



RAM TRUCK

2009

OWNER'S MANUAL



DODGE

## 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.

Chrysler LLC reserves the right to make changes in design and specifications, and/or make additions to or improvements to its products without imposing any obligation upon itself to install them on products previously manufactured.

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# TABLE OF CONTENTS

SECTION		PAGE	
1	INTRODUCTION .....	3	1
2	THINGS TO KNOW BEFORE STARTING YOUR VEHICLE .....	9	2
3	UNDERSTANDING THE FEATURES OF YOUR VEHICLE .....	77	3
4	UNDERSTANDING YOUR INSTRUMENT PANEL .....	181	4
5	STARTING AND OPERATING .....	247	5
6	WHAT TO DO IN EMERGENCIES .....	405	6
7	MAINTAINING YOUR VEHICLE .....	425	7
8	MAINTENANCE SCHEDULES .....	481	8
9	IF YOU NEED CONSUMER ASSISTANCE .....	499	9
10	INDEX .....	509	10



# INTRODUCTION

## CONTENTS

---

■ Introduction . . . . .	4	■ Van Conversions/Campers . . . . .	6
■ How To Use This Manual . . . . .	4	■ Vehicle Identification Number . . . . .	7
■ Warnings And Cautions . . . . .	6	■ Vehicle Modifications/Alterations . . . . .	7

### INTRODUCTION

This Owner's Manual has been prepared with the assistance of service and engineering specialists to acquaint you with the operation and maintenance of your vehicle. It is supplemented by a Warranty Information Booklet and various customer-oriented documents. You are urged to read these publications carefully. Following the instructions and recommendations in this manual will help assure safe and enjoyable operation of your vehicle.

**NOTE:** After you read the manual, it should be stored in the vehicle for convenient referencing and remain with the vehicle when sold, so that the new owner will be aware of all safety warnings.



















































































When it comes to service, remember that your authorized dealer knows your vehicle best, has the factory-trained technicians and genuine Mopar® parts, and is interested in your satisfaction.

### HOW TO USE THIS MANUAL

Consult the Table of Contents to determine which section contains the information you desire.

The detailed index at the back of this Owner's Manual contains a complete listing of all subjects.

Consult the following table for a description of the symbols that may be used on your vehicle or throughout this Owner's Manual:

											
WATER IN FUEL	REAR WINDOW WIPER	WINDSHIELD WIPER INTERMITTENT	EXTERIOR BULB FAILURE	HIGH BEAM	TURN SIGNALS	UPPER AIR OUTLET	HEATED SEAT LOW	DOOR LOCK	ADJUSTABLE PEDALS	ELECTRONIC SPEED CONTROL	ELECTRONIC STABILITY PROGRAM / BRAKE ASSIST SYSTEM
											
FUEL	REAR WINDOW INTERMITTENT WIPER	WINDSHIELD WASHER	MASTER LIGHTING SWITCH	LOW BEAM	KEY ACTIVATE (POWER OUTLET)	UPPER AND LOWER AIR OUTLET	HEATED SEAT HIGH	WINDOW LIFT	TIRE PRESSURE MONITOR	HILL DESCENT CONTROL	BRAKE ASSIST SYSTEM BRAKE SYSTEM WARNING PARKING BRAKE
											
FUEL FILL SIDE	REAR WINDOW WASHER	WINDSHIELD WASHER FLUID LEVEL	DOME LIGHT	FRONT FOG LIGHT	HOOD RELEASE	LOWER AIR OUTLET	RECIRCULATION	CONVERTIBLE WINDOW DOWN	TRACTION CONTROL	AWD!	FAILURE OF ANTI-LOCK BRAKING SYSTEM
											
ENGINE OIL	REAR WINDOW DEFROST	WINDSHIELD ELECTRICALLY HEATED	PARK LIGHTS	REAR FOG LAMP	LIFTGATE RELEASE AND LIFTGATE OPEN	DEFROST AND LOWER AIR OUTLET	VENTILATING FAN	WINDOW LOCK	ELECTRONIC THROTTLE CONTROL	4WD!	BRAKE SYSTEM WARNING PARKING BRAKE
											
BATTERY CHARGING	HEATED MIRROR	WINDSHIELD DEFROST	INSTRUMENT PANEL ILLUMINATION	SEAT BELT	BLIND SPOT	TRUNK / DECK RELEASE	AIR CONDITIONING	CHILD SEAT TETHER ANCHOR	VOICE RECOGNITION BUTTON	WARNING	TOW / HAUL
											
GLOW PLUG	POWER STEERING FLUID	WINDSHIELD WIPER AND WASHER	SIDE AIRBAG	AIRBAG	SLIDING DOOR	EMERGENCY RELEASE HANDLE	LIGHTER	LOWER ANCHORS AND TETHER FOR CHILDREN (LATCH)	DISCONNECT™ BUTTON	HAZARD	FOUR WHEEL DRIVE LOW
											
MALFUNCTION INDICATOR LIGHT	TRANS OIL TEMP	ENGINE COOLANT TEMPERATURE	SRS AIRBAG	PASSENGER AIRBAG OFF	DOOR AJAR	CONVERTIBLE TOP DOWN	CONVERTIBLE TOP UP	HORN	SEE OWNER'S MANUAL ISO		

**WARNINGS AND CAUTIONS**

This Owner's Manual contains **WARNINGS** against operating procedures that could result in an accident or bodily injury. It also contains **CAUTIONS** against procedures that could result in damage to your vehicle. If you do not read this entire manual, you may miss important information. Observe all Warnings and Cautions.

**VAN CONVERSIONS/CAMPERS**

The Manufacturer's Warranty does not apply to body modifications or special equipment installed by van conversion/camper manufacturers/body builders. Refer to the Warranty information book, Section 2.1.C. Such equipment includes video monitors, VCRs, heaters, stoves, refrigerators, etc. For warranty coverage and service on these items, contact the applicable manufacturer.

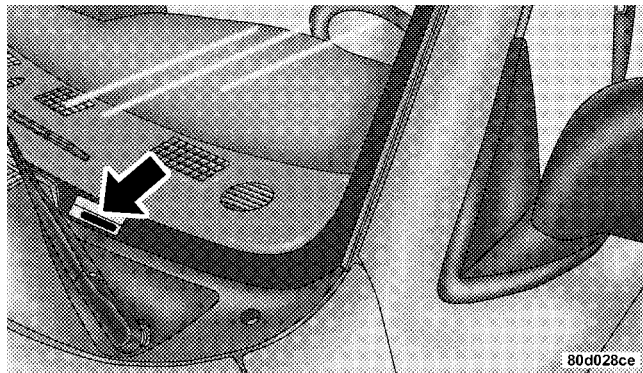
Operating instructions for the special equipment installed by the conversion/camper manufacturer should also be supplied with your vehicle. If these instructions are missing, please contact your authorized dealer for assistance in obtaining replacement documents from the applicable manufacturer.

For information on the Body Builders Guide refer to: [www.dodgebodybuilder.com](http://www.dodgebodybuilder.com). This website contains dimensional and technical specifications for your vehicle. It is intended for Second Stage Manufacturer's technical support. For service issues, contact your authorized dealer.



## VEHICLE IDENTIFICATION NUMBER

The Vehicle Identification Number (VIN) is found on the left front corner of the instrument panel, visible through the windshield. This number also appears on the Automobile Information Disclosure Label affixed to a window on your vehicle, the vehicle registration and title.



Vehicle Identification Number

**NOTE:** It is illegal to remove the VIN.

## VEHICLE MODIFICATIONS/ALTERATIONS

### WARNING!

Any modifications or alterations to this vehicle could seriously affect its roadworthiness and safety and may lead to an accident resulting in serious injury or death.



# THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

## CONTENTS

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■ A Word About Your Keys . . . . .	12	■ Sentry Key® . . . . .	15
□ Ignition Key Removal . . . . .	12	□ Replacement Keys . . . . .	16
□ Locking Doors With A Key . . . . .	14	□ Customer Key Programming . . . . .	17
■ Steering Wheel Lock — If Equipped . . . . .	14	□ General Information . . . . .	18
□ To Manually Lock The Steering Wheel . . . . .	14	■ Vehicle Security Alarm — If Equipped . . . . .	18
□ To Release The Steering Wheel Lock . . . . .	14	□ Rearming Of The System . . . . .	18
□ Automatic Transmission Ignition Interlock System . . . . .	14	□ To Set The Alarm . . . . .	18
		□ To Disarm The System . . . . .	19
		■ Illuminated Entry System — If Equipped . . . . .	20

## 10 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

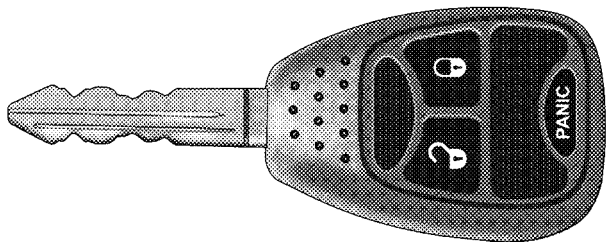
- Remote Keyless Entry (RKE) — If Equipped . . . 20
  - To Unlock The Doors . . . . . 21
  - To Lock The Doors . . . . . 21
  - Using The Panic Alarm . . . . . 22
  - Programming Additional RKE Transmitters . . . 23
  - General Information . . . . . 23
  - RKE Transmitter Battery Service . . . . . 24
- Remote Starting System — If Equipped . . . . . 25
  - How To Use Remote Start . . . . . 25
- Door Locks . . . . . 27
  - Manual Door Locks . . . . . 27
  - Power Door Locks — If Equipped . . . . . 28
  - Child Protection Door Lock . . . . . 30
- Windows . . . . . 32
  - Power Windows—If Equipped . . . . . 32
  - Wind Buffeting . . . . . 33
- Occupant Restraints . . . . . 34
  - Lap/Shoulder Belts . . . . . 35
  - Adjustable Upper Shoulder Belt Anchorage . . . 42
  - Automatic Locking Retractors (ALR) Mode – If Equipped . . . . . 43
  - Center Lap Belts . . . . . 44
  - Seat Belt Pretensioners — If Equipped . . . . . 44
  - Enhanced Seat Belt Use Reminder System (BeltAlert®) . . . . . 45
  - Seat Belts And Pregnant Women . . . . . 46
  - Seat Belt Extender . . . . . 46

- Driver And Right Front Passenger Supplemental Restraint System (SRS) — Airbags . . . . . 47
- Event Data Recorder (EDR) . . . . . 58
- Child Restraints . . . . . 60
- Engine Break-In Recommendations . . . . . 73

- Safety Tips . . . . . 74
  - Transporting Passengers . . . . . 74
  - Exhaust Gas . . . . . 74
  - Safety Checks You Should Make Inside The Vehicle . . . . . 75
  - Periodic Safety Checks You Should Make Outside The Vehicle . . . . . 76

## A WORD ABOUT YOUR KEYS

The authorized dealer that sold you your vehicle has the key code numbers for your vehicle locks. These numbers can be used to order duplicate keys from your authorized dealer. Ask your authorized dealer for these numbers and keep them in a safe place.



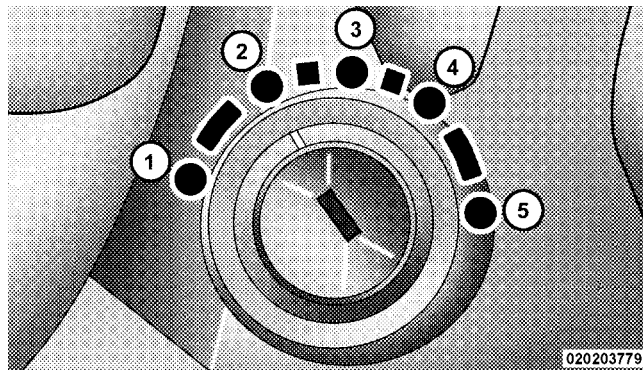
Ignition Key

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## Ignition Key Removal

### Automatic Transmission

Place the shift lever in PARK. Turn the ignition switch to the LOCK position, and remove the key.



Ignition Switch Positions

- |                     |            |
|---------------------|------------|
| 1 — ACC (ACCESSORY) | 4 — ON/RUN |
| 2 — LOCK            | 5 — START  |
| 3 — OFF             |            |

**NOTE:**

- If you try to remove the key before you place the shift lever in PARK, the key may become trapped temporarily in the ignition cylinder. If this occurs, rotate the key to the right slightly, then remove the key as described. If a malfunction occurs, the system will trap the key in the ignition cylinder to warn you that this safety feature is inoperable. The engine can be started and stopped but the key cannot be removed until you obtain service.
- The power window switches, radio, power sunroof (if equipped), and power outlets will remain active for 10 minutes after the ignition switch is turned OFF. Opening either front door will cancel this feature.

**WARNING!**

**Never leave children alone in a vehicle. Leaving unattended children in a vehicle is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the key in the ignition. A child could operate power windows, other controls, or move the vehicle.**

**CAUTION!**

**An unlocked car is an invitation to thieves. Always remove key from the ignition and lock all doors when leaving the vehicle unattended.**

### **Locking Doors With A Key**

You can insert the key with either side up. To lock the door, turn the key rearward. To unlock the door, turn the key forward. For door lock lubrication, see “Body Lubrication” in Section 7 of this manual.

### **STEERING WHEEL LOCK — IF EQUIPPED**

Your vehicle may be equipped with a passive steering wheel lock. This lock prevents steering the vehicle without the ignition key. If the steering wheel is moved approximately a half turn in either direction and the key is not in the ignition switch, the steering wheel will lock.

#### **To Manually Lock the Steering Wheel**

With the engine running, turn the steering wheel upside down, turn off the engine and remove the key. Turn the steering wheel slightly in either direction until the lock engages.

### **To Release the Steering Wheel Lock**

Insert the key in the ignition switch and start the engine. If the key is difficult to turn, move the wheel slightly to the right or left to disengage the lock.

**NOTE:** If you turned the wheel to the right to engage the lock, you must turn the wheel slightly to the right to disengage it. If you turned the wheel to the left to engage the lock, turn the wheel slightly to the left to disengage it.

### **Automatic Transmission Ignition Interlock System**

This system prevents the key from being removed unless the shift lever is in PARK. It also prevents shifting out of PARK unless the key is in the ON positions, and the brake pedal is depressed.



**SENTRY KEY®**

The Sentry Key® Immobilizer System prevents unauthorized vehicle operation by disabling the engine. The system does not need to be armed or activated. Operation is automatic, regardless of whether the vehicle is locked or unlocked.

The system uses ignition keys that have an embedded electronic chip (transponder) to prevent unauthorized vehicle operation. Therefore, only keys that are programmed to the vehicle can be used to start and operate the vehicle. The system will shut the engine off in two seconds if someone uses an invalid key to try to start the engine.

**NOTE:** A key that has not been programmed is also considered an invalid key, even if it is cut to fit the ignition switch lock cylinder for that vehicle.

During normal operation, after turning on the ignition switch, the Vehicle Security Light will turn on for three

seconds for a bulb check. If the light remains on after the bulb check, it indicates that there is a problem with the electronics. In addition, if the Vehicle Security Light begins to flash after the bulb check, it indicates that someone used an invalid key to try to start the engine. Either of these conditions will result in the engine being shut off after two seconds.

If the Vehicle Security Light turns on during normal vehicle operation (vehicle running for longer than 10 seconds), it indicates that there is a fault in the electronics. Should this occur, have the vehicle serviced as soon as possible.

**NOTE:**

- The Sentry Key® Immobilizer System is not compatible with some aftermarket remote starting systems. Use of these systems may result in vehicle starting problems and loss of security protection.

- Exxon/Mobil Speedpass™, additional Sentry Keys®, or any other transponder-equipped components on the same key chain will **not** cause a key-related (transponder) fault unless the additional part is **physically held against the ignition key** being used when starting the vehicle. Cell phones, pagers, or other Radio Frequency (RF) electronics will not cause interference with this system.

All of the keys provided with your new vehicle have been programmed to the vehicle electronics.

### Replacement Keys

**NOTE:** Only keys that are programmed to the vehicle electronics can be used to start and operate the vehicle. Once a Sentry Key® is programmed to a vehicle, it cannot be programmed to any other vehicle.

### CAUTION!

**Always remove the Sentry Keys® from the vehicle and lock all doors when leaving the vehicle unattended.**

At the time of purchase, the original owner is provided with a four-digit Personal Identification Number (PIN). Keep the PIN in a secure location. This number is required for authorized dealer replacement of keys. Duplication of keys may be performed at an authorized dealer or by following the customer key programming procedure. This procedure consists of programming a blank key to the vehicle electronics. A blank key is one that has never been programmed.

**NOTE:** When having the Sentry Key® Immobilizer System serviced, bring all vehicle keys with you to an authorized dealer.

## Customer Key Programming

If you have two valid Sentry Keys®, you can program new Sentry Keys® to the system by performing the following procedure:

1. Cut the additional Sentry Key® Transponder blank(s) to match the ignition switch lock cylinder key code.
2. Insert the first valid key into the ignition switch. Turn the ignition switch to the ON position for at least three seconds, but no longer than 15 seconds. Then, turn the ignition switch to the LOCK position and remove the first key.
3. Insert the second valid key into the ignition switch. Turn the ignition switch to the ON position within 15 seconds. After 10 seconds, a chime will sound. In addition, the Vehicle Security Light will begin to flash. Turn the ignition switch to the LOCK position and remove the second key.

