this vehicle.

WARNING!

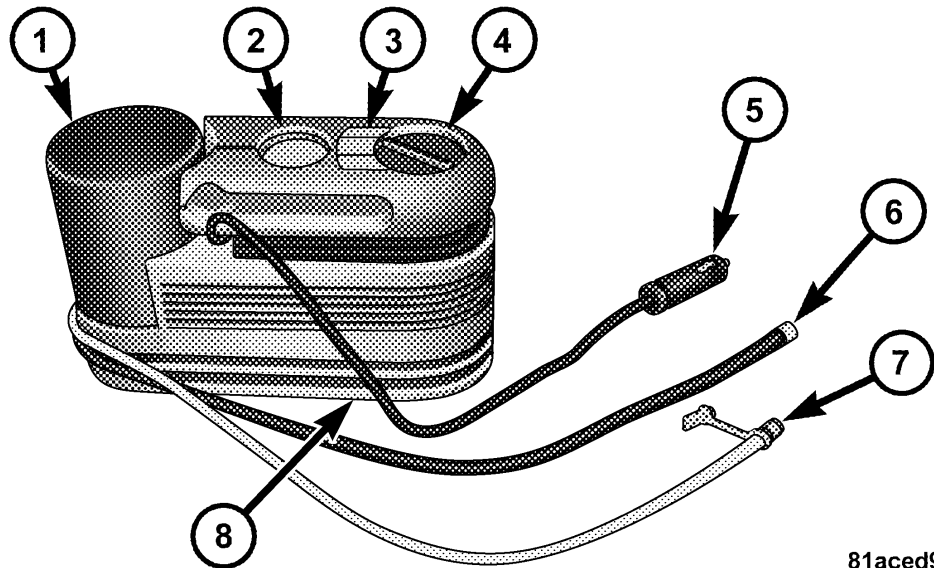
- Do not attempt to seal a tire on the side of the vehicle close to traffic. Pull far enough off the road to avoid the danger of being hit when using the TIREFIT kit.
- Do not use TIREFIT or drive the vehicle under the following circumstances:
 - If the cut or puncture in the tire tread is approximately 0.24 in. (6 mm) or larger.
 - If the tire has any sidewall damage.
 - If the tire has any damage from driving with extremely low tire pressure.
 - If the tire has any damage from driving on a flat tire.
 - If the wheel has any damage.
 - If you are unsure of the condition of the tire or the wheel.
- Keep TIREFIT away from open flame or heat source.
- TIREFIT is not a permanent flat tire repair. Have the tire inspected and repaired or replaced after using TIREFIT. Do not exceed 55 mph (90 km/h) until having the tire repaired or replaced.
- A loose TIREFIT kit thrown forward in a collision or hard stop could endanger the occupants of the vehicle. Always stow the TIREFIT kit in the place provided.

Failure to follow these warnings can result in injuries that are serious or fatal to you, your passengers, and others around you.

WARNING!

- Take care not to allow the contents of TIREFIT to come in contact with hair, eyes, or clothing. TIREFIT is harmful if inhaled, swallowed, or absorbed through the skin: It causes skin, eye, and respiratory irritation. Flush immediately with plenty of water if there is any contact with eyes or skin. Change clothing as soon as possible, if there is any contact with clothing.
- TIREFIT Sealant solution contains latex. In case of allergic reaction or rash, consult a physician immediately. Keep TIREFIT out of reach of children. If swallowed, rinse mouth immediately with plenty of water and drink plenty of water. Do not induce vomiting! Consult a physician immediately.
- Use the gloves provided in the Accessory Storage Compartment (8) when operating the TIREFIT kit.

TIREFIT Kit Components & Operation



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1. Sealant Bottle
2. Pressure Gauge
3. Air Pump Power Button
4. Mode Select Knob
5. Power Plug & Cable
6. Air Pump Hose (Black)
7. Sealant Hose (Clear with Yellow Cap)
8. Accessory Storage Compartment

Using the Mode Select Knob & Hoses

Selecting Air Mode



Turn the Mode Select knob (4) to this position for air pump operation only. Use the Black Air Pump Hose (6) when selecting this mode.

Selecting Sealant/Air Mode



Turn the Mode Select knob (4) to this position to inject the TIREFIT Sealant and to inflate the tire. Use the Sealant Hose (Clear hose with the Yellow Cap) (7) when selecting this mode.

Using the Air Pump Power Button



Push and release the button (3) once to turn ON the TIREFIT kit. Push and release the button (3) again to turn OFF the TIREFIT kit.

Sealing a Tire with TIREFIT

(A) Whenever You Stop to Use TIREFIT:



Turn ON the vehicle's hazard warning flashers.

1. Verify that the valve stem (on the wheel with the deflated tire) is in a position that is near to the ground. This will allow the TIREFIT Hoses (6) and (7) to reach the valve stem and keep the TIREFIT kit flat on the ground. This will provide the best positioning of the kit when injecting the sealant into the deflated tire and running the air pump. Move the vehicle as necessary to place the valve stem in this position before proceeding.
2. Place the transmission in PARK (auto transmission) or in Gear (manual transmission) and turn OFF the ignition.
3. Set the parking brake.

(B) Setting Up to Use TIREFIT:

1. Remove the gloves from the Accessory Storage Compartment (8) and place them on your hands.



2. Turn the Mode Select knob (4) to the Sealant/Air Mode position.

3. Uncoil the Clear Sealant Hose (7) and then remove the Yellow Cap from the fitting at the end of the hose.
4. Place the TIREFIT kit flat on the ground next to the deflated tire.
5. Remove the cap from the valve stem and then screw the fitting at the end of the Sealant Hose (7) onto the valve stem.
6. Uncoil the Power Plug and Cable (5) and then insert the plug into the vehicle's power outlet.