4. Insert a blank Sentry Key® into the ignition switch. Turn the ignition switch to the ON position within 60 seconds. After 10 seconds, a single chime will sound. In addition, the Vehicle Security Light will stop flashing. To indicate that programming is complete, the Vehicle Security Light will turn on again for three seconds and then turn off.

The new Sentry Key® is programmed. **The Remote Keyless Entry (RKE) transmitter will also be programmed during this procedure.**

Repeat this procedure to program up to eight keys. If you do not have a programmed Sentry Key®, contact your authorized dealer for details.

**NOTE:** If a programmed key is lost, see your authorized dealer to have all remaining keys erased from the system's memory. This will prevent the lost key from starting your vehicle. The remaining keys must then be

reprogrammed. All vehicle keys must be taken to an authorized dealer at the time of service to be reprogrammed.

### **General Information**

The Sentry Key® system complies with FCC rules Part 15 and with RSS-210 of Industry Canada. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may be received, including interference that may cause undesired operation.

### **VEHICLE SECURITY ALARM — IF EQUIPPED**

This Vehicle Security Alarm monitors the vehicle doors and ignition for unauthorized operation. When the alarm is activated, the Vehicle Security Alarm provides both audible and visible signals. For the first three minutes the horn will sound and the headlights and Vehicle Security

Light will flash repeatedly. For an additional 15 minutes only, the headlights and Vehicle Security Light will flash. The engine will run only if a valid Sentry Key® is used to start the vehicle. Use of the Sentry Key® will disable the alarm.

### **Rearming of the System**

The Vehicle Security Alarm will rearm itself after the 15 additional minutes of headlights and Vehicle Security Light flashing, if the Vehicle Security Alarm has not been disabled. If the condition which initiated the alarm is still present, the Vehicle Security Alarm will ignore that condition and monitor the remaining doors and ignition.

### **To Set the Alarm**

The Vehicle Security Alarm will set when you use the power door locks, or use the Remote Keyless Entry (RKE) transmitter to lock the doors. After all the doors are locked and closed, the Vehicle Security Light in the instrument cluster will flash rapidly to signal that the

Vehicle Security Alarm is arming. The Vehicle Security Light in the instrument panel cluster will flash rapidly for about 16 seconds to indicate that the alarm is being set. After the alarm is set, the Vehicle Security Light will flash at a slower rate to indicate that the Vehicle Security Alarm is armed.

**NOTE:** If the Vehicle Security Light stays on continuously during vehicle operation, have the Vehicle Security Alarm checked by an authorized dealer.

### **To Disarm the System**

Use the RKE transmitter to unlock the door. If something has triggered the Vehicle Security Alarm in your absence, the horn will sound three times when you unlock the doors and the Vehicle Security Light will flash for 30 seconds. Check the vehicle for tampering.

The Vehicle Security Alarm will also disarm if the vehicle is started with a programmed Sentry Key®. If an unprogrammed Sentry Key® is used to start a vehicle, the engine will run for two seconds and then the Security Alarm will be initiated. To exit the alarming mode, press the RKE transmitter UNLOCK button, or start the vehicle with a programmed Sentry Key®.

The Vehicle Security Alarm is designed to protect your vehicle; however, you can create conditions where the Vehicle Security Alarm will arm unexpectedly. If you remain in the vehicle and lock the doors with the RKE transmitter, the alarm will sound when you pull the door handle to exit. The door will be locked, but the Vehicle Security Alarm will not arm.

**ILLUMINATED ENTRY SYSTEM — IF EQUIPPED**

The courtesy lights will turn on when you use the Remote Keyless Entry (RKE) transmitter or open the doors. This feature is only available if you have Remote Keyless Entry.

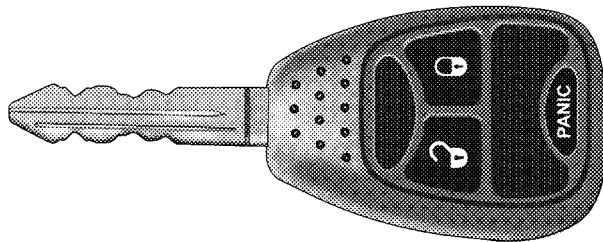
The lights will fade to off after about 30 seconds, or they will immediately fade to off once the ignition switch is turned ON.

**NOTE:**

- The front courtesy overhead console and door courtesy lights do not turn off if the dimmer control is in the interior lights on position (extreme top position).
- The Illuminated Entry system will not operate if the dimmer control is in the extreme downward position.

**REMOTE KEYLESS ENTRY (RKE) — IF EQUIPPED**

The system allows you to lock or unlock the doors from distances up to approximately 66 ft (20 m) using a Remote Keyless Entry (RKE) transmitter. The RKE transmitter does not need to be pointed at the vehicle to activate the system.



Three Button RKE Transmitter

### To Unlock the Doors

Press and release the UNLOCK button on the RKE transmitter once to unlock only the driver's door or twice to unlock all the doors. When the UNLOCK button is pressed, the illuminated entry will initiate, the parking lights will flash on twice and, if installed, the cargo lamp will turn on for 30 seconds.

The system can be programmed to unlock all the doors or the driver's door only upon the first UNLOCK button press by using the following procedure:

1. Perform this operation while standing outside the vehicle.
2. Press and hold the LOCK button on your RKE transmitter.
3. Continue to hold the LOCK button at least four seconds, but no longer than 10 seconds, then press and hold the UNLOCK button while still holding the LOCK button.

4. Release both buttons at the same time.
5. This will allow you to unlock all doors on the first press of the UNLOCK button.
6. To reactivate this feature, repeat the above steps.

### To Lock the Doors

Press and release the LOCK button on the RKE transmitter to lock all doors. If the ignition is OFF, when the doors are locked, the parking lights will flash on once and the horn will chirp once.

The Horn Chirp feature is activated when shipped from the assembly plant. If desired, this feature can be disabled by using the following procedure:

1. Perform this operation while standing outside the vehicle.
2. Press and hold the LOCK button on a programmed (i.e., functional) RKE transmitter.

3. Continue to hold the LOCK button, wait at least four seconds, but no longer than 10 seconds, then press and hold the PANIC button. Release both buttons at the same time.

4. To reactivate this feature, repeat the above steps.

This vehicle is shipped from the assembly plant with the park lamp flash feature activated. If desired, this feature can be disabled by using the following procedure:

1. Perform this operation while standing outside the vehicle.

2. Press and hold the UNLOCK button on a programmed (i.e., functional) RKE transmitter.

3. Continue to hold the UNLOCK button, wait at least four seconds, but no longer than 10 seconds, then press and hold the LOCK button. Release both buttons at the same time.

4. To reactivate this feature, repeat the above steps.

### Using the Panic Alarm

To activate the Panic Mode while the ignition is OFF, press and release the PANIC button on the RKE transmitter once. When the Panic Mode is activated, the interior lights will illuminate, the headlights and parking lights will flash, and the horn will sound.

To cancel the Panic Mode, press and release the PANIC button on the transmitter a second time, after five seconds. Panic Mode will automatically cancel after three minutes, or if the vehicle is started and exceeds 15 mph (24 km/h). During the Panic Mode, the door locks and RKE systems will function normally. Panic Mode will not disarm the Vehicle Security Alarm System on vehicles so equipped.



### Programming Additional RKE Transmitters

Refer to “Sentry Key® Programming” under “Sentry Key®” in this section.

If you do not have a programmed RKE transmitter, contact your authorized dealer for details.

### General Information

This device complies with part 15 of FCC rules and with RS-210 of Industry Canada. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received including interference that may cause undesired operation.

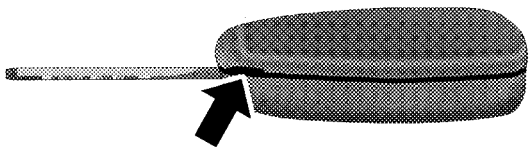
**NOTE:** Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

If your RKE transmitter fails to operate from a normal distance, check for these two conditions:

1. Weak battery in RKE transmitter. The expected life of the battery is from one to two years.
2. Closeness to a radio transmitter such as a radio station tower, airport transmitter, and some mobile or CB radios.

## RKE Transmitter Battery Service

1. With RKE transmitter buttons facing down, use a flat blade or dime to pry the two halves of the RKE transmitter apart. Make sure not to damage the rubber gasket during removal.



RKE Transmitter Battery Replacement

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2. Remove and replace the battery. When replacing the battery, match the + sign on battery to the + sign on the inside of the battery clip, located on back cover. Avoid touching the new battery with your fingers. Skin oils may cause battery deterioration. If you touch a battery, clean it with rubbing alcohol.

3. To reassemble the RKE transmitter case, snap the two halves of the case together. Make sure there is an even “gap” between the two halves. If equipped, install and tighten the screw until snug. Test the RKE transmitter operation.

### NOTE:

- Perchlorate Material – special handling may apply, see [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)
- The recommended replacement battery is CR2032.
- Do not touch the battery terminals that are on the back housing or the printed circuit board.

## REMOTE STARTING SYSTEM — IF EQUIPPED



This system uses the Remote Keyless Entry (RKE) transmitter to start the engine conveniently from outside the vehicle while still maintaining security. The system has a targeted range of 328 ft (100 m).

**NOTE:** The vehicle must be equipped with an automatic transmission to be equipped with Remote Start.

### How to Use Remote Start

All of the following conditions must be met before the engine will remote start:

- Shift lever in PARK
- Doors closed
- Hood closed
- Hazard switch off
- Brake switch inactive (brake pedal not pressed)

- Ignition key removed from ignition switch
- Battery at an acceptable charge level
- RKE PANIC button not pressed

### To Enter Remote Start



Press and release the REMOTE START button on the RKE transmitter twice, within five seconds. The parking lights will flash and the horn will chirp twice (if programmed). Then, the engine will start and the vehicle will remain in the Remote Start mode for a 15-minute cycle.

### NOTE:

- The park lamps will turn on and remain on during Remote Start mode.
- For security, power window and power sunroof operation (if equipped) are disabled when the vehicle is in the Remote Start mode.

- The engine can be started two consecutive times (two 15-minute cycles) with the RKE transmitter. However, the ignition switch must be cycled to the ON position before you can repeat the start sequence for a third cycle.

Remote start will also cancel if any of the following occur:

- The engine stalls or RPM exceeds 2500
- Any engine warning lamps come on
- The hood is opened
- The hazard switch is pressed
- The transmission is moved out of PARK
- The brake pedal is pressed

### **To Exit Remote Start Mode without Driving the Vehicle**

Press and release the REMOTE START button one time, or allow the engine to run for the entire 15-minute cycle.

**NOTE:** To avoid unintentional shut downs, the system will disable the one time press of the REMOTE START button for two seconds after receiving a valid Remote Start request.

### **To Exit Remote Start Mode and Drive the Vehicle**

Before the end of the 15-minute cycle, press and release the UNLOCK button on the RKE transmitter to unlock the doors and disarm the Vehicle Security Alarm (if equipped). Then, prior to the end of the 15-minute cycle, insert the key into the ignition switch and turn the switch to the ON position.

### **NOTE:**

- The ignition switch must be in the ON position in order to drive the vehicle.

## DOOR LOCKS

### Manual Door Locks

Front and rear doors may be locked by moving the lock plunger up or down.

All doors may be opened with the inside door handle without lifting the lock plunger. Doors locked before closing will remain locked when closed.

The ignition key will unlock all the locks on your vehicle.

### WARNING!

- For personal security and safety in the event of an accident, lock the vehicle doors when you drive as well as when you park and leave the vehicle.
- Never leave children alone in a vehicle. Leaving unattended children in a vehicle is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the key in the ignition. A child could operate power windows, other controls, or move the vehicle.

### Power Door Locks — If Equipped

A power door lock switch is on each front door trim panel. Use this switch to lock or unlock the doors.



**Power Door Lock Switch Location**

If you press the power door lock switch while the key is in the ignition, and any front door is open, the power

locks will not operate. This prevents you from accidentally locking your keys in the vehicle. Removing the key or closing the door will allow the locks to operate. A chime will sound if the key is in the ignition switch and a door is open, as a reminder to remove the key.

### Automatic Door Locks – If Equipped

If this feature is enabled, your door locks will lock automatically when the vehicle's speed exceeds 15 mph (24 km/h).

### Automatic Door Lock Programming

This feature is enabled when your vehicle is shipped from the assembly plant and can be disabled by using the following procedure:

1. Enter your vehicle and close all doors.
2. Fasten your seat belt. (Fastening the seat belt will cancel any chiming that may confuse you during this programming procedure.)

3. Place the key into the ignition.
4. Within 15 seconds, cycle the key from the LOCK position to the ON/RUN position a minimum of four times, ending in the ON/RUN position. **(Do not start the engine).**
5. Within 30 seconds, press the driver's door lock switch in the LOCK direction.
6. A single chime will be heard to indicate the feature has been disabled.
7. To reactivate this feature, repeat the above steps.
8. If a chime is not heard, program mode was canceled before the feature could be disabled. If necessary, repeat the above procedure.

### **Auto Unlock On Exit — If Equipped**

This feature unlocks all of the doors of the vehicle when any door is opened. This will occur only after the vehicle has been shifted into the PARK position after the vehicle has been driven (shifted out of PARK and all doors closed).

### **Auto Unlock On Exit Programming — If Equipped**

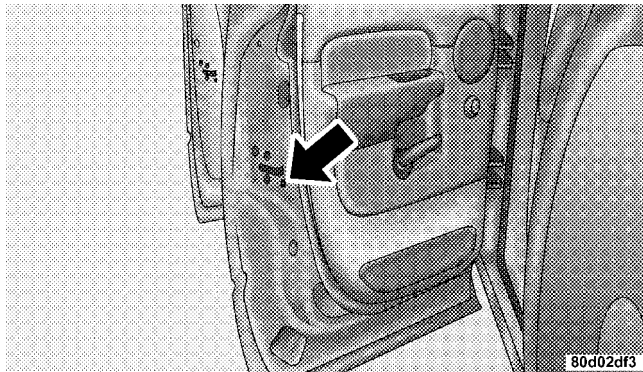
Customer programming sequence to enable or disable the Auto Unlock on Exit feature:

1. Enter your vehicle and close all doors.
2. Fasten your seat belt. (Fastening the seat belt will cancel any chimes that may be confusing during this programming procedure.)
3. Insert the key into the ignition.

4. Within 15 seconds, cycle the key from the LOCK position to the ON/RUN position a minimum of four times, ending in the ON/RUN position. **(Do not start the engine).**
5. Within 30 seconds, press the driver's door lock switch in the UNLOCK direction.
6. A single chime will sound to indicate the feature has been changed.
7. Repeat the above steps to alternate the availability of this feature.
8. If a chime is not heard, the program mode was canceled before the feature could be changed. If necessary, repeat the above procedure.

### Child Protection Door Lock

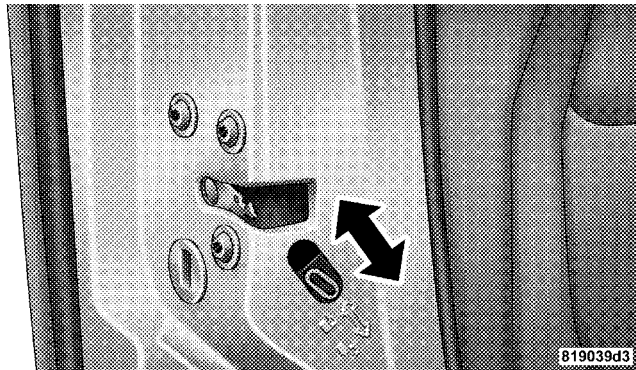
To provide a safer environment for children riding in the rear seat, the rear doors of your vehicle have the Child Protection Door Lock system.



Child Protection Door Lock Location



To use the system, open each rear door, slide the lever UP to engage the locks and DOWN to disengage the child protection door locks. When the system on a door is engaged, that door can only be opened by using the outside door handle even, if the inside door LOCK is in the UNLOCKED position.



Child Door Lock Control

### WARNING!

**Avoid trapping anyone in a vehicle in a collision. Remember that the rear doors can only be opened from the outside when the child protection locks are engaged.**

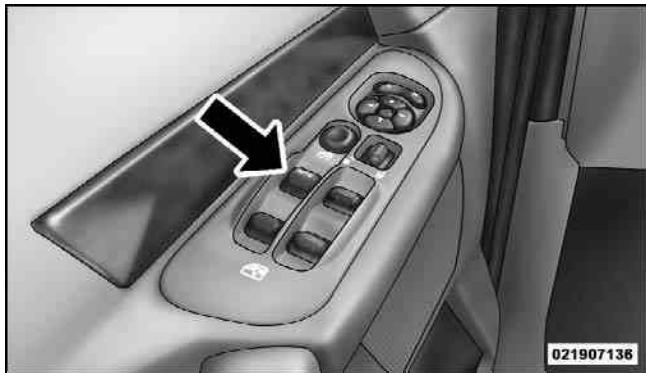
2

**NOTE:** After setting the Child Protection Door Lock system, always test the door from the inside to make certain it is in the desired position.

For emergency exit with the system engaged, move the door lock switch to the UNLOCK position, roll down the window and open the door with the outside door handle.

## WINDOWS

### Power Windows—If Equipped



Power Window Switches

The control on the left front door panel has Up/Down switches that give you fingertip control of all power windows. There is a single opening and closing switch on the front passenger door for passenger window control

and on the rear doors of Quad Cab® and Mega Cab® models. The windows will operate when the ignition switch is turned to the ON or ACC position, and for 10 minutes after the ignition is turned OFF or a front door is opened.

**NOTE:** The Power Accessory Delay feature will allow the power windows to operate for 10 minutes after the ignition is turned OFF.

### WARNING!

**Never leave children alone in a vehicle. Leaving unattended children in a vehicle is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the key in the ignition. A child could operate power windows, other controls, or move the vehicle.**

**Auto-Down (Driver's Side Only)**

The driver's window switch has an Auto-Down feature. Press the window switch past the detent, release, and the window will automatically go down.

**Window Lockout Switch (4-Door Models Only)**

The window lockout switch on the driver's door allows you to disable the window control on the other doors. To disable the window controls on the other doors, press the window LOCK button. To enable the window controls, press the window LOCK button again.



2

Window Lockout Switch

**Wind Buffeting**

Wind buffeting can be described as the perception of pressure on the ears or a helicopter-type sound in the ears. Your vehicle may exhibit wind buffeting with the windows down or partially open positions. This is a normal occurrence and can be minimized. If the buffeting

occurs with the rear windows open, open the front and rear windows together to minimize the buffeting.

### **OCCUPANT RESTRAINTS**

Some of the most important safety features in your vehicle are the restraint systems. These include the front and rear seat belts for the driver and all passengers, front airbags for both the driver and front passenger and if equipped, window bags for the driver and passengers seated next to a window. If you will be carrying children too small for adult-sized belts, your seat belts also can be used to hold infant and child restraint systems.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly, to keep you and your passengers as safe as possible.

### **WARNING!**

**In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.**

Buckle up even though you are an excellent driver, even on short trips. Someone on the road may be a poor driver and cause a collision that includes you. This can happen far away from home or on your own street.

Research has shown that seat belts save lives, and that they can reduce the seriousness of injuries in a collision. Some of the worst injuries happen when people are thrown from the vehicle. Seat belts reduce the possibility of ejection and the risk of injury caused by striking the inside of the vehicle. **Everyone in a motor vehicle should be belted at all times.**

## Lap/Shoulder Belts

All seating positions except the Quad Cab® front center seating position have combination lap/shoulder belts. The belt webbing retractor is designed to lock during very sudden stops or collisions. This feature allows the shoulder part of the belt to move freely with you under normal conditions. But in a collision, the belt will lock and reduce the risk of you striking the inside of the vehicle or being thrown out.

### WARNING!

- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.

*(Continued)*

### WARNING! (Continued)

- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.
- Wearing a seat belt incorrectly is dangerous. Seat belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision the best. Wearing your belt in the wrong place could make your injuries in a collision much worse. You might suffer internal injuries, or you could even slide out of part of the belt. Follow these instructions to wear your seat belt safely and to keep your passengers safe, too.

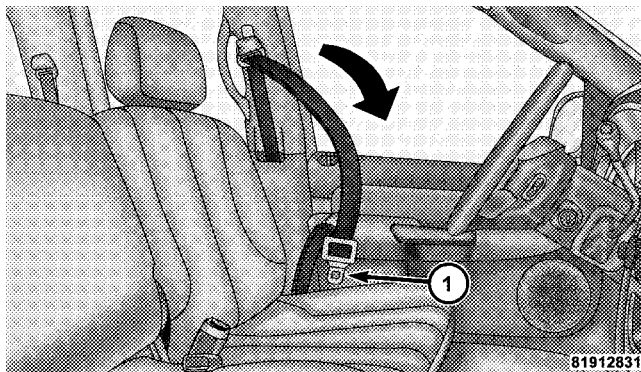
*(Continued)*

**WARNING! (Continued)**

- Two people should never be belted into a single seat belt. People belted together can crash into one another in an accident, hurting one another badly. Never use a lap/shoulder belt or a lap belt for more than one person, no matter what their size.

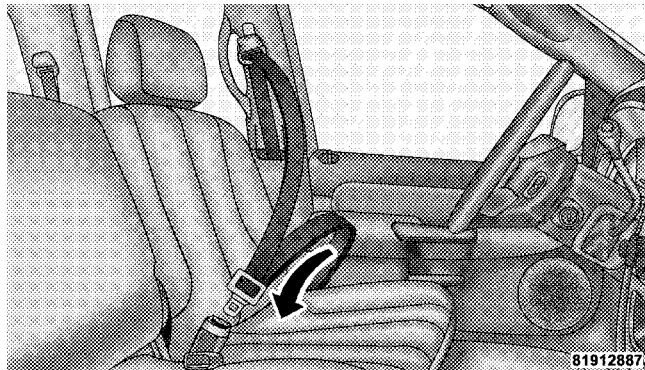
**Lap/Shoulder Belt Operating Instructions**

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The seat belt latch plate is above the back of the front seat, next to your arm on the pillar. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to allow the belt to go around your lap.

**Pulling Out the Lap/Shoulder Belt Latch Plate**

1 — Latch Plate

3. When the belt is extended long enough to fit, insert the latch plate into the buckle until you hear a “click.”



Inserting Latch Plate into Buckle

### WARNING!

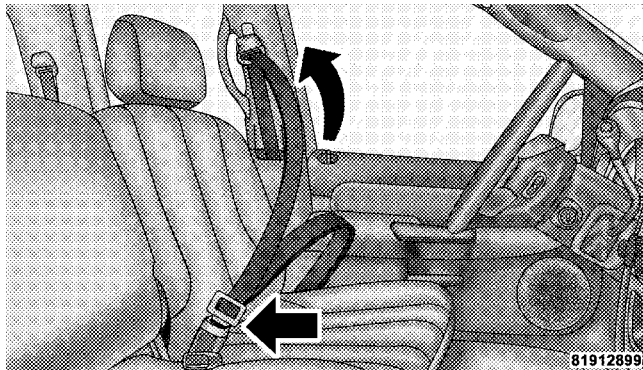
- A belt buckled into the wrong buckle will not protect you properly. The lap portion could ride too high on your body, possibly causing internal injuries. Always buckle your belt into the buckle nearest you.
- A belt that is too loose will not protect you as well. In a sudden stop you could move too far forward, increasing the possibility of injury. Wear your seat belt snugly.

*(Continued)*

**WARNING! (Continued)**

- A belt that is worn under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing head and neck injury. And a belt worn under the arm can cause internal injuries. Ribs aren't as strong as shoulder bones. Wear the belt over your shoulder so that your strongest bones will take the force in a collision.
- A shoulder belt placed behind will not protect you from injury during a collision. You are more likely to hit your head in a collision if you do not wear your shoulder belt. The lap and shoulder belt are meant to be used together.

4. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the latch plate and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.



Removing Slack from Belt



**WARNING!**

- A lap belt worn too high can increase the risk of internal injury in a collision. The belt forces won't be at the strong hip and pelvic bones, but across your abdomen. Always wear the lap belt as low as possible and keep it snug.
- A twisted belt can't do its job as well. In a collision, it could even cut into you. Be sure the belt is straight. If you can't straighten a belt in your vehicle, take it to your authorized dealer and have it fixed.

5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

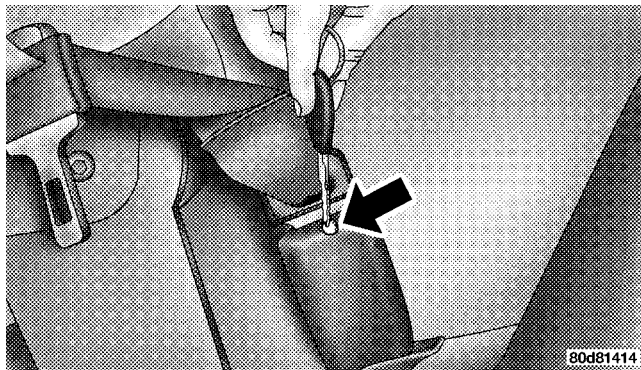
6. To release the belt, push the red button on the buckle. The belt will automatically retract to its stowed position. If necessary, slide the latch plate down the webbing to allow the belt to retract fully.

**WARNING!**

- A frayed or torn belt could rip apart in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts.
- Damaged parts must be replaced immediately. Do not disassemble or modify the system.
- Seat belt assemblies must be replaced after a collision if they have been damaged (i.e., bent retractor, torn webbing, etc.) or if the airbag deployed.

### Regular Cab Front Center Three-Point Belt

1. The front center seat belt on the Regular Cab may be disconnected to open up utilization of the storage areas behind the front seats. The black latch plate can be detached from the black keyed seat belt buckle located on the inboard side of the passenger seat. Insert the vehicle ignition key into the center white slot on the black buckle. The black buckle latch plate can be removed when the key is pressed into the buckle. Allow the retractor to take up the surplus webbing, and the buckles will hang vertically from the cab back exit bezel, thus freeing up all the area behind the front seats.

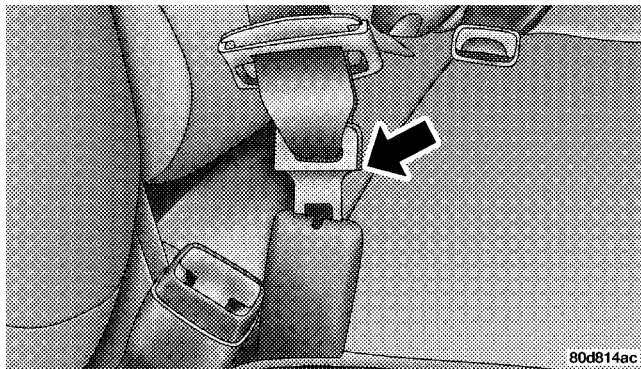


#### Detaching Buckle with Key

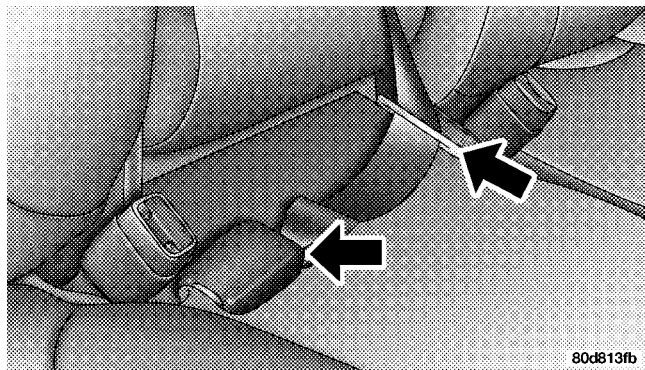
2. To reattach the seat belt to the front center seat, pull the black buckle latch plate forward from the cab back panel and insert it into the black keyed buckle until there is an audible click. Refer to the previous section for the proper seat belt usage.

**WARNING!**

- If the black latch and black buckle are not properly connected when the seat belt is used by an occupant, the seat belt will not be able to provide proper restraint and will increase the risk of injury in a collision.
- When reattaching the black latch and black buckle, ensure the seat belt webbing is not twisted. If the webbing is twisted, follow the preceding procedure to detach the black latch and black buckle, untwist the webbing, and reattach the black latch and black buckle.



Inserting Latch Plate



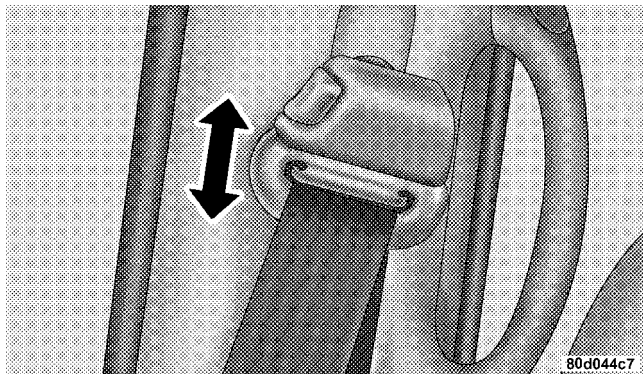
In-Use Position

**WARNING!**

If the black latch and buckle are not connected when the seat belt is used by an occupant, the seat belt will not restrain you properly.

**Adjustable Upper Shoulder Belt Anchorage**

In the front row outboard seats, the shoulder belt can be adjusted upward or downward to help position the belt away from your neck. Press the button located on the upper belt guide, and then move it up or down to the position that fits you best.



Shoulder Belt Adjustment

As a guide, if you are shorter than average, you will prefer a lower position, and if you are taller than average, you will prefer a higher position. When you release the anchorage, try to move it up or down to make sure that it is locked in position.

### **Automatic Locking Retractors (ALR) Mode – If Equipped**

In this mode, the shoulder belt is automatically pre-locked. The belt will still retract to remove any slack in the shoulder belt. The Automatic Locking Mode is available on all passenger seating positions with a combination lap/shoulder belt.

### **When to Use the Automatic Locking Mode**

Use this mode anytime a child safety seat is installed in a passenger seating position. Children 12 years old and younger should be properly restrained in the rear seat whenever possible.

### **How to Use the Automatic Locking Mode**

1. Buckle the combination lap/shoulder belt.
2. Grasp the shoulder portion and pull downward until the entire belt is extracted.
3. Allow the belt to retract. As the belt retracts, you will hear a “clicking” sound. This indicates the safety belt is now in the Automatic Locking Mode.

### **How to Disengage the Automatic Locking Mode**

Disconnect the combination lap/shoulder belt and allow it to retract completely to disengage the Automatic Locking Mode and activate the Vehicle Sensitive (Emergency) Locking Mode.

### Center Lap Belts

The center seating position for the Quad Cab® front seat has a lap belt only. To fasten the lap belt, slide the latch plate into the buckle until you hear a "click." To lengthen the lap belt, tilt the latch plate and pull. To remove slack, pull the loose end of the webbing. Wear the lap belt snug against the hips. Sit back and erect in the seat, then adjust the belt as tightly as is comfortable.

#### **WARNING!**

- A lap belt worn too loose or too high is dangerous.
- A belt worn too loose can allow you to slip down and under the belt in a collision.
- A belt that is too loose or too high will apply crash forces to the abdomen, not to the stronger hip bones. In either case, the risk of internal injuries is greater. Wear a lap belt low and snug.

### Seat Belt Pretensioners — If Equipped

The seat belts for both front seating positions are equipped with pretensioning devices that are designed to remove slack from the seat belt system in the event of a collision. These devices improve the performance of the seat belt by assuring that the belt is tight about the occupant early in a collision. Pretensioners work for all size occupants, including those in child restraints.

**NOTE:** These devices are not a substitute for proper seat belt placement by the occupant. The seat belt still must be worn snugly and positioned properly.

The pretensioners are triggered by the airbag control module. Like the airbags, the pretensioners are single-use items. After a collision that is severe enough to deploy the airbags and pretensioners, both must be replaced.

## Enhanced Seat Belt Use Reminder System (BeltAlert®)

If the driver's seat belt has not been buckled within 60 seconds of starting the vehicle and if the vehicle speed is greater than 5 mph (8 km/h), the Enhanced Seat Belt Use Reminder System (BeltAlert®) will alert the driver to buckle the seat belt. The driver should also instruct all other occupants to buckle their seat belts. If the driver unbuckles the seat belt while the vehicle is in motion an immediate chime will be heard, and BeltAlert® will continue to chime and flash the Seat Belt Reminder Light for 96 seconds or until the driver's seat belt is buckled. BeltAlert® will be reactivated if the ignition is cycled, driver's seat belt is unbuckled for more than 10 seconds and the vehicle speed is greater than 5 mph (8 km/h).

BeltAlert® can be enabled or disabled by your authorized dealer or by following these steps:

**NOTE:** The following steps must occur within the first 60 seconds of the ignition switch being turned to the ON or START position. Chrysler LLC does not recommend deactivating BeltAlert®.

1. With all doors closed and the ignition switch in any position except ON or START, buckle the driver's seat belt.
2. Turn the ignition switch to the ON position and wait for the Seat Belt Reminder Light to turn off.
3. Within 60 seconds of turning the ignition switch to the ON position, unbuckle and then re-buckle the driver's seat belt at least three times within 10 seconds, ending with the seat belt buckled.

4. Turn the ignition switch to the LOCK position. A single chime will sound to signify that you have successfully completed the programming.

BeltAlert® can be reactivated by repeating this procedure.

**NOTE:** Although BeltAlert® has been deactivated, the Seat Belt Reminder Light will continue to illuminate while the driver's seat belt remains unbuckled.

### **Seat Belts and Pregnant Women**

We recommend that pregnant women use seat belts throughout their pregnancies. Keeping the mother safe is the best way to keep the baby safe.