NOTE: Do not remove foreign objects (e.g., screws or nails) from the tire.

(C) Injecting TIREFIT Sealant into the deflated tire:

1. Always start the engine before turning ON the TIREFIT kit.



2. After pressing the Air Pump Power Button (3), the air pump should start to inflate the tire and the sealant (white fluid) will flow from the Sealant Bottle (1) through the Sealant Hose (7) and into the tire. **NOTE:** Some sealant may leak out through the puncture in the tire.

3. If the sealant Does Not Flow Through the Clear Sealant Hose (7):

- Press the Air Pump Power Button (3) to turn OFF the TIREFIT kit. Disconnect the Clear Sealant Hose (7) from the valve stem. Make sure the valve stem is free of debris. Reconnect the Clear Sealant Hose (7) to the valve stem. Press the Air Pump Power Button (3) to turn ON the TIREFIT kit.
- Turn the Mode Select knob to the Sealant/Air Mode.
- Connect the Power Plug (5) to a different power outlet in your vehicle or another vehicle, if available. Make sure the engine is running before turning ON the TIREFIT kit.
- The Sealant Bottle (1) may be empty due to previous use. Call for assistance.

(D) After Injecting TIREFIT Sealant:

1. Allow the air pump to inflate the tire to the pressure indicated on the tire pressure label on the driver-side latch pillar. Check the pressure in the tire by looking at the Pressure Gauge (2).

- If the tire inflates to at least 26 psi (1.8 bar) within 15 minutes, proceed to Step 2 of this procedure.
- If tire fails to inflate to 26 psi (1.8 bar) within 15 minutes, perform the procedure steps described under “(G) Distributing TIREFIT Sealant to Better Enable Tire Inflation.”



- Press the Air Pump Power Button (3) to turn OFF the TIREFIT kit.

2. Remove the Speed Limit sticker from the top of the Sealant Bottle (1) and place the sticker on the steering wheel.

3. Disconnect the Clear Sealant Hose (7) from the valve stem, reinstall the Yellow Cap on the fitting at the end of the hose, and place the TIREFIT kit in the vehicle.

CAUTION!

Failure to reinstall the Yellow Cap on the fitting at the end of the Clear Sealant Hose (7) can result in sealant contacting your skin, clothing, and the vehicle's interior. It can also result in sealant contacting internal TIREFIT kit components causing permanent damage to the kit.

(E) Securing TIREFIT Sealant in the Tire

Drive the vehicle for approximately 5 miles (8 km) to ensure distribution of the TIREFIT Sealant within the tire.

WARNING!

TIREFIT is not a permanent flat tire repair. Have the tire inspected and repaired or replaced after using TIREFIT. Do not exceed 55 mph (90 km/h) until having the tire repaired or replaced. Failure to follow this warning can result in injuries that are serious or fatal to you, your passengers, and others around you.

(F) After Securing TIREFIT Sealant in the Tire:

Turn the Mode Select knob (4) to the Air Mode position.

1. Uncoil the Black Air Pump Hose (6) and connect it to the valve stem.
2. Check the pressure in the tire by reading the Pressure Gauge (2).

- If the pressure is less than 19 psi (1.3 bar), the tire is too badly damaged. Do not attempt to drive the vehicle further. Call for assistance.
- If the pressure is equal to or greater than 19 psi (1.3 bar), but less than the level indicated on the tire pressure label, proceed to Step 4 of this procedure.
- If the pressure is at the level indicated on the tire pressure label on the driver-side latch pillar, proceed to Step 5 of this procedure.

3. Inflate the tire to the pressure indicated on the tire pressure label on the driver-side latch pillar.
4. Disconnect the TIREFIT kit from the valve stem and then reinstall the cap on the valve stem.
5. Place the TIREFIT kit in its proper storage area in the vehicle.

6. Have the tire inspected and repaired or replaced at the earliest opportunity at an authorized dealer or tire service center.

7. Replace the Sealant Bottle (1) at your nearest authorized Mopar® parts dealership as soon as possible. Refer to “(H) Sealant Bottle Replacement.”

(G) Distributing TIREFIT Sealant to Better Enable Tire Inflation

NOTE: Use this procedure only if directed here from Step 1 of “(D) After Injecting TIREFIT Sealant.”



Press the Air Pump Power Button (3) to turn OFF the TIREFIT kit. Then, disconnect the Clear Sealant Hose (7) from the valve stem, reinstall the Yellow Cap on the fitting at the end of the hose, and place the TIREFIT kit in the vehicle.

CAUTION!

Failure to reinstall the Yellow Cap on the fitting at the end of the Clear Sealant Hose (7) can result in sealant contacting your skin, clothing, and the vehicle's interior. It can also result in sealant contacting internal TIREFIT kit components causing permanent damage to the kit.

1. Drive the vehicle forward approximately 30 to 50 feet (9 to 15 m) to distribute the sealant more evenly within the tire.
2. Return to Step 1 of “(D) After Injecting TIREFIT Sealant” and attempt to inflate the tire. However, this time, if the tire fails to inflate to 26 psi (1.8 bar) within 15 minutes, the tire is too badly damaged. Do not attempt to drive the vehicle further. Call for assistance.