Pregnant women should wear the lap part of the belt across the thighs and as snug against the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

### **Seat Belt Extender**

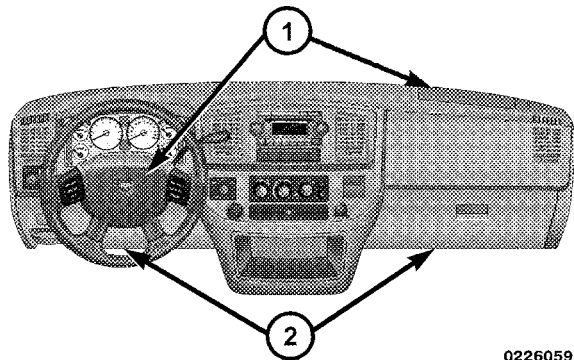
If a seat belt is too short, even when fully extended, your authorized dealer can provide you with a seat belt extender. This extender should be used only if the existing belt is not long enough. When it is not required, remove the extender and store it.

#### **WARNING!**

**Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use the seat belt extender when the lap belt is not long enough when it is worn low and snug, and in the recommended seating positions. Remove and store the extender when not needed.**



## Driver And Right Front Passenger Supplemental Restraint System (SRS) — Airbags



022605988

1 — Driver and Passenger Airbags

2 — Knee Bolsters

This vehicle has airbags for both the driver and right front passenger as a supplement to the seat belt restraint systems. The driver's front airbag is mounted in the

steering wheel. The passenger front airbag is mounted in the instrument panel, above the glove compartment. The words SRS/AIRBAG are embossed on the airbag covers.

**NOTE:** The front airbags are certified to the Federal regulations that allow less forceful deployment.

The front airbags have a multistage inflator design. This may allow the airbag to have different rates of inflation that are based on collision severity and occupant size.

This vehicle may also be equipped with window bags to protect the driver, front, and rear passengers sitting next to a window. If the vehicle is equipped with window bags, they are located above the side windows. Their covers are also labeled SRS AIRBAG.

**NOTE:** Airbag covers may not be obvious in the interior trim; but they will open to allow airbag deployment.

**WARNING!**

- Do not put anything on or around the front airbag covers or attempt to manually open them. You may damage the airbags and you could be injured because the airbags are no longer functional. These protective covers for the airbag cushions are designed to open only when the airbags are inflating.
- If your vehicle is equipped with window bags, do not stack luggage or other cargo up high enough to block the location of the window bag. The area where the window bag is located should remain free from any obstructions.

*(Continued)*

**WARNING! (Continued)**

- If your vehicle is equipped with window bags, do not have any accessory items installed which will alter the roof, including adding a sunroof to your vehicle. Do not add roof racks that require permanent attachments (bolts or screws) for installation on the vehicle roof. Do not drill into the roof of the vehicle for any reason.

**NOTE:** Do not use a clothing bar mounted to the coat hooks in this vehicle. A clothing bar will impede the proper performance of the window bags.

Along with the seat belts, front airbags work with the instrument panel knee bolsters to provide improved protection for the driver and front passenger. Window bags also work with seat belts to improve occupant protection.

The seat belts are designed to protect you in many types of collisions. The front airbags deploy in moderate-to-severe frontal collisions.

If your vehicle is so equipped, the window bag on the crash side of the vehicle is triggered in moderate-to-severe side collisions. But even in collisions where the airbags work, you need the seat belts to keep you in the right position for the airbags to protect you properly.

Here are some simple steps you can follow to minimize the risk of harm from a deploying airbag:

1. Children 12 years and younger should always ride buckled up in a rear seat in an appropriate child restraint.

### **WARNING!**

**Infants in rear-facing child restraints should NEVER ride in the front seat of a vehicle with a passenger front airbag, unless the airbag is turned off (2500/3500 Regular Cab Vehicles Only). An airbag deployment can cause severe injury or death to infants in that position. See the Passenger Airbag ON/OFF Switch section.**

You should read the instructions provided with your child restraint to make sure that you are using it properly.

2. If your vehicle does not have a rear seat, see the Passenger Airbag ON/OFF Switch section.

3. Children that are not big enough to properly wear the vehicle seat belt (see section on Child Restraints) should be secured in the rear seat in child restraints or belt-positioning booster seats. Older children who do not use

child restraints or belt-positioning booster seats, should ride properly buckled up in the rear seat. Never allow children to slide the shoulder belt behind them or under their arm.

4. All occupants should use their lap and shoulder belts properly.

5. The driver and front passenger seats should be moved back as far as practical to allow the airbag room to inflate.

6. If your vehicle has window bags, do not lean against the door or window, airbags will inflate forcefully into the space between you and the door.

7. If the airbag system in this vehicle needs to be modified to accommodate a disabled person, contact the Customer Center. Phone numbers are provided in the "If You Need Customer Assistance" section later in this owner's manual.

### **WARNING!**

- **Relying on the airbags alone could lead to more severe injuries in a collision. The airbags work with your seat belt to restrain you properly. In some collisions, the airbags won't deploy at all. Always wear your seat belts even though you have airbags.**
- **Being too close to the steering wheel or instrument panel during airbag deployment could cause serious injury. Airbags need room to inflate. Sit back, comfortably extending your arms to reach the steering wheel or instrument panel.**
- **If the vehicle has window bags, they also need room to inflate. Do not lean against the door or window. Sit upright in the center of the seat.**

## Airbag System Components

The airbag system consists of the following:

- Occupant Restraint Controller (ORC)
- Side Remote Acceleration Sensors (if equipped)
- Airbag Warning Light
- Driver Airbag
- Passenger Airbag
- Window Bags above Side Windows (if equipped)
- Steering Wheel and Column
- Instrument Panel
- Interconnecting Wiring
- Knee Impact Bolsters
- Front Acceleration Sensors (1500 Vehicles Only)

- Driver and Front Passenger Seat Belt Pretensioners (if equipped)
- Driver Seat Track Position Sensor (if equipped)
- Passenger Side Frontal Airbag ON/OFF Switch (2500/3500 Regular Cab Vehicles Only)
- Passenger Airbag Disable (PAD) Indicator Light (2500/3500 Regular Cab Vehicles Only)

## How the Airbag System Works

- The **Occupant Restraint Controller (ORC)** determines if a frontal collision is severe enough to require the airbags to inflate. The front airbag inflators are designed to provide different rates of airbag inflation from information provided by the ORC. The ORC will not detect rollover or rear collisions.

The ORC also monitors the readiness of the electronic parts of the system whenever the ignition switch is in

the START or RUN positions. These include all of the items listed above except the steering wheel and column, and knee bolsters. If the key is in the OFF position, in the ACC position, or not in the ignition, the airbags are not on and will not inflate.



- The ORC also turns on the Airbag Warning Light in the instrument panel for six to eight seconds for a self-check when the ignition is first turned on. After the self-check, the Airbag Warning Light will turn off. If the ORC detects a malfunction in any part of the system, it turns on the Airbag Warning Light either momentarily or continuously. A single chime will sound if the light comes on again after initial startup.

### WARNING!

**Ignoring the Airbag Warning Light in your instrument panel could mean you won't have the airbags to protect you in a collision. If the light does not come on, stays on after you start the vehicle, or if it comes on as you drive, have the airbag system checked right away.**

- The **Passenger Airbag Disable (PAD) Indicator Light (if equipped)** (an amber light located in the center of the instrument panel), tells the driver and front passenger when the front passenger airbag is turned off. The PAD indicator light illuminates the words "PASS AIR BAG OFF" to show that the passenger airbag will not inflate during a collision requiring airbags. The PAD light will illuminate when the passenger frontal airbag has been turned off by using the manual ON/OFF switch (2500/3500 Regular Cab Vehicles

Only). See Passenger Airbag ON/OFF Switch – (2500/3500 Regular Cab Vehicles Only) in this section for additional information.



#### Passenger Airbag Disable (PAD) Indicator Light

- The **Driver and Passenger Airbag/Inflator Units** are located in the center of the steering wheel and the right side of the instrument panel. When the ORC detects a

collision requiring the airbags, it signals the inflator units. A large quantity of non-toxic gas is generated to inflate the front airbags. Different airbag inflation rates may be possible based on collision severity and occupant size. The steering wheel hub trim cover and the upper right side of the instrument panel separate and fold out of the way as the bags inflate to their full size. The bags fully inflate in about 50 - 70 milliseconds. This is about half of the time it takes to blink your eyes. The bags then quickly deflate while helping to restrain the driver and front passenger. The driver's front airbag gas is vented through vent holes in the sides of the airbag. The passenger's front airbag gas is vented through vent holes in the sides of the airbag. In this way the airbags do not interfere with your control of the vehicle.

- The **Side Impact SRS Window Bags** are designed to activate only in certain side collisions. When the ORC (with side impact option) detects a collision requiring

the window bags to inflate, it signals the inflators on the crash side of the vehicle. A quantity of non-toxic gas is generated to inflate the window bag. The inflating window bag pushes the outside edge of the headliner out of the way and covers the window. The airbag inflates in about 30 milliseconds (about one quarter of the time it takes to blink your eyes) with enough force to injure you if you are not belted and seated properly, or if items are positioned in the area where the window bag inflates. This especially applies to children. The window bag is only about 3-1/2 in (9 cm) thick when it is inflated.

**NOTE:** At no time should any supplemental restraint system (SRS) component or SRS-related component or fastener be modified or replaced with any part except those which are approved by Chrysler LLC/Mopar®.

- The **Knee Impact Bolsters** help protect the knees of the driver and the front passenger, and position them for the best interaction with the front airbag.

### Passenger Airbag On/Off Switch – (2500/3500 Regular Cab Vehicles Only)



Passenger Airbag On/Off Switch



The passenger front airbag is to be turned off only if the passenger:

- is an infant (less than one year old) who must ride in the front seat because there is no rear seat, because the rear seat is too small for a rear-facing infant restraint or because the infant has a medical condition which makes it necessary for the driver to be able to see the infant;
- is a child, age 1 to 12 who must ride in the front seat because there is no rear seat, because there is no rear seat position available, or because the child has a medical condition which makes it necessary for the driver to be able to see the child;
- has a medical condition which makes passenger airbag inflation (deployment) a greater risk for the passenger than the risk of hitting the dashboard (instrument panel) or windshield in a crash.

### **WARNING!**

**Whenever an airbag is turned off, even a lap/shoulder belted passenger may hit their head, neck, or chest on the dashboard (instrument panel) or windshield in a crash. This may result in serious injury or death.**

**2**

#### **To Shut Off the Passenger Airbag (2500/3500 Regular Cab Vehicles Only)**

Place the ignition key in the Passenger Airbag ON/OFF Switch, push the key in and turn clockwise, and remove the key from the switch. This will shut off the passenger side airbag. The OFF light near the switch will illuminate when the ignition switch is turned to the ON position.

### To Turn On the Passenger Airbag (2500/3500 Regular Cab Vehicles Only)

Place the ignition key in the Passenger Airbag ON/OFF Switch, push the key in and turn counterclockwise, and remove the key from the switch. This will turn ON the passenger airbag. The OFF light near the switch will be off when the ignition switch is turned to the ON position.

### If a Deployment Occurs

The airbag system is designed to deploy the airbags when the impact sensors detect a moderate-to-severe frontal collision, to help restrain the driver and front passenger, and then immediately deflate.

**NOTE:** A frontal collision that is not severe enough to need airbag protection will not activate the system. This does not mean something is wrong with the airbag system.

If you do have a collision which deploys the airbags, any or all of the following may occur:

- The nylon airbag material may sometimes cause abrasions and/or skin reddening to the driver and front passenger as the airbags deploy and unfold. The abrasions are similar to friction rope burns or those you might get sliding along a carpet or gymnasium floor. They are not caused by contact with chemicals. They are not permanent and normally heal quickly. However, if you haven't healed significantly within a few days, or if you have any blistering, see your doctor immediately. As the airbags deflate you may see some smoke-like particles. The particles are a normal by-product of the process that generates the non-toxic gas used for airbag inflation. These airborne particles may irritate the skin, eyes, nose, or throat. If you have skin or eye irritation, rinse the area with cool water. For nose or throat irritation, move to fresh air. If the

irritation continues, see your doctor. If these particles settle on your clothing, follow the garment manufacturer's instructions for cleaning.

- It is not advisable to drive your vehicle after the airbags have deployed. If you are involved in another collision, the airbags will not be in place to protect you.

### **WARNING!**

Deployed airbags and seat belt pretensioners (if equipped) cannot protect you in another collision. Have the airbags, seat belt pretensioners, and the front passenger seat belt retractor assembly, replaced by an authorized dealer as soon as possible.

## Maintaining Your Airbag System

### **WARNING!**

- Modifications to any part of the airbag system could cause it to fail when you need it. You could be injured if the airbag system is not there to protect you. Do not modify the components or wiring, including adding any kind of badges or stickers to the steering wheel hub trim cover or the upper right side of the instrument panel. Do not modify the front bumper, vehicle body structure, or add aftermarket side steps or running boards.
- You need proper knee impact protection in a collision. Do not mount or locate any aftermarket equipment on or behind the knee bolsters.
- It is dangerous to try to repair any part of the airbag system yourself. Be sure to tell anyone who works on your vehicle that it has an airbag system.

**NOTE:** Perchlorate Material – special handling may apply, see [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)

### Enhanced Accident Response System

If the airbags deploy after an impact and the electrical system remains functional, vehicles equipped with power door locks will unlock automatically. In addition, approximately five seconds after the vehicle has stopped moving, the interior lights will light until the ignition switch is turned off.

### Airbag Warning Light



You will want to have the airbags ready to inflate for your protection in an impact. While the airbag system is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system promptly:

- The Airbag Warning Light does not come on or flickers during the six to eight seconds when the ignition switch is first turned ON.

- The light remains on or flickers after the six to eight-second interval.
- The light flickers or comes on and remains on while driving.

**NOTE:** If the speedometer, tachometer or any engine-related gauges are not working, the airbag control module may also be disabled. The airbags may not be ready to inflate for your protection. Promptly check fuse block for blown fuses. Refer to the label located on the inside of the fuse block cover for the proper airbag fuses. See your authorized dealer if the fuse is good.

### Event Data Recorder (EDR)

In the event of an accident, your vehicle is designed to record up to five seconds of specific vehicle data parameters (see the following list) in an event data recorder prior to the moment of airbag deployment, or near deployment, and up to a quarter second of high-speed deceleration data during and/or after airbag deploy-

ment. EDR data are ONLY recorded if an airbag deploys, or nearly deploys, and are otherwise unavailable.

**NOTE:**

1. A near-deployment event occurs when the airbag sensor detects severe vehicle deceleration usually indicative of a crash, but not severe enough to warrant airbag deployment.
2. Under certain circumstances, EDR data may not be recorded (e.g., loss of battery power).

In conjunction with other data gathered during a complete accident investigation, the electronic data may be used by Chrysler LLC and others to learn more about the possible causes of crashes and associated injuries in order to assess and improve vehicle performance. In addition to crash investigations initiated by Chrysler LLC, such investigations may be requested by customers, insurance carriers, government officials, and professional crash researchers, such as those associated with universities, and with hospital and insurance organizations.

In the event that an investigation is undertaken by Chrysler LLC (regardless of initiative), the company or its designated representative will first obtain permission of the appropriate custodial entity for the vehicle (usually the vehicle owner or lessee) before accessing the electronic data stored, unless ordered to download data by a court with legal jurisdiction (i.e., pursuant to a warrant). A copy of the data will be provided to the custodial entity upon request. General data that does not identify particular vehicles or crashes may be released for incorporation in aggregate crash databases, such as those maintained by the US government and various states. Data of a potentially sensitive nature, such as would identify a particular driver, vehicle, or crash, will be treated confidentially. Confidential data will not be disclosed by Chrysler LLC to any third party except when:

1. Used for research purposes, such as to match data with a particular crash record in an aggregate database, provided confidentiality of personal data is thereafter preserved.

2. Used in defense of litigation involving a Chrysler LLC product.
3. Requested by police under a legal warrant.
4. Otherwise required by law.

Data parameters that may be recorded:

- Diagnostic trouble code(s) and warning light status for electronically-controlled safety systems, including the airbag system
- Airbag disable light status (if equipped)
- "Time" of airbag deployment (in terms of ignition cycles and vehicle mileage)
- Airbag deployment level (if applicable)
- Impact acceleration and angle
- Seat belt status

- Brake status (service and parking brakes)
- Accelerator status (including vehicle speed)
- Engine control status (including engine speed)
- Transmission gear selection
- Cruise control status
- Traction/stability control status
- Tire Pressure Monitoring System status

### **Child Restraints**

Everyone in your vehicle needs to be buckled up at all times, including babies and children. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

Children 12 years and younger should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats rather than in the front.

### **WARNING!**

**In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap can become so great that you could not hold the child, no matter how strong you are. The child and others could be badly injured. Any child riding in your vehicle should be in a proper restraint for the child's size.**

### **Infants and Small Children**

There are different sizes and types of restraints for children from newborn size to the child almost large enough for an adult safety belt. Use the restraint that is correct for your child.

- Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 20 lbs (9 kg). Two types of child restraints can be used rearward-facing: infant carriers and convertible child seats. Both types of child restraints are held in the vehicle by the lap/shoulder belt.
- The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 20 lbs (9 kg). Convertible child seats can be used either rearward-facing or forward-facing in the vehicle. Convertible child seats often have a higher weight limit in the rearward-facing direction than

infant carriers do, so they can be used rearward-facing by children who weigh more than 20 lbs (9 kg) but are less than one year old.

**WARNING!**

**Rearward-facing child seats must NEVER be used in the front seat of a vehicle with a front passenger airbag unless the airbag is turned off. An airbag deployment could cause severe injury or death to infants in this position.**

- Children who weigh more than 20 lbs (9 kg) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible child seats used in the forward-facing direction are for children who weigh 20 to 40 lbs (9 to 18 kg) and who are older than one year. These child seats are also held in the vehicle by the lap/shoulder belt.

- The belt-positioning booster seat is for children weighing more than 40 lbs (18 kg), but who are still too small to fit the vehicle's seat belts properly. If the child cannot sit with knees bent over the vehicle's seat cushion while the child's back is against the seat back, they should use a belt-positioning-booster seat. The child and booster seat are held in the vehicle by the lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion.) For further information refer to [www.seatcheck.org](http://www.seatcheck.org).

**WARNING!**

- **Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.**

*(Continued)*



**WARNING! (Continued)**

- A rearward-facing child restraint should only be used in a rear seat, or in the front seat if the passenger's front airbag is OFF. If the airbag is left ON, a rearward-facing child restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal injury to the infant.

Here are some tips for getting the most out of your child restraint:

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. We also recommend that you make sure that you can install the child restraint in the vehicle where you will use it before you buy it.
- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.

- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.
- The passenger seat belts are equipped with Automatic Locking Retractors (ALR), which are designed to keep the lap portion tight around the child restraint so that it is not necessary to use a locking clip.

Pull the belt from the retractor until there is enough to allow you to pass through the child restraint and slide the latch plate into the buckle. Then pull on the belt until it is fully extended from the retractor. Allow the belt to return to the retractor, pulling on the excess webbing to tighten the lap portion around the child restraint. Refer to "Automatic Locking Retractors (ALR) Mode," earlier in this section.

- In the rear seat, you may have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path

opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle-end belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.

- If the belt still can't be tightened, or if pulling and pushing on the restraint loosens the belt, disconnect the latch plate from the buckle, turn the latch plate around, and insert the latch plate into the buckle again. If you still can't make the child restraint secure, try a different seating position.
- Buckle the child into the seat according to the child restraint manufacturer's directions.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Do not leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seatbacks and cause serious personal injury.

### **WARNING!**

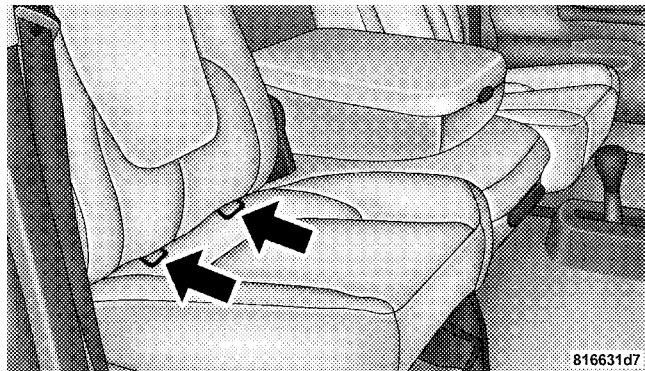
**Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.**

#### **Lower Anchors and Tether for CHildren (LATCH)**

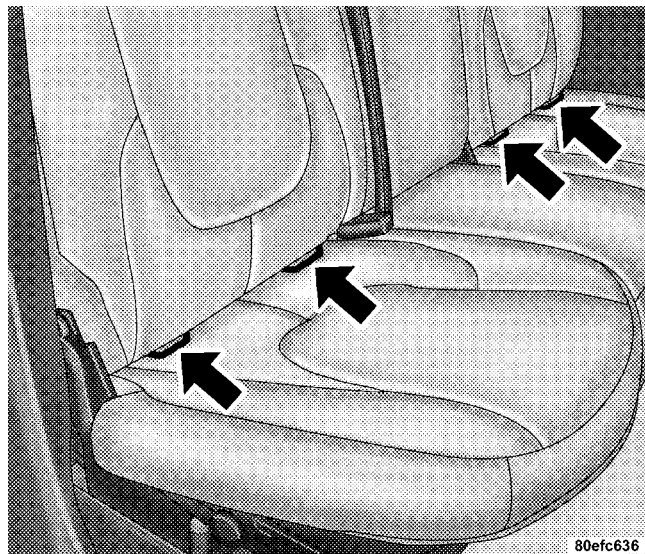
Each vehicle is equipped with the child restraint anchorage system called LATCH, which stands for Lower Anchors and Tether for CHildren. LATCH child restraint anchorage systems are installed in the 2500/3500 Regular Cab passenger seat position and the Quad Cab® rear seat outboard positions. LATCH-equipped seating positions feature both lower anchor bars, located at the back of the seat cushion, and tether strap anchorages, located behind the seatback. (Refer to Child Restraint Tether Anchor later in this section.)

Identification dots are located above the standard cab front seat lower anchorages as a guide for locating lower anchors.

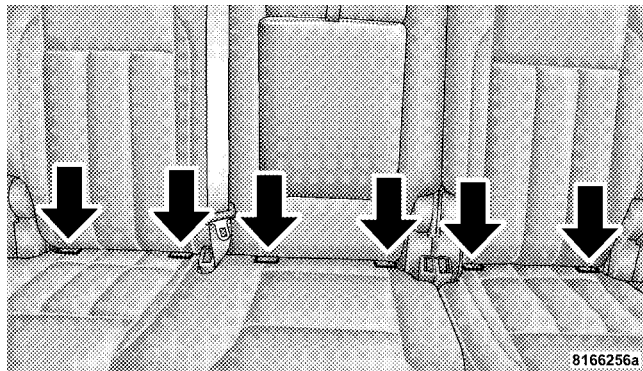
**NOTE:** For children riding in the front seat of a Regular Cab model, refer to the "Passenger Airbag ON/OFF Switch" located in this section.



Regular Cab Passenger Seat



Quad Cab® Rear Outboard Seats



### Mega Cab® Rear Seats

Child restraint systems having attachments designed to connect to the lower anchorages are now available. Child restraints having tether straps and hooks for connection to the seatback tether anchorage, have been available for some time. In fact, many child restraint manufacturers will provide add-on tether strap kits for some of their older products.

Because the lower anchorages are to be introduced to passenger carrying vehicles over a period of years, child restraint systems having attachments for those anchorages will continue to have features for installation in vehicles using the lap or lap/shoulder belt. They will also have tether straps, and you are urged to take advantage of all of the available attachments provided with your child restraint in any vehicle.

#### NOTE:

- When using the LATCH attaching system to install a child restraint, please ensure that all seat belts not being used for occupant restraints are stowed and out of reach of children. It is recommended that before installing the child restraint, buckle the seat belt so the seat belt is tucked behind the child restraint and out of reach. If the buckled seat belt interferes with the child restraint installation, instead of tucking the seat belt behind the child restraint, route the seat belt through the child restraint belt path and then buckle it. This should stow the seat belt out of the reach of an

inquisitive child. Remind all children in the vehicle that the seat belts are not toys and should not be played with, and never leave your child unattended in the vehicle.

- If your child restraint seat is not LATCH-compatible, install the restraint using the vehicle seat belt.

### Installing the Child Restraint System

#### **WARNING!**

**Do not install child restraint systems equipped with LATCH attachments in the center position of a Quad Cab® model rear seat. The LATCH anchorages in this seat are designed for the two outboard seating positions only. A child may be placed in the rear center seating position of a Quad Cab® model using the seat belt and child tether anchorage. Failure to follow this may result in serious or fatal injury.**

We urge you to carefully follow the directions of the manufacturer when installing your child restraint. Many, but not all, restraint systems will be equipped with separate straps on each side, with each having a hook or connector, and a means for adjusting the tension in the strap. Forward-facing toddler restraints and some rearward-facing infant restraints will also be equipped with a tether strap, a hook and means for adjusting the tension in the strap.

In general, you will first loosen the adjusters on the lower straps and tether straps so that you can more easily attach the hook or connector to the lower anchorages and tether anchorages. Then tighten all three straps as you push the child restraint rearward and downward into the seat.

Not all child restraint systems will be installed as we have described here. Again, carefully follow the instructions that come with the child restraint system.

**WARNING!**

Improper installation of a child restraint to the LATCH anchorages can lead to failure of an infant or child restraint. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.

**Child Restraint Tether Anchor**

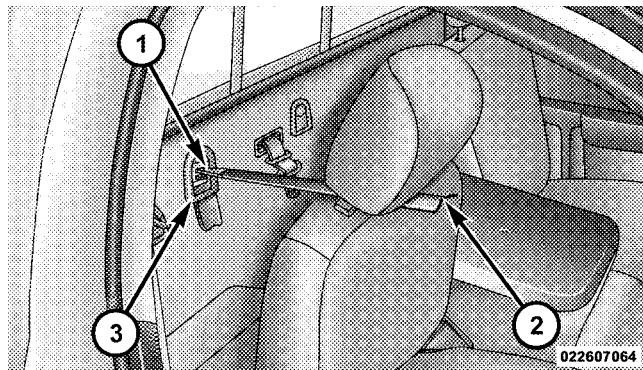
Child restraints having tether straps and hooks for connection to tether anchors have been available for some time. In fact, many child restraint manufacturers will provide add-on tether strap kits for their older products. Regular Cab models of Ram Pickups have two tether anchorages, one each behind the front center and right seats. Quad Cab® models have three anchorages, one behind each of the rear seats.

**WARNING!**

An incorrectly anchored tether strap could lead to seat failure and injury to the child. In a collision, the seat could come loose and allow the child to crash into the inside of the vehicle or other passengers, or even be thrown from the vehicle. Use only the anchor positions directly behind the child seat to secure a child restraint top tether strap. Follow the instructions below. See your authorized dealer for help, if necessary.

### Tether Anchorage Points at the Right and Center Front Seat (Regular Cab - All Seats)

1. Place the child restraint on the seat and adjust the tether strap so that it will reach over the seatback under the head restraint to the tether anchor directly behind the seat.
2. Lift the cover (if so equipped), and attach the hook to the square opening in the sheet metal.
3. Install the child restraint and remove the slack in the tether strap according to the manufacturer's instructions.



Regular Cab with Any Bench Seat

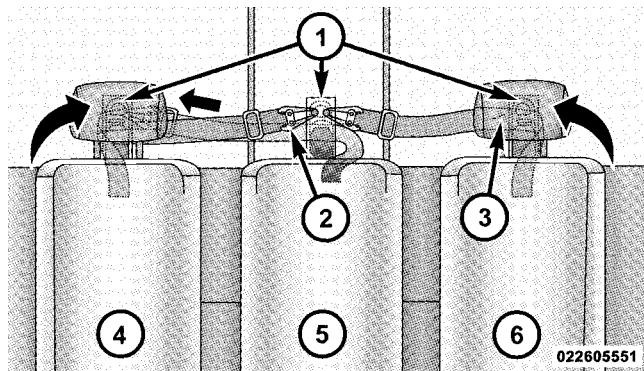
- 1 — Tether Strap Hook
- 2 — Tether Strap to Child Restraint
- 3 — Tether Anchor

### **Multiple Child Restraint Installation Sequence - (Quad Cab® Rear Seats)**

1. Obtain tether straps by raising the head restraints and reaching between the rear glass and rear seat. The tether strap may be retained with an elastic band. Accessibility to the tether strap is greatly improved by raising the seat cushion to the “up” position. Remove the elastic before use.
2. Place a child restraint on each outboard rear seat and adjust the tether strap so that it will reach under the head restraint to the tether anchor directly behind the seat and then to the anchor directly behind the center rear seat.

3. Pass each tether strap hook under the head restraint and through the loop of webbing behind the child seat.
4. Route each tether strap to the anchor behind the center seat, and attach the hooks to the metal ring.
5. Place a child restraint on the center rear seat and adjust the tether strap so that it will reach under the head restraint to the tether anchor directly behind the seat and to the anchor directly behind the right seat.
6. Install each child restraint and remove the slack in the tether strap according to the child restraint manufacturer’s instructions.





**Multiple Child Restraints**

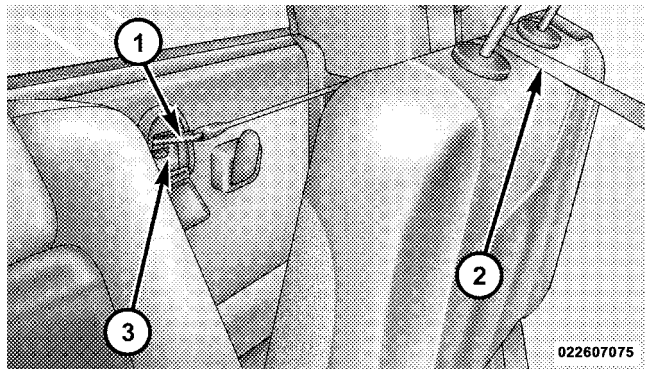
- 1 — Inner Anchor Strap Ring(s)
- 2 — Snap Hook
- 3 — Tether Strap
- 4 — Passenger's Side Rear Child Seat
- 5 — Rear Center Child Seat
- 6 — Driver's Side Rear Child Seat

### Tether Anchorage Points at All Three Seating Positions (Mega Cab®)

1. Place the child restraint on the seat and adjust the tether strap so that it will reach over the seatback under the head restraint to the tether anchor directly behind the seat.

2. Lift the cover, and attach the hook to the square opening in the sheet metal.

3. Install the child restraint and remove the slack in the tether strap according to the manufacturer's instructions.



### Mega Cab Tether Anchor

- 1 — Tether Strap Hook
- 2 — Tether Strap to Child Restraint
- 3 — Tether Anchor

### Children Too Large for Booster Seats

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend over the front of the seat when their back is against the seatback, should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.
- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.

If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.

### Transporting Pets

Airbags deploying in the front seat could harm your pet. An unrestrained pet will be thrown about and possibly injured, or injure a passenger during panic braking or in a collision. Pets should be restrained in the rear seat in pet harnesses or pet carriers that are secured by seat belts.

### ENGINE BREAK-IN RECOMMENDATIONS

A long break-in period is not required for the engine in your vehicle.

Drive moderately during the first 300 miles (500 km). After the initial 60 miles (100 km), speeds up to 50 or 55 mph (80 or 90 km/h) are desirable.

While cruising, brief full-throttle acceleration within the limits of local traffic laws, contributes to a good break-in. Wide-open throttle acceleration in low gear can be detrimental and should be avoided.

The engine oil installed in the engine at the factory is a high-quality energy conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. The recommended viscosity and quality grades are shown in “Engine Oil”, under “Maintenance Procedures” in section 7 of this manual. **NON-DETERGENT OR STRAIGHT MINERAL OILS MUST NEVER BE USED.**

A new engine may consume some oil during its first few thousand miles (kilometers) of operation. This should be considered a normal part of the break-in and not interpreted as an indication of difficulty.

## SAFETY TIPS

### Transporting Passengers

NEVER TRANSPORT PASSENGERS IN THE CARGO AREA.

#### WARNING!

- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.

### Exhaust Gas

#### WARNING!

Exhaust gases can injure or kill. They contain carbon monoxide (CO), which is colorless and odorless. Breathing it can make you unconscious and can eventually poison you. To avoid breathing (CO) follow these safety tips:

Do not run the engine in a closed garage or in confined areas any longer than needed to move your vehicle in or out of the area.

If it is necessary to sit in a parked vehicle with the engine running, adjust your heating or cooling controls to force outside air into the vehicle. Set the blower at high speed.

If you are required to drive with the trunk/liftgate open, make sure that all windows are closed and the climate control BLOWER switch is set at high speed. DO NOT use the recirculation mode.

The best protection against carbon monoxide entry into the vehicle body is a properly maintained engine exhaust system.

Whenever a change is noticed in the sound of the exhaust system, when exhaust fumes can be detected inside the vehicle, or when the underside or rear of the vehicle is damaged, have a competent mechanic inspect the complete exhaust system and adjacent body areas for broken, damaged, deteriorated, or mispositioned parts. Open seams or loose connections could permit exhaust fumes to seep into the passenger compartment. In addition, inspect the exhaust system each time the vehicle is raised for lubrication or oil change. Replace as required.

## **Safety Checks You Should Make Inside the Vehicle**

### **Seat Belts**

Inspect the belt system periodically, checking for cuts, frays, and loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system.

Front seat belt assemblies must be replaced after a collision. Rear seat belt assemblies must be replaced after a collision if they have been damaged (i.e., bent retractor, torn webbing, etc.). If there is any question regarding belt or retractor condition, replace the belt.