(H) Sealant Bottle Replacement

1. Uncoil the Clear Sealant Hose (7).
2. Locate the rectangular SEALANT BOTTLE RELEASE button in the recessed area where you place your fingers to unlatch the hoses (6) (7) from their storage area.
3. Use the Yellow Cap on end of the Clear Sealant Hose (7) to depress the SEALANT BOTTLE RELEASE button. The Sealant Bottle (1) will pop up. Remove the bottle and dispose of it accordingly.
4. Clean any remaining sealant from the TIREFIT housing.
5. Position the new Sealant Bottle (1) to the housing so that the Clear Sealant Hose (7) aligns with the hose slot in the front of the housing and the alignment keys on the bottom of the bottle align with the alignment slots in the housing. Then, press the bottle into the housing. An audible click will be heard, indicating the bottle is locked in place.
6. Verify the Yellow Cap is installed on the fitting at the end of the Clear Sealant Hose (7) and return the hose to its storage area.
7. Return the TIREFIT kit to its storage area in the vehicle.

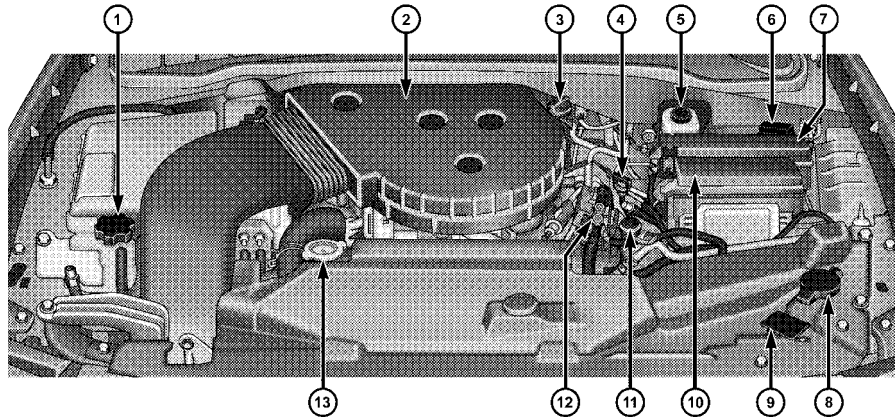
MAINTAINING YOUR VEHICLE

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ENGINE COMPARTMENT 5.7L HEMI V-8



- 1 — Traction Power Inverter Module (TPIM) Coolant Bottle
- 2 — Air Cleaner Filter
- 3 — Engine Oil fill
- 4 — Engine Oil Dipstick
- 5 — Brake Fluid Reservoir
- 6 — Fuses (Power Distribution Center 2)
- 7 — Fuses (Power Distribution Center)

- 8 — Washer Fluid Bottle
- 9 — Engine Coolant Bottle
- 10 — Fuses (Integrated Power Module)
- 11 — Power Steering Fluid
- 12 — Remote Jump-Start Positive Battery Post
- 13 — Engine Coolant Pressure Cap

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ONBOARD DIAGNOSTIC SYSTEM — OBD II

Your vehicle is equipped with a sophisticated Onboard Diagnostic system called OBD II. This system monitors the performance of the emissions, engine, hybrid systems and automatic transmission control systems. When these systems are operating properly, your vehicle will provide excellent performance and fuel economy, as well as engine emissions well within current government regulations.

If any of these systems require service, the OBD II system will turn on the Malfunction Indicator Light (MIL). It will also store diagnostic codes and other information to assist your service technician in making repairs. Although your vehicle will usually be drivable and not need towing, see your authorized dealer for service as soon as possible.

CAUTION!

- **Prolonged driving with the MIL on could cause further damage to the emission control system. It could also affect fuel economy and drivability. The vehicle must be serviced before any emissions tests can be performed.**
- **If the MIL is flashing while the engine is running, severe catalytic converter damage and power loss will soon occur. Immediate service is required.**

Loose Fuel Filler Cap Message

After fuel is added, the vehicle diagnostic system can determine if the fuel filler cap is possibly loose, improperly installed, or damaged. A loose fuel filler cap message will be displayed in the instrument cluster. Tighten the gas cap until a "clicking" sound is heard. This is an indication that the gas cap is properly tightened. Press

the odometer RESET button to turn the message off. If the problem persists, the message will appear the next time the vehicle is started. This might indicate a damaged cap. If the problem is detected twice in a row, the system will turn on the MIL. Resolving the problem will turn the MIL off.

EMISSIONS INSPECTION AND MAINTENANCE PROGRAMS

This vehicle is EXEMPT from all Federal and California tailpipe emission I/M (Inspection/Maintenance) testing.



For states which have an I/M (Inspection and Maintenance) requirement, this check verifies the following: the Malfunction Indicator Lamp (MIL) is functioning and is not on when the engine is running, and that the On Board Diagnostic (OBD II) system is ready for testing.

MAINTENANCE PROCEDURES

WARNING!

Your vehicle has both a high voltage DC and AC system as well as a 12 Volt system. DC and AC high voltage are both extremely dangerous and can cause severe burns, electric shock, serious injury or even death.

- **In order to avoid personal injuries, DO NOT TOUCH THE HIGH VOLTAGE CABLES (ORANGE COLORED) AND THEIR CONNECTORS).**
- **Follow all Caution and Warning Labels attached to the high voltage (Hybrid System) components.**
- **Do not remove or replace any of the Hybrid System components. All replacement or repairs of Hybrid System components should be performed by a factory-trained technician at an authorized dealer.**

The pages that follow contain the **required** maintenance services determined by the engineers who designed your vehicle.

Besides the maintenance items for which there are fixed maintenance intervals, there are other items that should operate satisfactorily without periodic maintenance. However, if a malfunction of these items does occur, it could adversely affect the engine or vehicle performance. These items should be inspected if a malfunction is observed or suspected.

Traction Power Inverter Module (TPIM) Cooling System

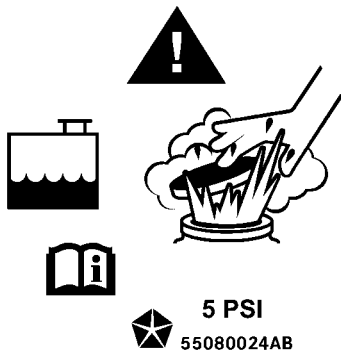
This cooling system is completely separate from the engine cooling system and is designed to remove heat away from the TPIM.

Traction Power Inverter Module (TPIM) Cooling System – Coolant Level Check

Check the TPIM coolant (antifreeze) protection every 12 months (before the onset of freezing weather, where applicable). If coolant is dirty or rusty in appearance, the system should be drained, flushed and refilled with fresh coolant.

Check the coolant bottle tubing for brittle rubber, cracking, tears, cuts and tightness of the connection at the bottle and radiator. Inspect the entire system for leaks.

NOTE: DO NOT REMOVE THE COOLANT PRESSURE CAP WHEN THE COOLING SYSTEM IS HOT.



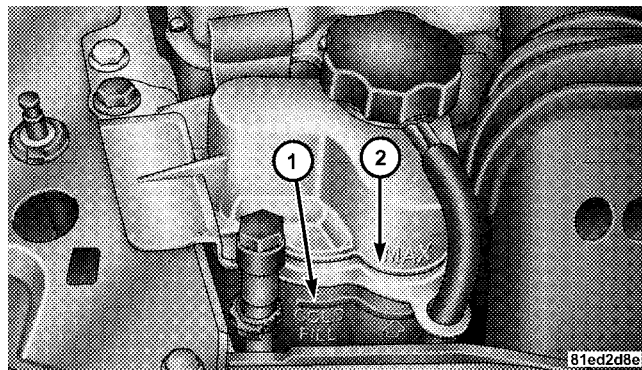
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WARNING!

- The warning graphic that appears on the cooling system pressure cap is a safety precaution for “DO NOT OPEN HOT”. Never add coolant when the engine is overheated. Do not loosen or remove the cap to cool an overheated engine. Heat causes pressure to build up in the cooling system. To prevent scalding or injury, do not remove the pressure cap while the system is hot or under pressure.
- Do not use a pressure cap other than the one specified for your vehicle. Personal injury or engine damage may result.

Maintain coolant concentration at a minimum of 50% Mopar® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology) and distilled/deionized water for proper corrosion protection.

Check the coolant level with the engine off. If the coolant level is below the Cold Fill mark, add coolant until it reaches the MAX level mark.



TPIM Coolant Reservoir

TPIM Cooling System — Drain, Flush and Refill

At the intervals shown on the “Maintenance Schedules”, the system should be drained, flushed and refilled.

If the solution is dirty or contains a considerable amount of sediment, clean and flush with a reliable cooling system cleaner. Follow with a thorough rinsing to remove all deposits and chemicals. Properly dispose of old antifreeze solution.

Selection Of Coolant

Use only the manufacturer’s recommended coolant. Refer to “Fluids, Lubricants, and Genuine Parts” for correct coolant type.

CAUTION!

- **Mixing of coolants other than specified HOAT TPIM coolants, may result in engine damage and may decrease corrosion protection. If a non-HOAT coolant is introduced into the cooling system in an emergency, it should be replaced with the specified coolant as soon as possible.**
- **Do not use plain water alone or alcohol-base engine coolant (antifreeze) products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the TPIM coolant and may plug the TPIM cooler.**
- **This vehicle has not been designed for use with Propylene Glycol based coolants. Use of Propylene Glycol based coolants is not recommended.**

Adding Coolant

Your vehicle has been built with an improved TPIM coolant that allows extended maintenance intervals. This coolant can be used up to 5 Years or 102,000 miles (170 000 km) before replacement. To prevent reducing this extended maintenance period, it is important that you use the same coolant throughout the life of your vehicle.

Please review these recommendations for using Hybrid Organic Additive Technology (HOAT) coolant. When adding coolant:

- The manufacturer recommends using Mopar® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology)
- Mix a minimum solution of 50% HOAT engine coolant and distilled water. Use higher concentrations (not to exceed 70%) if temperatures below -34°F (-37°C) are anticipated.

- Use only high purity water such as distilled or deionized water when mixing the water/TPIM coolant solution. The use of lower quality water will reduce the amount of corrosion protection in the engine cooling system.

Please note that it is the owner's responsibility to maintain the proper level of protection against freezing according to the temperatures occurring in the area where the vehicle is operated.

NOTE: Mixing coolant types will decrease the life of the TPIM coolant and will require more frequent coolant changes.

TPIM Cooling System Pressure Cap

The cap must be fully tightened to prevent loss of coolant.

The cap should be inspected and cleaned if there is any accumulation of foreign material on the sealing surfaces.

Disposal of Used TPIM Coolant

Used ethylene glycol based TPIM coolant is a regulated substance requiring proper disposal. Check with your local authorities to determine the disposal rules for your community. To prevent ingestion by animals or children do not store ethylene glycol based TPIM coolant in open containers or allow it to remain in puddles on the ground. If ingested by a child, contact a physician immediately. Clean up any ground spills immediately.

TPIM Coolant Level

The TPIM coolant bottle provides a quick visual method for determining that the coolant level is adequate. With the engine cold, the level of the coolant in the coolant recovery bottle should be between the ranges indicated on the bottle.

When additional coolant is needed to maintain the proper level, it should be added to the coolant bottle. Do not overfill.