### **Airbag Warning Light**

The light should come on and remain on for six to eight seconds as a bulb check when the ignition switch is first turned ON. If the light is not lit during starting, see your authorized dealer. If the light stays on, flickers, or comes on while driving, have the system checked by an authorized dealer.

### **Defroster**

Check operation by selecting the defrost mode and place the blower control on high speed. You should be able to feel the air directed against the windshield. See your authorized dealer for service if your defroster is inoperable.

### **Periodic Safety Checks You Should Make Outside the Vehicle**

#### **Tires**

Examine tires for excessive tread wear and uneven wear patterns. Check for stones, nails, glass, or other objects lodged in the tread. Inspect the tread and sidewall for cuts and cracks. Check the wheel nuts for tightness. Check the tires (including spare) for proper pressure.

#### **Lights**

Have someone observe the operation of exterior lights while you work the controls. Check turn signal and high beam indicator lights on the instrument panel.

#### **Door Latches**

Check for positive closing, latching, and locking.

#### **Fluid Leaks**

Check area under vehicle after overnight parking for fuel, engine coolant, oil, or other fluid leaks. Also, if gasoline fumes are detected or if fuel, power steering fluid, or brake fluid leaks are suspected, the cause should be located and corrected immediately.

# UNDERSTANDING THE FEATURES OF YOUR VEHICLE

## CONTENTS

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■ Mirrors . . . . .	82	■ uconnect® phone — If Equipped . . . . .	86
□ Inside Day/Night Mirror . . . . .	82	□ Operation . . . . .	88
□ Automatic Dimming Mirror — If Equipped . . . . .	82	□ Phone Call Features . . . . .	96
□ Outside Mirrors . . . . .	83	□ uconnect® phone Features . . . . .	99
□ Outside Mirrors Folding Feature . . . . .	84	□ Advanced Phone Connectivity . . . . .	104
□ Power Mirrors — If Equipped . . . . .	84	□ Things You Should Know About Your uconnect® phone . . . . .	106
□ Heated Mirrors — If Equipped . . . . .	85	□ General Information . . . . .	114
□ Trailer Towing Mirrors — If Equipped . . . . .	85		

- Voice Recognition (VR) System —
  - If Equipped . . . . . 114
  - Voice Recognition (VR) System Operation . . . 114
  - Commands . . . . . 116
  - Voice Training . . . . . 119
- Seats . . . . . 119
  - Manual Seat Adjuster — If Equipped . . . . . 120
  - Reclining Seats (Quad Cab® Models) . . . . . 121
  - Reclining Seats (2500/3500 Models) . . . . . 122
  - Adjustable Head Restraints . . . . . 123
  - Manual Lumbar Support — If Equipped . . . 123
  - Power Seats — If Equipped . . . . . 124
  - Rear Seat Features . . . . . 125
  - Heated Seats — If Equipped . . . . . 129
- To Open And Close The Hood . . . . . 130
- Lights . . . . . 132
  - Interior Lights . . . . . 132
  - Battery Saver . . . . . 133
  - Headlight Delay . . . . . 133
  - Headlights, Parking Lights And Panel Lights . . . . . 134
  - Daytime Running Lights (Canada Only And Fleet Vehicles) . . . . . 134
  - Lights-On Reminder . . . . . 135
  - Fog Lights — If Equipped . . . . . 135
  - Cargo Light — If Equipped . . . . . 135
  - Multifunction Lever . . . . . 136



- Windshield Wipers And Washers . . . . . 138
  - Intermittent Wiper System . . . . . 138
  - Windshield Washers . . . . . 139
- Tilt Steering Column . . . . . 140
- Driver Adjustable Pedals — If Equipped . . . . 141
  - Adjustment . . . . . 141
- Electronic Speed Control — If Equipped . . . . 142
  - To Activate . . . . . 143
  - To Set a Desired Speed . . . . . 143
  - To Deactivate . . . . . 143
  - To Resume Speed . . . . . 143
  - To Vary The Speed Setting . . . . . 143
  - To Accelerate For Passing . . . . . 144

- Overhead Console — If Equipped . . . . . 145
  - Courtesy/Reading Lights . . . . . 145
- Overhead Console With Compass/Temperature Mini-Trip Computer — If Equipped . . . . . 146
  - US/M Button . . . . . 147
  - Reset Button . . . . . 147
  - Global Reset . . . . . 148
  - Step Button . . . . . 148
  - Average Fuel Economy (AVG ECO) . . . . . 148
  - Distance To Empty (DTE) . . . . . 149
  - Trip Odometer (ODO) . . . . . 150
  - Elapsed Time (ET) . . . . . 150
  - C/T Button . . . . . 150

- Automatic Compass Calibration . . . . . 151
- Manual Compass Calibration . . . . . 151
- Recalibrating The Compass . . . . . 151
- Outside Temperature . . . . . 153
- Garage Door Opener — If Equipped . . . . . 153
  - Programming HomeLink® . . . . . 154
  - Gate Operator/Canadian Programming . . . 157
  - Using HomeLink® . . . . . 158
  - Reprogramming A Single HomeLink®  
Button . . . . . 158
  - Security . . . . . 158
  - Troubleshooting Tips . . . . . 158
  - General Information . . . . . 159
- Power Sunroof — If Equipped . . . . . 159
  - Open Sunroof — Express Mode . . . . . 160
  - Closing Sunroof — Express . . . . . 160
  - Pinch Protect Feature . . . . . 160
  - Pinch Protect Override . . . . . 161
  - Venting Sunroof — Express . . . . . 161
  - Sunshade Operation . . . . . 161
  - Wind Buffeting . . . . . 161
  - Sunroof Maintenance . . . . . 162
  - Sunroof Fully Closed . . . . . 162
- Electrical Power Outlets . . . . . 162
- Cigar Lighter And Ash Receiver . . . . . 164
- Cupholders . . . . . 165

- Front Instrument Panel Cupholders (40–20–40 Seats) — Automatic Transmission . . . . . 165
- Front Instrument Panel Cupholders (Bucket Seats) . . . . . 166
- Rear Cupholder (Quad Cab®) — If Equipped . . . . . 167
- Storage . . . . . 167
  - Center Storage Compartment (40–20–40 Seat) — If Equipped . . . . . 167
  - Center Storage Compartment (Bucket Seats) — If Equipped . . . . . 169
  - Storage And Seats (Quad Cab® Models) . . . . . 171
  - Plastic Grocery Bag Retainers — If Equipped . . . . . 172

- Rear Window Features . . . . . 172
  - Rear Window Defroster And Heated Outside Mirrors — If Equipped . . . . . 172
  - Power Sliding Rear Window — If Equipped . . . . . 173
  - Sliding Rear Window — If Equipped . . . . . 174
- Fold Flat Load Floor — If Equipped . . . . . 174
- Pickup Box . . . . . 176
- Slide-In Campers . . . . . 178
  - Camper Applications . . . . . 178
- Easy-Off Tailgate . . . . . 178

## MIRRORS

### Inside Day/Night Mirror

Headlight glare can be reduced by moving the small control under the mirror to the night position (toward the rear of the vehicle). The mirror should be adjusted while set in the day position (toward the windshield). The mirror should be adjusted to center on the view through the rear window.



030407085

### Adjusting Rearview Mirror

#### Automatic Dimming Mirror — If Equipped

This mirror automatically adjusts for headlight glare from vehicles behind you. You can turn the feature on or off by pressing the button at the base of the mirror. A light in the button will illuminate to indicate when the dimming feature is activated.



030406002

Automatic Dimming Mirror

**CAUTION!**

To avoid damage to the mirror during cleaning, never spray any cleaning solution directly onto the mirror. Apply the solution onto a clean cloth and wipe the mirror clean.

**Outside Mirrors**

To receive maximum benefit, adjust the outside mirror(s) to center on the adjacent lane of traffic with a slight overlap of the view obtained on the inside mirror.

**WARNING!**

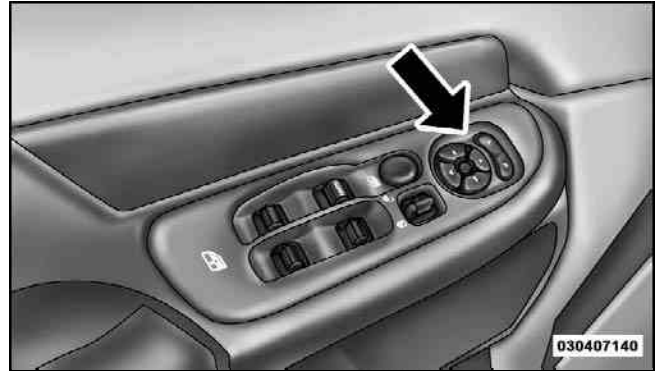
Vehicles and other objects seen in a right side convex mirror will look smaller and farther away than they really are. Relying too much on your right side convex mirror could cause you to collide with another vehicle or other object. Use your inside mirror when judging the size or distance of a vehicle seen in the right side convex mirror. Some vehicles will not have a convex right side mirror.

### Outside Mirrors Folding Feature

All 6 x 9 in exterior mirrors are hinged and may be moved either forward or rearward to resist damage. The hinges have three detent positions: full forward, full rearward and normal.

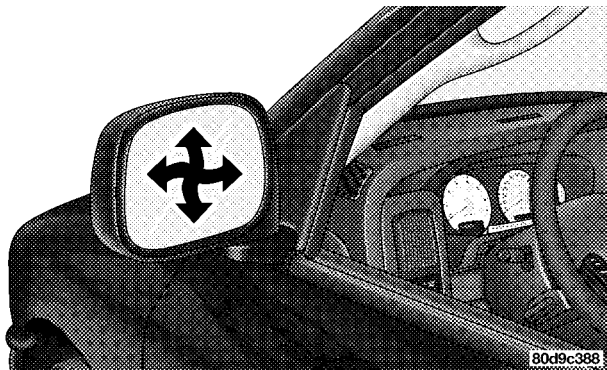
### Power Mirrors — If Equipped

The controls for the power mirrors are located on the driver's door trim panel.




### Power Mirror Switches

Select the left or right mirror using the top switch, then press one of the four arrows on the bottom switch to adjust the mirror. Once the mirror is adjusted, set the top switch to the center (off) position to prevent accidentally moving a mirror.



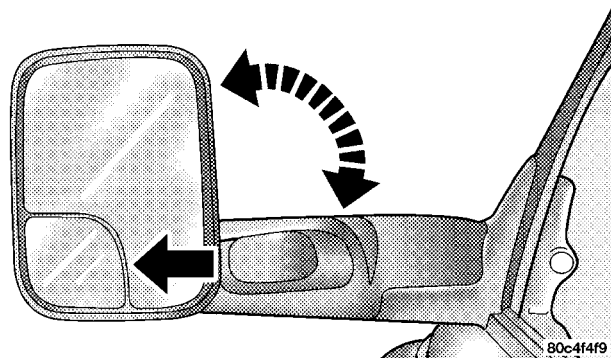
Power Mirror Movement

### Heated Mirrors — If Equipped

 These mirrors are heated to melt frost or ice. This feature is activated whenever you turn on the rear window defroster. Refer to “Rear Window Features” in this section, for further information.

### Trailer Towing Mirrors — If Equipped

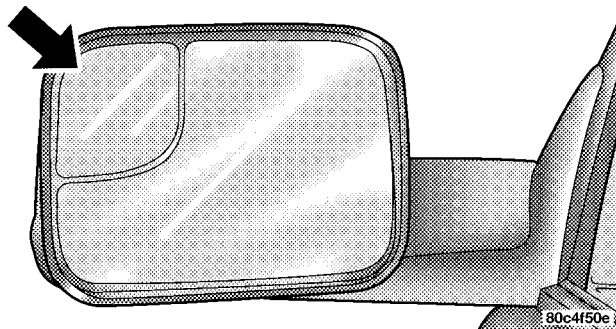
These mirrors are designed with an adjustable mirror head to provide a greater vision range when towing extra-wide loads. To change position inboard or outboard, the mirror head should be rotated (flipped in or out).



Trailer Towing Position

**NOTE:** Fold the trailer towing mirrors rearward prior to entering an automated car wash.

A small blindspot mirror is integrated onto the main mirror surface.



**Blindspot Mirror**

### **uconnect® phone — IF EQUIPPED**

**NOTE:** The sales code RER and REU radios contain an integrated uconnect® phone. Refer to your "Navigation User's Manual" for uconnect® phone operating instructions for these radios. Radio sales code can be located on the lower right corner of the Radio faceplate.

uconnect® phone is a voice-activated, hands-free, in-vehicle communications system. uconnect® allows you to dial a phone number with your cellular phone using simple voice commands (e.g., "Call" ... "Mike" ... "Work" or "Dial" ... "248-555-1212"). Your cellular phone's audio is transmitted through your vehicle's audio system; the system will automatically mute your radio when using the uconnect® phone.

**NOTE:** The uconnect® phone requires a cellular phone equipped with the Bluetooth® "Hands-Free Profile," Version 0.96 or higher. See the uconnect® website for supported phones.



For uconnect® customer support, visit the following websites:

- [www.chrysler.com/uconnect](http://www.chrysler.com/uconnect)
- [www.dodge.com/uconnect](http://www.dodge.com/uconnect)
- [www.jeep.com/uconnect](http://www.jeep.com/uconnect)
- or call 1-877-855-8400

uconnect® allows you to transfer calls between the system and your cellular phone as you enter or exit your vehicle and enables you to mute the system's microphone for private conversation.

The uconnect® phone is driven through your Bluetooth® "Hands-Free Profile" cellular phone. uconnect® features Bluetooth® technology - the global standard that enables different electronic devices to connect to each other without wires or a docking station, so uconnect® phone works no matter where you stow your cellular phone (be

it your purse, pocket, or briefcase), as long as your phone is turned on and has been paired to the vehicle's uconnect® phone. The uconnect® phone allows up to seven cellular phones to be linked to the system. Only one linked (or paired) cellular phone can be used with the system at a time. The system is available in English, Spanish, or French languages.

### *Phone Button*



The rearview mirror contains the microphone for the system (depending on the type of mirror and radio equipped), and either the radio or the mirror has the two control buttons (PHONE Button and VOICE RECOGNITION button) that will enable you to access the system.

### *Voice Recognition Button*



Actual button location may vary with the radio. The individual buttons are described in the "Operation" section.

The uconnect® phone can be used with any Hands-Free Profile certified Bluetooth® cellular phone. See the uconnect® website for supported phones. If your cellular phone supports a different profile (e.g., Headset Profile) you may not be able to use any uconnect® phone features. Refer to your cellular service provider or the phone manufacturer for details.

The uconnect® phone is fully integrated with the vehicle's audio system. The volume of the uconnect® phone can be adjusted either from the radio volume control knob or from the steering wheel radio control (right switch), if so equipped.

The radio display will be used for visual prompts from the uconnect® phone such as "CELL" or caller ID on certain radios.

## Operation

Voice commands can be used to operate the uconnect® phone and to navigate through the uconnect® phone menu structure. Voice commands are required after most uconnect® phone prompts. You will be prompted for a specific command and then guided through the available options.

- Prior to giving a voice command, one must wait for the beep, which follows the "Ready" prompt or another prompt.
- For certain operations, compound commands can be used. For example, instead of saying "Setup" and then "Phone Pairing," the following compound command can be said: "Setup Phone Pairing."
- For each feature explanation in this section, only the combined form of the voice command is given. You can also break the commands into parts and say each part of the command when you are asked for it. For

example, you can use the combined form voice command "Phonebook New Entry," or you can break the combined form command into two voice commands: "Phonebook" and "New Entry." Please remember, the uconnect® phone works best when you talk in a normal conversational tone, as if speaking to someone sitting a few feet/meters away from you.

### **Voice Command Tree**

Refer to "Voice Tree" in this section.

### **Help Command**

If you need assistance at any prompt, or if you want to know your options at any prompt, say "Help" following the beep. The uconnect® phone will play all the options at any prompt if you ask for help.

To activate the uconnect® phone from idle, simply press the PHONE button and follow the audible prompts for directions. All uconnect® phone sessions begin with a press of the PHONE button on the radio control head.

### **Cancel Command**

At any prompt, after the beep, you can say "Cancel" and you will be returned to the main menu. However, in a few instances the system will take you back to the previous menu.

### **Pair (Link) uconnect® phone to a Cellular Phone**

To begin using your uconnect® phone, you must pair your compatible Bluetooth® enabled cellular phone.

To complete the pairing process, you will need to reference your cellular phone Owner's Manual. The uconnect® website may also provide detailed instructions for pairing.

The following are general phone to uconnect® phone pairing instructions:

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Setup Phone Pairing."

- When prompted, after the beep, say "Pair a Phone" and follow the audible prompts.
- You will be asked to say a four-digit Personal Identification Number (PIN), which you will later need to enter into your cellular phone. You can enter any four-digit PIN. You will not need to remember this PIN after the initial pairing process.
- For identification purposes, you will be prompted to give the uconnect® phone a name for your cellular phone. Each cellular phone that is paired should be given a unique phone name.
- You will then be asked to give your cellular phone a priority level between one and seven, with one being the highest priority. You can pair up to seven cellular phones to your uconnect® phone. However, at any given time, only one cellular phone can be in use, connected to your uconnect® phone. The priority allows the uconnect® phone to know which cellular

phone to use if multiple cellular phones are in the vehicle at the same time. For example, if priority three and priority five phones are present in the vehicle, the uconnect® phone will use the priority three cellular phone when you make a call. You can select to use a lower priority cellular phone at any time (refer to "Advanced Phone Connectivity" in this section).