Points to Remember

If an examination of your engine compartment shows no evidence of TPIM cooler or hose leaks, the vehicle may be safely driven.

- Do not overfill the coolant recovery bottle.
- Check coolant freeze point in the coolant recovery bottle. If antifreeze needs to be added, contents of coolant recovery bottle must also be protected against freezing.
- If frequent coolant additions are required, or if the level in the coolant recovery bottle does not drop when the engine cools, the cooling system should be pressure tested for leaks.
- Maintain coolant concentration at 50% HOAT engine coolant (minimum) and distilled/deionized water for proper corrosion protection of your engine which contains aluminum components.

- Make sure that the TPIM cooler and coolant recovery bottle overflow hoses are not kinked or obstructed.
- Keep the front of the TPIM cooler clean. If your vehicle is equipped with air conditioning, keep the front of the condenser clean, also.

Automatic Transmission

Fluid Level Check

NOTE: Your vehicle has a capped transmission fill tube. It is sealed and should not be tampered with. Your authorized dealer has the proper tools to ensure that the fluid level is set properly.

Automatic Transmission Fluid And Filter Change

Follow the “Maintenance Schedule” for recommended transmission fluid and filter change intervals.

Selection of Lubricant

It is important that the proper lubricant is used in the transmission to assure optimum transmission performance. Use only manufacturer’s recommended transmission fluid; refer to “Fluids, Lubricants and Genuine Parts” for correct fluid type. It is important that the transmission fluid be maintained at the prescribed level using the recommended fluid.

Special Additives

Automatic Transmission Fluid is an engineered product and its performance may be impaired by supplemental additives. Therefore, do not add any fluid additives to the transmission. The only exception to this policy is the use of special dyes to aid in detecting fluid leaks. In addition, avoid using transmission sealers as they may adversely affect seals.

CAUTION!

Using a transmission fluid other than the manufacturer's recommended fluid may cause deterioration in transmission shift quality and/or torque converter shudder. Using a transmission fluid other than the manufacturer's recommended fluid will result in more frequent fluid and filter changes. Refer to **Fluids, Lubricants and Genuine Parts** for correct fluid type.

Transfer Case

Inspect the transfer case for fluid leaks. If a fluid leak is evident the transfer case fluid level may be low. Have the transfer case serviced immediately.

CAUTION!

Damage may result from operation of the vehicle with low transfer case fluid.

Drain And Refill

Follow the "Maintenance Schedule" for recommended transfer case fluid change intervals.

Lubricant Selection

Refer to "Fluids, Lubricants and Genuine Parts" for correct fluid type.

Axles

Refer to "Fluids, Lubricants and Genuine Parts" for correct fluid type.

Drain And Refill

Follow the "Maintenance Schedule" for recommended axle fluid change intervals.

NOTE: The presence of water in the gear lubricant will result in corrosion and possible failure of differential components. Operation of the vehicle in water, as may be encountered in some off-highway types of service, will require draining and refilling the axle to avoid damage.

Rear Axle

Rear Axle fluid level should be 1 in (25 mm) +/- 1/4 in (6 mm) below the fill hole. The total lubricant volume is 64 oz (1.8 L).

Front Axle

Front axle fluid level should be 3/4 in (20 mm) +/- 1/4 in (6 mm) below the level of the fill hole. The total lubricant volume is 55 oz (1.6 L).

Appearance Care and Protection From Corrosion

Washing

- Wash your vehicle regularly. Always wash your vehicle in the shade using a mild car wash soap, and rinse the panels completely with clear water.
- If insects, tar or other similar deposits have accumulated on your vehicle, wash it as soon as possible.
- Use Mopar® Auto Polish to remove road film and stains and to polish your vehicle. Take care never to scratch the paint.
- Avoid using abrasive compounds and power buffing that may diminish the gloss or thin out the paint finish.

CAUTION!

Do not use abrasive or strong cleaning materials such as steel wool or scouring powder, which will scratch metal and painted surfaces.

NOTE: Your Hybrid vehicle can be run through typical commercial car wash facilities. There are some simple precautions that you should keep in mind.

- When entering an automatic/conveyor style car wash facility, it is important that the driver follow the attendant's or posted instructions and that your Hybrid vehicle's automatic transmission shift lever is shifted to NEUTRAL when instructed.
- A Hybrid vehicle that is in DRIVE with the "READY" light illuminated and gas engine stopped, is NOT a substitute for the NEUTRAL position.

CAUTION!

Car wash equipment damage, vehicle damage or a potential accident event could result if the car wash facility instructions for PARK, NEUTRAL, DRIVE and REVERSE are not followed.

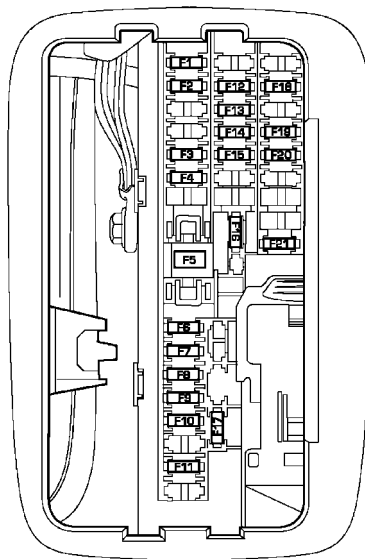
FUSE BLOCK**CAUTION!**

When replacing a blown fuse, it is important to use only a fuse having the correct amperage rating. The use of a fuse with a rating other than indicated may result in a dangerous electrical system overload. If a properly rated fuse continues to blow, it suggests a problem in the circuit that must be corrected.