### Dial by Saying a Number

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Dial."
- The system will prompt you to say the number you want to call.
- For example, you can say "234-567-8901".
- The uconnect® phone will confirm the phone number and then dial. The number will appear in the display of certain radios.

## Call by Saying a Name

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Call."
- The system will prompt you to say the name of the person you want to call.
- After the "Ready" prompt and the following beep, say the name of the person you want to call. For example, you can say "John Doe," where John Doe is a previously stored name entry in the uconnect® phonebook or downloaded phonebook. To learn how to store a name in the phonebook, refer to "Add Names to Your uconnect® Phonebook," in the phonebook.
- The uconnect® system will confirm the name and then dial the corresponding phone number, which may appear in the display of certain radios.

## Add Names to Your uconnect® Phonebook

**NOTE:** Adding names to the uconnect® phonebook is recommended when the vehicle is not in motion.

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook New Entry."
- When prompted, say the name of the new entry. Use of long names helps the voice recognition and it is recommended. For example, say "Robert Smith" or "Robert" instead of "Bob."
- When prompted, enter the number designation (e.g., "Home," "Work," "Mobile," or "Pager"). This will allow you to store multiple numbers for each phonebook entry, if desired.
- When prompted, recite the phone number for the phonebook entry that you are adding.

After you are finished adding an entry into the phonebook, you will be given the opportunity to add more phone numbers to the current entry or to return to the main menu.

The uconnect® phone will allow you to enter up to 32 names in the phonebook with each name having up to four associated phone numbers and designations. Each language has a separate 32-name phonebook accessible only in that language. In addition, if equipped and supported by your phone, uconnect® phone automatically downloads your cellular phone's phonebook.

### **Phonebook Download – Automatic Phonebook Transfer From Cellular Phone**

If equipped and specifically supported by your phone, uconnect® phone automatically downloads names (text names) and number entries from the cellular phone's phonebook. Specific Bluetooth® Phones with Phone Book Access Profile may support this feature. See uconnect® website for supported phones.

- To call a name from downloaded (or uconnect®) Phonebook, follow the procedure in “Call by Saying a Name” section.
- Automatic download and update, if supported, begins as soon as the Bluetooth® wireless phone connection is made to the uconnect® phone, for example, after you start the vehicle.
- A maximum of 1000 entries per phone will be downloaded and updated every time a phone is connected to the uconnect® phone.
- Depending on the maximum number of entries downloaded, there may be a short delay before the latest downloaded names can be used. Until then, if available, the previous downloaded phonebook is available for use.
- Only the phonebook of the currently connected cellular phone is accessible.

- Only the cellular phone's phonebook is downloaded. SIM card phonebook is not part of the Mobile phonebook.
- This downloaded phonebook cannot be edited or deleted on the uconnect® phone. These can only be edited on the cellular phone. The changes are transferred and updated to uconnect® phone on the next phone connection.

### Phonebook Download — Single Entry

If equipped and supported by your phone, uconnect® phone allows the user to download entries from their phone via Bluetooth®. To use this feature, press the PHONE button and say "Phonebook Download." The system prompts, "Ready to accept "V" card entry via Bluetooth®..." The system is now ready to accept phonebook entries from your phone using the Bluetooth® Object Exchange Profile (OBEX). Please see your phone Owner's Manual for specific instructions on how to send these entries from your phone.

### NOTE:

- The phone handset must support Bluetooth® OBEX transfers of phonebook entries to use this feature.
- Some phones cannot send phonebook entries if they are already connected to any system via Bluetooth®, and you may see a message on the phone display that the Bluetooth® link is busy. In this case, the user must first disconnect or drop the Bluetooth® connection to the uconnect® phone, and then send the address book entry via Bluetooth®. Please see your phone Owner's Manual for specific instructions on how to drop the Bluetooth® connection.
- If the phonebook entry is longer than 24 characters, it will only use the first 24 characters.

## Edit uconnect® Phonebook Entries

### NOTE:

- Editing names in the phonebook is recommended when the vehicle is not in motion.
- Automatic downloaded phonebook entries cannot be deleted or edited.
- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook Edit."
- You will then be asked for the name of the phonebook entry that you wish to edit.
- Next, choose the number designation (home, work, cellular, or pager) that you wish to edit.
- When prompted, recite the new phone number for the phonebook entry that you are editing.

After you are finished editing an entry in the phonebook, you will be given the opportunity to edit another entry in the phonebook, call the number you just edited, or return to the main menu.

"Phonebook Edit" can be used to add another phone number to a name entry that already exists in the phonebook. For example, the entry John Doe may have a cellular and a home number, but you can add "John Doe's" work number later using the "Phonebook Edit" feature.

## Delete uconnect® Phonebook Entry

**NOTE:** Editing phonebook entries is recommended when the vehicle is not in motion.

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook Delete."



- After you enter the Phonebook Delete menu, you will then be asked for the name of the entry that you wish to delete. You can either say the name of a phonebook entry that you wish to delete or you can say "List Names" to hear a list of the entries in the phonebook from which you choose. To select one of the entries from the list, press the VOICE RECOGNITION button while the uconnect® phone is playing the desired entry and say "Delete."
- After you enter the name, the uconnect® phone will ask you which designation you wish to delete: home, work, cellular, pager, or all. Say the designation you wish to delete.
- Note that only the phonebook entry in the current language is deleted.
- Automatic downloaded phonebook entries cannot be deleted or edited.

### Delete/Erase "All" uconnect® Phonebook Entries

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook Erase All."
- The uconnect® phone will ask you to verify that you wish to delete all the entries from the phonebook.
- After confirmation, the phonebook entries will be deleted.
- Note that only the phonebook in the current language is deleted.
- Automatic downloaded phonebook entries cannot be deleted or edited.

### List All Names in the uconnect® Phonebook

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook List Names."
- The uconnect® phone will play the names of all the phonebook entries, including the downloaded phonebook entries, if available.
- To call one of the names in the list, press the VOICE RECOGNITION button during the playing of the desired name, and say "Call."

**NOTE:** The user can also exercise "Edit" or "Delete" operations at this point.

- The uconnect® phone will then prompt you as to the number designation you wish to call.
- The selected number will be dialed.

### Phone Call Features

The following features can be accessed through the uconnect® phone if the feature(s) are available on your cellular service plan. For example, if your cellular service plan provides three-way calling, this feature can be accessed through the uconnect® phone. Check with your cellular service provider for the features that you have.

#### Answer or Reject an Incoming Call - No Call Currently in Progress

When you receive a call on your cellular phone, the uconnect® phone will interrupt the vehicle audio system, if on, and will ask if you would like to answer the call. Press the PHONE button to accept the call. To reject the call, press and hold the PHONE button until you hear a single beep, indicating that the incoming call was rejected.

### **Answer or Reject an Incoming Call - Call Currently in Progress**

If a call is currently in progress and you have another incoming call, you will hear the same network tones for call waiting that you normally hear when using your cellular phone. Press the PHONE button to place the current call on hold and answer the incoming call.

**NOTE:** The uconnect® phone compatible phones in the market today do not support rejecting an incoming call when another call is in progress. Therefore, the user can only answer an incoming call or ignore it.

### **Making a Second Call While Current Call is in Progress**

To make a second call while you are currently on a call, press the VOICE RECOGNITION button and say "Dial" or "Call" followed by the phone number or phonebook entry you wish to call. The first call will be on hold while the second call is in progress. To go back to the first call,

refer to "Toggling Between Calls" in this section. To combine two calls, refer to "Conference Call" in this section.

### **Place/Retrieve a Call From Hold**

To put a call on hold, press the PHONE button until you hear a single beep. This indicates that the call is on hold. To bring the call back from hold, press and hold the PHONE button until you hear a single beep.

### **Toggling Between Calls**

If two calls are in progress (one active and one on hold), press the PHONE button until you hear a single beep, indicating that the active and hold status of the two calls have switched. Only one call can be placed on hold at a time.

### Conference Call

When two calls are in progress (one active and one on hold), press and hold the PHONE button until you hear a double beep indicating that the two calls have been joined into one conference call.

### Three-Way Calling

To initiate three-way calling, press the VOICE RECOGNITION button while a call is in progress, and make a second phone call, as described under "Making a Second Call While Current Call is in Progress." After the second call has established, press and hold the PHONE button until you hear a double beep, indicating that the two calls have been joined into one conference call.

### Call Termination

To end a call in progress, momentarily press the PHONE button. Only the active call(s) will be terminated and if there is a call on hold, it will become the new active call. If the active call is terminated by the far end, a call on hold may not become active automatically. This is cell phone-dependent. To bring the call back from hold, press and hold the PHONE button until you hear a single beep.

### Redial

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Redial."
- The uconnect® phone will call the last number that was dialed from your cellular phone.

**NOTE:** This may not be the last number dialed from the uconnect® phone.

## Call Continuation

Call continuation is the progression of a phone call on the uconnect® phone after the vehicle ignition key has been switched to OFF. Call continuation functionality available on the vehicle can be any one of three types:

- After the ignition key is switched to OFF, a call can continue on the uconnect® phone either until the call ends, or until the vehicle battery condition dictates cessation of the call on the uconnect® phone and transfer of the call to the cellular phone.
- After the ignition key is switched to OFF, a call can continue on the uconnect® phone for a certain duration, after which the call is automatically transferred from the uconnect® phone to the cellular phone.
- An active call is automatically transferred to the cellular phone after the ignition key is switched to OFF.

## uconnect® phone Features

### Language Selection

To change the language that the uconnect® phone is using:

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say the name of the language you wish to switch to English, Espanol, or Francais.
- Continue to follow the system prompts to complete the language selection.

After selecting one of the languages, all prompts and voice commands will be in that language.

**NOTE:** After every uconnect® phone language change operation, only the language-specific 32-name phone-book is usable. The paired phone name is not language-specific and usable across all languages.

### Emergency Assistance

If you are in an emergency and the cellular phone is reachable:

- Pick up the phone and manually dial the emergency number for your area.

If the phone is not reachable and the uconnect® phone is operational, you may reach the emergency number as follows:

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Emergency" and the uconnect® phone will instruct the paired cellular phone to call the emergency number. This feature is supported in the U.S., Canada, and Mexico.

#### NOTE:

- The emergency number dialed is based on the country where the vehicle is purchased (911 for the U.S. and

Canada and 060 for Mexico). The number dialed may not be applicable with the available cellular service and area.

- If supported, this number may be programmable on some systems. To do this, press the PHONE button and say 'Setup', followed by 'Emergency'.
- The uconnect® phone does slightly lower your chances of successfully making a phone call as to that for the cellular phone directly.

#### **WARNING!**

**Your phone must be turned on and paired to the uconnect® phone to allow use of this vehicle feature in emergency situations, when the cellular phone has network coverage and stays paired to the uconnect® phone.**

## Towing Assistance

If you need towing assistance:

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Towing Assistance."

### NOTE:

- The towing assistance number dialed is based on the country where the vehicle is purchased (1-800-528-2069 for the U.S., 1-877-213-4525 for Canada, 55-14-3454 for Mexico City and 1-800-712-3040 for outside Mexico City in Mexico).
- If supported, this number may be programmable on some systems. To do this, press the PHONE button and say "Setup", followed by "Towing Assistance".

## Paging

To learn how to page, refer to "Working with Automated Systems." Paging works properly except for pagers of certain companies, which time out a little too soon to work properly with the uconnect® phone.

## Voice Mail Calling

To learn how to access your voice mail, refer to "Working with Automated Systems."

## Working with Automated Systems

This method is used in instances where one generally has to press numbers on the cellular phone keypad while navigating through an automated telephone system.

You can use your uconnect® phone to access a voice mail system or an automated service, such as a paging service or automated customer service line. Some services require immediate response selection. In some instances, that may be too quick for use of the uconnect® phone.

When calling a number with your uconnect® phone that normally requires you to enter in a touch-tone sequence on your cellular phone keypad, you can press the VOICE RECOGNITION button and say the sequence you wish to enter, followed by the word "Send." For example, if required to enter your PIN followed with a pound, (3 7 4 6 #), you can press the VOICE RECOGNITION button and say, "3 7 4 6 # Send." Saying a number, or sequence of numbers, followed by "Send," is also to be used for navigating through an automated customer service center menu structure, and to leave a number on a pager.

You can also send stored uconnect® phonebook entries as tones for fast and easy access to voice mail and pager entries. To use this feature, dial the number you wish to call and then press the VOICE RECOGNITION button and say, "Send." The system will prompt you to enter the name or number and say the name of the phonebook entry you wish to send. The uconnect® phone will then

send the corresponding phone number associated with the phonebook entry, as tones over the phone.

**NOTE:**

- You may not hear all of the tones due to cellular phone network configurations. This is normal.
- Some paging and voice mail systems have system time out settings that are too short and may not allow the use of this feature.

**Barge In - Overriding Prompts**

The "Voice Recognition" button can be used when you wish to skip part of a prompt and issue your voice recognition command immediately. For example, if a prompt is asking "Would you like to pair a phone, clear a...," you could press the VOICE RECOGNITION button and say, "Pair a Phone" to select that option without having to listen to the rest of the voice prompt.



### Turning Confirmation Prompts ON/OFF

Turning confirmation prompts off will stop the system from confirming your choices (e.g., the uconnect® phone will not repeat a phone number before you dial it).

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Setup Confirmations." The uconnect® phone will play the current confirmation prompt status and you will be given the choice to change it.

### Phone and Network Status Indicators

If available on the radio and/or on a premium display such as the instrument panel cluster, and supported by your cellular phone, the uconnect® phone will provide notification to inform you of your phone and network status when you are attempting to make a phone call using uconnect® phone. The status is given for roaming, network signal strength, phone battery strength, etc.

### Dialing Using the Cellular Phone Keypad

You can dial a phone number with your cellular phone keypad and still use the uconnect® phone (while dialing via the cellular phone keypad, the user must exercise caution and take precautionary safety measures). By dialing a number with your paired Bluetooth® cellular phone, the audio will be played through your vehicle's audio system. The uconnect® phone will work the same as if you dial the number using voice recognition.

**NOTE:** Certain brands of cellular phones do not send the dial ring to the uconnect® phone to play it on the vehicle audio system, so you will not hear it. Under this situation, after successfully dialing a number the user may feel that the call did not go through even though the call is in progress. Once your call is answered, you will hear the audio.

### **Mute/Un-Mute (Mute OFF)**

When you mute the uconnect® phone, you will still be able to hear the conversation coming from the other party, but the other party will not be able to hear you. In order to mute the uconnect® phone:

- Press the VOICE RECOGNITION button.
- Following the beep, say "Mute."

In order to un-mute the uconnect® phone:

- Press the VOICE RECOGNITION button.
- Following the beep, say "Mute off."

### **Advanced Phone Connectivity**

#### **Transfer Call to and from Cellular Phone**

The uconnect® phone allows ongoing calls to be transferred from your cellular phone to the uconnect® phone without terminating the call. To transfer an ongoing call from your uconnect® phone paired cellular phone to the

uconnect® phone or vice versa, press the VOICE RECOGNITION button and say "Transfer Call."

#### **Connect or Disconnect Link Between the uconnect® phone and Cellular Phone**

Your cellular phone can be paired with many different electronic devices, but can only be actively "connected" with one electronic device at a time.

If you would like to connect or disconnect the Bluetooth® connection between a uconnect® phone paired cellular phone and the uconnect® phone, follow the instructions described in your cellular phone User's Manual.

#### **List Paired Cellular Phone Names**

- Press the PHONE button to begin.
- After the "Ready" prompt and the following beep, say "Setup Phone Pairing."
- When prompted, say "List Phones."

- The uconnect® phone will play the phone names of all paired cellular phones in order from the highest to the lowest priority. To “select” or “delete” a paired phone being announced, press the VOICE RECOGNITION button and say “Select” or “Delete.” Also, see the next two sections for an alternate way to “select” or “delete” a paired phone.

### Select Another Cellular Phone

This feature allows you to select and start using another phone paired with the uconnect® phone.

- Press the PHONE button to begin.
- After the “Ready” prompt and the following beep, say “Setup Select Phone” and follow the prompts.
- You can also press the VOICE RECOGNITION button at any time while the list is being played, and then choose the phone that you wish to select.

- The selected phone will be used for the next phone call. If the selected phone is not available, the uconnect® phone will return to using the highest priority phone present in or near (approximately within 30 ft (9 m)) the vehicle.

### Delete uconnect® phone Paired Cellular Phones

- Press the PHONE button to begin.
- After the “Ready” prompt and the following beep, say “Setup Phone Pairing.”
- At the next prompt, say “Delete” and follow the prompts.
- You can also press the VOICE RECOGNITION button at any time while the list is being played, and then choose the phone you wish to delete.