NOTE: If you are leaving your vehicle dormant for longer than 21 days you may want to take steps to protect your battery. You may do this by disconnecting the battery or by disconnecting the two ignition-off draw (I.O.D.) fuses located in the auxiliary Power Distribution Center (PDC) in the engine compartment. The I.O.D. cavities include a snap-in retainer that allows the fuse to be disconnected without removing it from the fuse block. Pressing the I.O.D. fuse back into the cavity reconnects it.

Fuses (Interior)

The fuse block contains blade-type mini-fuses, relays, and circuit breakers for high-current circuits. It is located in the left kick panel. It is accessible through a snap-in cover.



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Interior Fuse Location

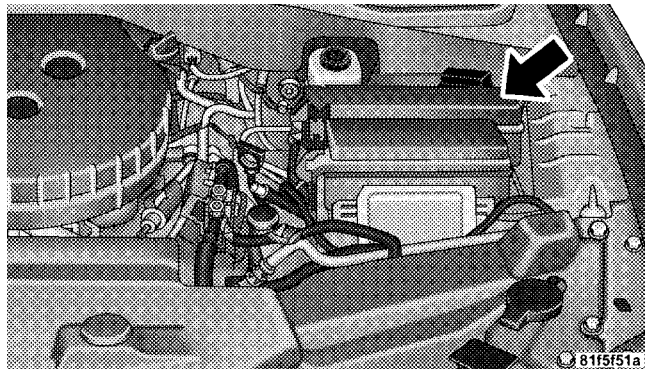
Cavity	Mini-Fuse/Color	Description
F1	15 Amp Blue	Mod_Clock; Analog/ Mod_Cluster; Illumination
F 2	10 Amp Red	Sunroof Power Feed
F3	10 Amp Red	HEV Assy Trans/DTCM/ ESP/ PCM/ TPIM/Trans Pump Controller/ HVAC AUX Pump/Power Steering Pump/ Fuel Pump Relay

F4	10 Amp Red	Sw_Pwr_Mirror/ Mod_Window_ FT_LT/Mod_ Window_FT_RT
F5	(2) 10 Amp Red	Airbags (two Fuses in Yellow Holder)
F6	2 Amp Clear	Low Current Ignition Switch
F7	25 Amp Natural	Radio Battery Feed
F8	10 Amp Red	Humidity Sensor/IR_AZC Driver Sensor/ Inside Rear View Mirror/Driver Heated Seat/ Passenger Heated Seat

F9	10 Amp Red	Module Video Screen
F10	Spare	Spare
F11	10 Amp Red	Heated Mirrors
F12	20 Amp Yellow	Cluster Battery Feed, Door Locks
F13	10 Amp Red	Rear HVAC Control Head/ Rear HVAC Relay/EBL Relay
F14	10 Amp Red	Clockspring/ Stop Lamp Switch Relay/ TPMS Transponder

F15	15 Amp Blue	Compass/EVIC Module/ Wireless_SKREEM VTA/HEV Diagnostic Port
F16	20 Amp Yellow	Reconfigurable Power Outlets
F17	20 Amp Yellow	Rear Park Assist
F18	20 Amp Yellow	Cigar Lighter Ignition
F19	Spare Fuse	Spare Fuse
F20	15 Amp Blue	Heating & Air Conditioning w/ATC Only Battery Feed
F21	25 Amp Natural	Amplifier Battery Feed

Fuses (Power Distribution Center)



Power Distribution Center

Your vehicle is equipped with an electrical power distribution center located in the left side of the engine compartment.

This center contains cartridge fuses, mini-fuses and relays. A description of each fuse and component may be

stamped on the inside cover, otherwise the cavity number of each fuse is stamped on the inside cover that corresponds to the following chart. These fuses and relays can be obtained from your authorized dealer.

Cavity	Cartridge Fuse/Relay	Mini-Fuse	Description
1	50 Amp Red		Spare
2	30 Amp Pink		Front Wiper
3	40 Amp Green		Brake Battery
4	50 Amp Red		Mini Fuses Section C
5	40 Amp Green		Power Seats
6	30 Amp Pink		Run Remote Relay Feed

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
7	40 Amp Green		Blower Motor Relay Feed
8	40 Amp Green		JB Feed Acc Delay
9	30 Amp Pink		Drivetrain Control Module
10	30 Amp Pink		ASD
11	40 Amp Green		Power Liftgate (If Equipped)
12	40 Amp Green		EBL/Power Outlet
13	30 Amp Pink		JB Feed Rear Blower
14	40 Amp Green		ESP Pump

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
15	60 Amp Yellow		JB Feed
16		Spare	Spare
17		10 Amp Red	TPIM Pump
18		20 Amp Yellow	Fuel Pump
19		20 Amp Yellow	HGM
20		25 Amp Clear	115V Power Inverter
21		30 Amp Green	RSB Batt
22		20 Amp Yellow	Next Generation Controller (NGC) Batt

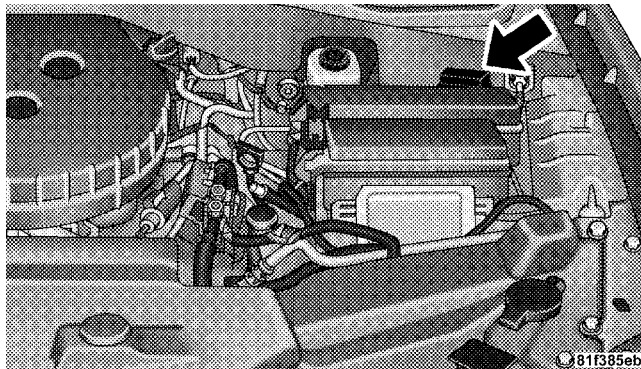
Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
23		20 Amp Yellow	Trailer Tow
24		Spare	Spare
25		15 Amp Blue	Stop Lamp Switch
26		Spare	Spare
27		20 Amp Yellow	Run/Start Relay Feed
28		Spare	
29	Micro-Relay		Run Start
30	Micro-Relay		Run Remote
31	Micro-Relay		Spare

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
32	Micro-Relay		Fuel Pump-2
33	Micro-Relay		Stop Lamp Switch
34	Micro-Relay		Spare
35	Micro-Relay		Fuel Pump Rly
36	Spare		
37	Spare		
38		20 Amp Yellow	BPCM Fan
39		10 Amp Red	BPCM Logic

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
40		20 Amp Yellow	TEHCM
41		10 Amp Red	TPIM (7\56)
42		10 Amp Red	TPIM (6\56)
43		10 Amp Red	HVAC Pump
44	Mini-Relay		Blower Motor
45	Mini-Relay		ASD

Fuses (Power Distribution Center 2)

Your vehicle is equipped with a second electrical power distribution center located in the left side of the engine compartment.



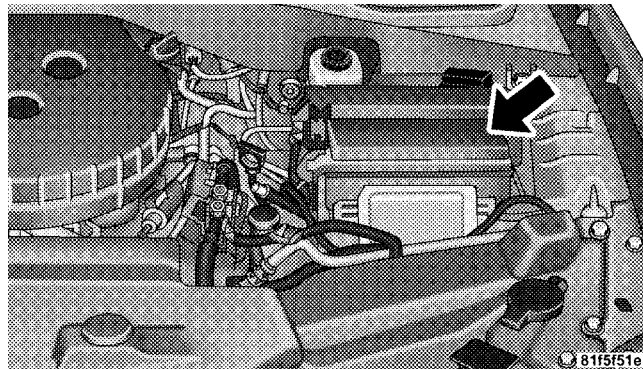
Power Distribution Center -2

This center contains maxi fuses and a relay. A description of each fuse and component may be stamped on the

inside cover, otherwise the cavity number of each fuse is stamped on the inside cover that corresponds to the following chart. These fuses and relays can be obtained from your authorized dealer.

Cavity	Cartridge Fuse/ Relay	Maxi-Fuse	Description
1	Solid State Relay		Electric Vacuum Pump
2		40 Amp Orange	Tran Aux Pump (TPCM)
3		40 Amp Orange	Electric Vacuum Pump
4		80 Amp Clear	Electric Hyd. Power Steering

Fuses (Integrated Power Module)



Integrated Power Module

An integrated power module is located in the left side of the engine compartment. This center contains cartridge fuses, mini-fuses and relays. A description of each fuse and component may be stamped on the inside cover,

otherwise the cavity number of each fuse is stamped on the inside cover that corresponds to the following chart.

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
1	Relay		Wiper On/Off Rly
2	Relay		Wiper Hi/Lo Rly
3	Relay		Horn Rly
4	Relay		Rear Wiper Rly
5	Relay		Lt Trailer-Tow Stop/ Turn Rly
6	Relay		Rt Trailer-Tow Stop/ Turn Rly
7	Relay		Park Lamps Rly
8		10 Amp Red	Lt Park Lamps
9		10 Amp Red	Trailer-Tow Park Lamps

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
10		10 Amp Red	Rt Park Lamps
11	Relay		Radiator Fan Hi Rly
12		20 Amp Yellow	Front Control Module (FCM) Batt #4
13		20 Amp Yellow	Front Control Module (FCM) Batt #2
14		Spare	Spare
15		20 Amp Yellow	Ft Fog Lamps
16		20 Amp Yellow	Horn
17		20 Amp Yellow	Rear Wiper

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
18		20 Amp Yellow	Front Control Module (FCM) Batt #1
19		20 Amp Yellow	Lt Trailer-Tow Stop/ Turn
20		20 Amp Yellow	Front Control Module (FCM) Batt #3
21		20 Amp Yellow	Rt Trailer-Tow Stop/ Turn
22	30 Amp Pink		Front Control Module (FCM) BATT # 5
23	40 Amp Green		Radiator Fan

Cavity	Cartridge Fuse/ Relay	Mini-Fuse	Description
24	Relay		Radiator Fan Lo Rly
25	Relay		Ft Fog Lamps Rly
26	Relay		Adjustable Pedal Rly
27		30 Amp Green	Ignition Off Draw (IOD) #1
28		30 Amp Green	Ignition Off Draw (IOD) #2
29			Spare
30			Spare

FLUIDS AND CAPACITIES

	U.S.	Metric
Fuel		
87 Octane	27 gal	102 L
Engine Oil (with filter)		
SAE 5W-20, API Certified	7 qts	6.6 L
Cooling System (includes 2.1 Qts./2 L for coolant bottle)		
5.7L without Rear Heat (Mopar® Antifreeze/Coolant 5 Year/ 100,000 Mile Formula)	NA	NA
5.7L with Rear Heat (Mopar® Antifreeze/Coolant 5 Year/ 100,000 Mile Formula)	16.6 qts	15.8 L
TPIM Coolant System	2.3 qts	2.2 L

NOTE: All fluid capacities are approximate.

FLUIDS, LUBRICANTS AND GENUINE PARTS**Engine**

Component	Fluids, Lubricants and Genuine Parts
Engine Coolant	Mopar® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology)
Engine Oil Filter	Mopar® Engine Oil Filter, P/N 04884899AB or equivalent.
Spark Plugs	PLZFR5B—13EG (Gap 0.050 in [1.3 mm])
Fuel Selection	87 Octane

Chassis

Component	Fluids, Lubricants and Genuine Parts
Automatic Transmission	Dexron® VI Automatic Transmission Fluid
Transfer Case	Mopar® ATF+4, Automatic Transmission Fluid.
Front Axle	SAE 75W-90 Multipurpose Type, GL-5 Gear Lubricant or equivalent.
Rear Axle	SAE 75W-90 Multipurpose Type, GL-5 Gear Lubricant or equivalent.
Brake Master Cylinder	Mopar® DOT 3 and SAE J1703 should be used or equivalent. If DOT 3 brake fluid is not available, then DOT 4 is acceptable. Use only recommended brake fluids.
Power Steering Reservoir	Pentosin CHF-11S Power Steering Fluid.

MAINTENANCE SCHEDULES

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MAINTENANCE SCHEDULE

The oil change indicator system will remind you that it is time to take your vehicle in for scheduled maintenance.

On Electronic Vehicle Information Center (EVIC) equipped vehicle's "Oil Change Required" will be displayed in the EVIC and a single chime will sound, indicating that an oil change is necessary.

On non-EVIC equipped vehicle's "Change Oil" will flash in the instrument cluster odometer and a single chime will sound, indicating that an oil change is necessary.

Based on engine operation conditions the oil change indicator message will illuminate, this means that service is required for your vehicle. Have your vehicle serviced as soon as possible, within the next 500 mi (805 km).

NOTE:

- The oil change indicator message will not monitor the time since the last oil change. Change your vehicle's

oil if it has been 6 months since your last oil change even if the oil change indicator message is NOT illuminated.

- Change your engine oil more often if you drive your vehicle off-road for an extended period of time.
- Under no circumstances should oil change intervals exceed 6,000 mi (10 000 km) or 6 months, whichever comes first.

Your authorized dealer will reset the oil change indicator message after completing the scheduled oil change. If this scheduled oil change is performed by someone other than your authorized dealer the message can be reset by referring to the steps described under "Oil Change Required" in "System Status (EVIC Displays)" of the EVIC section in this manual or under "Odometer/Trip Odometer" in the "Instrument Cluster Descriptions" section of this manual.

At Each Stop for Fuel

- Check the engine oil level about five minutes after a fully warmed engine is shut off. Checking the oil level while the vehicle is on level ground will improve the accuracy of the oil level reading. Add oil only when the level is at or below the ADD or MIN mark.
- Check the windshield washer solvent and add if required.

Once a Month

- Check tire pressure and look for unusual wear or damage.
- Check the fluid levels of coolant reservoir, brake master cylinder, add as needed.
- Check all lights and other electrical items for correct operation.

At Each Oil Change

- Change the engine oil filter.
- Inspect the brake hoses and lines.

CAUTION!

Failure to perform the required maintenance items may result in damage to the vehicle.

Required Maintenance Intervals

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
Change the engine oil and engine oil filter.	6,000	10 000	6
Rotate tires.	6,000	10 000	6
If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter; replace if necessary.	12,000	20 000	12
Inspect the brake linings; replace if necessary.	12,000	20 000	12
Inspect the front and rear axle fluid, change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.	18,000	30 000	18
Inspect the CV joints. Perform the first inspection at 12,000 mi (20 000 km) or 12 months.	24,000	40 000	24
Inspect exhaust system. Perform the first inspection at 12,000 mi (20 000 km) or 12 months.	24,000	40 000	24

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
Inspect the front suspension, tie rod ends and boot seals; replace if necessary.	24,000	40 000	24
Replace the engine air cleaner filter.	30,000	50 000	30
Inspect the transfer case fluid.	30,000	50 000	30
Change the automatic transmission fluid & main sump filter, if using your vehicle for any of the following: police, taxi, fleet, or frequent trailer towing.	60,000	100 000	60
Change the transfer case fluid if using your vehicle for any of the following: police, taxi, fleet, off-road or frequent trailer towing.	60,000	100 000	60
Inspect and replace PCV valve if necessary. †	90,000	150 000	90
Replace the spark plugs.	102,000	170 000	102
Flush and replace the engine coolant.	102,000	170 000	60
Flush and replace the Traction Power Inverter Module (TPIM) coolant.	102,000	170 000	60

122 MAINTENANCE SCHEDULES

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
Change the automatic transmission fluid and filter.	120,000	200 000	120
Change the transfer case fluid.	120,000	200 000	120
Replace water pump drive belt.	120,000	200 000	120

† This maintenance is recommended by the manufacturer to the owner, but is not required to maintain emissions warranty.

WARNING!

You can be badly injured working on or around a motor vehicle. Do only that service work for which you have the knowledge and the right equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.

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INSTALLATION OF RADIO TRANSMITTING EQUIPMENT

Special design considerations are incorporated into this vehicle's electronic system to provide immunity to radio frequency signals. Mobile two-way radios and telephone equipment must be installed properly by trained personnel. The following must be observed during installation.

The positive power connection should be made directly to the battery and fused as close to the battery as possible. The negative power connection should be made to body sheet metal adjacent to the negative battery connection. This connection should not be fused.

Antennas for two-way radios should be mounted on the roof or the rear area of the vehicle. Care should be used in mounting antennas with magnet bases. Magnets may affect the accuracy or operation of the compass on vehicles so equipped.

The antenna cable should be as short as practical and routed away from the vehicle wiring when possible. Use only fully shielded coaxial cable.

Carefully match the antenna and cable to the radio to ensure a low Standing Wave Ratio (SWR).

Mobile radio equipment with output power greater than normal may require special precautions.

All installations should be checked for possible interference between the communications equipment and the vehicle's electronic systems.



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