## Things You Should Know About Your uconnect® phone

### uconnect® phone Tutorial

To hear a brief tutorial of the system features, press the PHONE button and say “uconnect® Tutorial.”

### Voice Training

For users experiencing difficulty with the system recognizing their voice commands or numbers, the uconnect® phone Voice Training feature may be used. To enter this training mode, follow one of the two following procedures:

From outside the uconnect® phone mode (e.g., from radio mode):

- Press and hold the VOICE RECOGNITION button for five seconds until the session begins, or,
- Press the VOICE RECOGNITION button and say the “Setup, Voice Training” command.

Repeat the words and phrases when prompted by the uconnect® phone. For best results, the Voice Training session should be completed when the vehicle is parked with the engine running, all windows closed, and the blower fan switched off.

This procedure may be repeated with a new user. The system will adapt to the last trained voice only.

To restore the Voice Recognition system to factory default settings, enter the Voice Training session via the above procedure and follow the prompts.

### Voice Recognition (VR)

- For best performance, adjust the rearview mirror to provide at least ½ in (1 cm) gap between the overhead console (if equipped) and the mirror.
- Always wait for the beep before speaking.

- Speak normally, without pausing, just as you would speak to a person sitting a few feet/meters away from you.
- Make sure that no one other than you is speaking during a voice recognition period.
- Performance is maximized under:
  - low-to-medium blower setting,
  - low-to-medium vehicle speed,
  - low road noise,
  - smooth road surface,
  - fully closed windows,
  - dry weather condition.
- Even though the system is designed for users speaking in North American English, French, and Spanish accents, the system may not always work for some.
- When navigating through an automated system such as voice mail, or when sending a page, at the end of speaking the digit string, make sure to say "Send."
- Storing names in the phonebook when the vehicle is not in motion is recommended.
- It is not recommended to store similar sounding names in the uconnect® phonebook.
- Phonebook (Downloaded and uconnect® phone Local) name recognition rate is optimized when the entries are not similar.
- You can say "O" (letter "O") for "0" (zero). "800" must be spoken "eight-zero-zero."
- Even though international dialing for most number combinations is supported, some shortcut dialing number combinations may not be supported.
- In a convertible vehicle, system performance may be compromised with the convertible top down.

### Far End Audio Performance

- Audio quality is maximized under:
  - low-to-medium blower setting,
  - low-to-medium vehicle speed,
  - low road noise,
  - smooth road surface,
  - fully closed windows,
  - dry weather conditions, and
  - operation from the driver's seat.
- Performance, such as audio clarity, echo, and loudness to a large degree rely on the phone and network, and not the uconnect® phone.

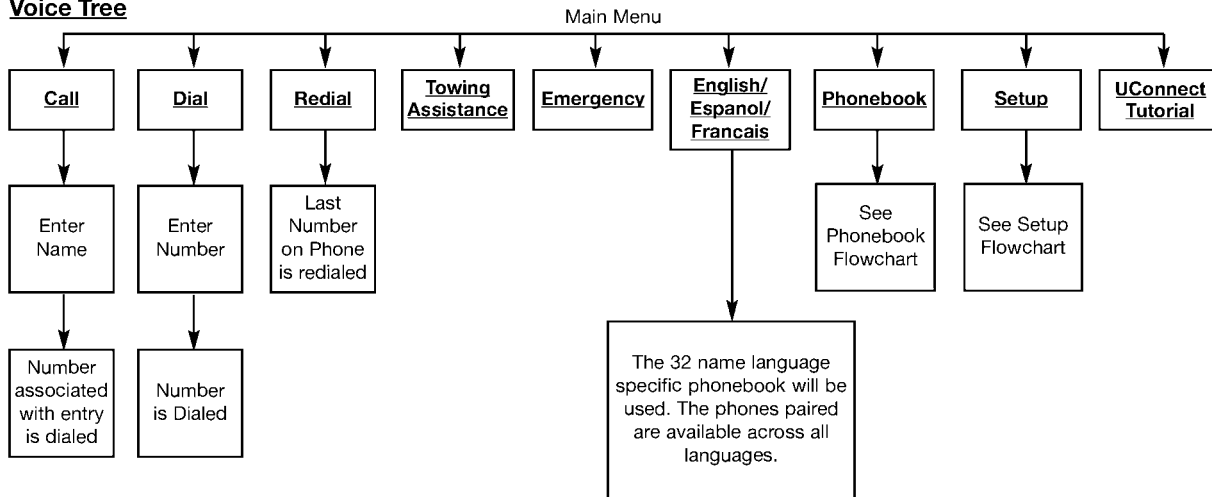
- Echo at the far end can sometimes be reduced by lowering the in-vehicle audio volume.
- In a convertible vehicle, system performance may be compromised with the convertible top down.

### Bluetooth® Communication Link

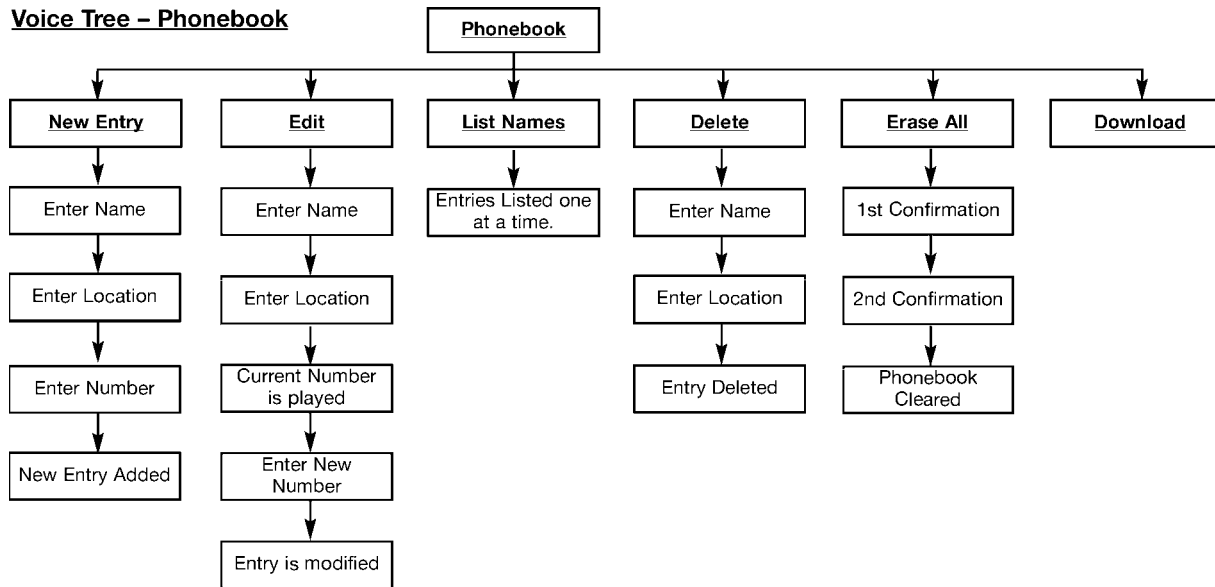
Cellular phones have been found to lose connection to the uconnect® phone. When this happens, the connection can generally be reestablished by switching the phone off/on. Your cellular phone is recommended to remain in Bluetooth® ON mode.

### Power-Up

After switching the ignition key from OFF to either the ON or ACC position, or after a language change, you must wait at least five seconds prior to using the system.

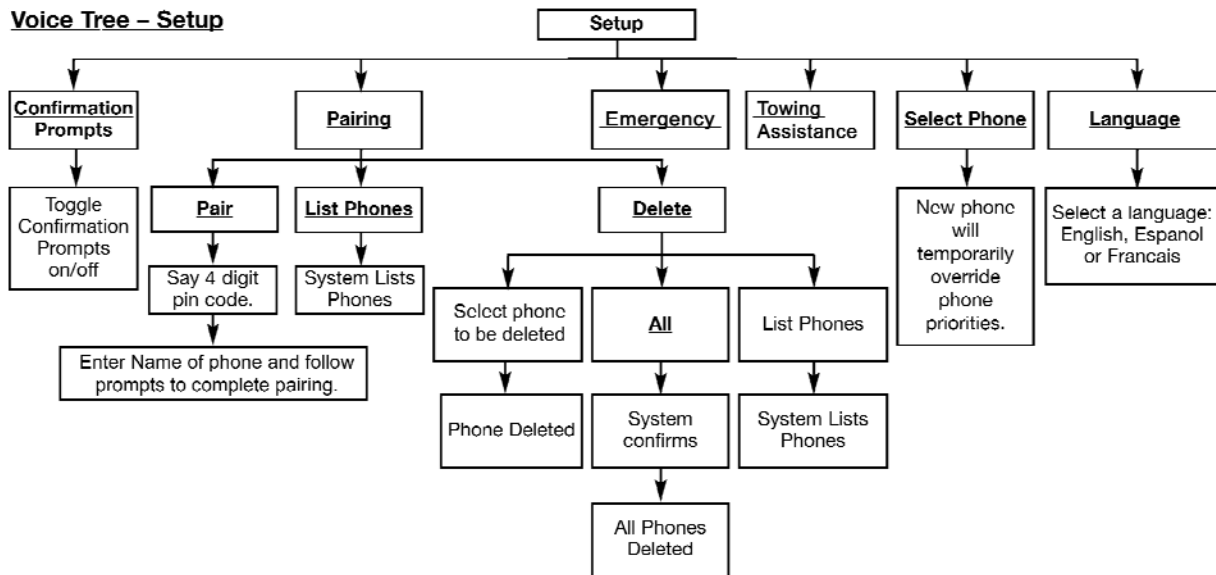
**Voice Tree**

**Note:** Available Voice commands are shown in bold face and are underlined.

**Voice Tree – Phonebook**

**Note:** Available Voice commands are shown in bold face and are underlined.



**Voice Tree – Setup**

**Note:** Available Voice commands are shown in bold face and are underlined.

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Voice Commands	
Primary	Alternate(s)
zero	
one	
two	
three	
four	
five	
six	
seven	
eight	
nine	
star (*)	
plus (+)	
pound (#)	
add location	
all	

Voice Commands	
Primary	Alternate(s)
call	
cancel	
confirmation prompts	
continue	
delete	
dial	
download	
edit	
emergency	
English	
erase all	
Espanol	
Francais	
help	
home	

Voice Commands	
Primary	Alternate(s)
language	
list names	
list phones	
mobile	
mute	
mute off	
new entry	
no	
pager	
pair a phone	
phone pairing	pairing
phonebook	phone book
previous	
record again	
redial	

Voice Commands	
Primary	Alternate(s)
return to main menu	return or main menu
select phone	select
send	
set up	phone settings or phone set up
towing assistance	
transfer call	
uconnect® Tutorial	
try again	
voice training	
work	
yes	

### General Information

This device complies with Part 15 of the FCC rules and RSS 210 of Industry Canada. Operation is subject to the following conditions:

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

### VOICE RECOGNITION (VR) SYSTEM — IF EQUIPPED

#### Voice Recognition (VR) System Operation



This Voice Recognition system allows you to control your AM, FM radio, satellite radio, disc player, and a memo recorder.

**NOTE:** Take care to speak into the Voice Interface System as calmly and normally as possible. The ability of the Voice Interface System to recognize user voice commands may be negatively affected by rapid speaking or a raised voice level.

#### **WARNING!**

**Any voice commanded system should be used only in safe driving conditions and all attention should be kept on the roadway ahead. Failure to do so may result in an accident causing serious injury or death.**

When you press the VR button, you will hear a beep. The beep is your signal to give a command.

**NOTE:** If you do not say a command within a few seconds, the system will present you with a list of options.

If you ever wish to interrupt the system while it lists options, press the VR button, listen for the beep, and say your command.

Pressing the VR button while the system is speaking is known as “barging in.” The system will be interrupted, and after the beep, you can add or change commands. This will become helpful once you start to learn the options.

**NOTE:** At any time, you can say the words “Cancel”, “Help”, or “Main Menu”.

These commands are universal and can be used from any menu. All other commands can be used depending upon the active application.

For example, if you are in the disc menu and you are listening to FM radio, you can speak commands from the disc menu or from the FM radio menu.

When using this system, you should speak clearly and at a normal speaking volume.

The system will best recognize your speech if the windows are closed, and the heater/air conditioning fan is set to low.

At any point, if the system does not recognize one of your commands, you will be prompted to repeat it.

To hear the first available Menu, press the VR button and say “Help” or “Main Menu”.

## Commands

The Voice Recognition (VR) system understands two types of commands. Universal commands are available at all times. Local commands are available if the supported radio mode is active.

## Changing the Volume

1. Start a dialogue by pressing the VR button.
2. Say a command (e.g., “Help”).
3. Use the ON/OFF VOLUME rotary knob to adjust the volume to a comfortable level while the Voice Recognition (VR) system is speaking. Please note the volume setting for VR is different than the audio system.

## Main Menu

Start a dialogue by pressing the VR button. You may say “Main Menu” to switch to the main menu.

In this mode, you can say the following commands:

- “Radio” (to switch to the radio mode)
- “Disc” (to switch to the disc mode)
- “Memo” (to switch to the memo recorder)
- “System Setup” (to switch to system setup)

## Radio AM (or Radio Long Wave or Radio Medium Wave — If Equipped)

To switch to the AM band, say “AM” or “Radio AM”. In this mode, you may say the following commands:

- “Frequency” (to change the frequency)
- “Next Station” (to select the next station)
- “Previous Station” (to select the previous station)
- “Radio Menu” (to switch to the radio menu)
- “Main Menu” (to switch to the main menu)

### Radio FM

To switch to the FM band, say “FM” or “Radio FM”. In this mode, you may say the following commands:

- “Frequency” (to change the frequency)
- “Next Station” (to select the next station)
- “Previous Station” (to select the previous station)
- “Radio Menu” (to switch to the radio menu)
- “Main Menu” (to switch to the main menu)

### Satellite Radio

To switch to satellite radio mode, say “Sat” or “Satellite Radio”. In this mode, you may say the following commands:

- “Channel Number” (to change the channel by its spoken number)
- “Next Channel” (to select the next channel)

- “Previous Channel” (to select the previous channel)
- “List Channel” (to hear a list of available channels)
- “Select Name” (to say the name of a channel)
- “Radio Menu” (to switch to the radio menu)
- “Main Menu” (to switch to the main menu)

### Disc

To switch to the disc mode, say “Disc”. In this mode, you may say the following commands:

- “Track” (#) (to change the track)
- “Next Track” (to play the next track)
- “Previous Track” (to play the previous track)
- “Main Menu” (to switch to the main menu)

## Memo

To switch to the voice recorder mode, say “Memo”. In this mode, you may say the following commands:

- “New Memo” (to record a new memo) — During the recording, you may press the VR button to stop recording. You proceed by saying one of the following commands:
  - “Save” (to save the memo)
  - “Continue” (to continue recording)
  - “Delete” (to delete the recording)
- “Play Memos” (to play previously recorded memos) — During the playback you may press the VR button to stop playing memos. You proceed by saying one of the following commands:
  - “Repeat” (to repeat a memo)
  - “Next” (to play the next memo)

- “Previous” (to play the previous memo)

- “Delete” (to delete a memo)

- “Delete All” (to delete all memos)

## System Setup

To switch to system setup, say “Setup”. In this mode, you may say the following commands:

- “Language German”
- “Language Dutch”
- “Language Italian”
- “Language English”
- “Language French”
- “Language Spanish”
- “Tutorial”
- “Voice Training”



**NOTE:** Keep in mind that you have to press the VR button first and wait for the beep before speaking the “Barge In” commands.

### Voice Training

For users experiencing difficulty with the system recognizing their voice commands or numbers, uconnect® phone Voice Training feature may be used.

1. Press the VR button, say “System Setup” and once you are in that menu then say “Voice Training.” This will train your own voice to the system and will improve recognition.

2. Repeat the words and phrases when prompted by uconnect® phone. For best results, the Voice Training session should be completed when the vehicle is parked, engine running, all windows closed, and the blower fan switched off. This procedure may be repeated with a new user. The system will adapt to the last trained voice only.

### SEATS

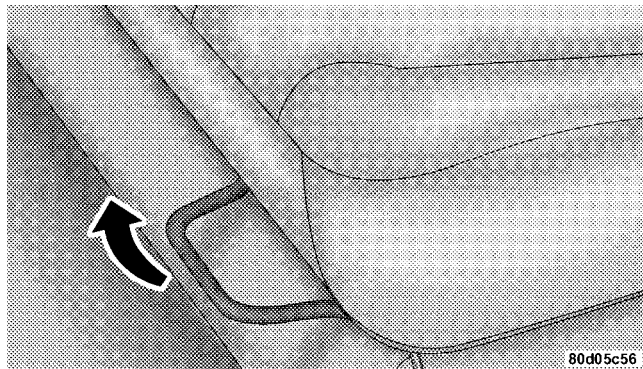
Seats are a primary part of the Occupant Restraint System of the vehicle. Proper use of the seats is needed for safe operation of the vehicle.

#### WARNING!

- **It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.**
- **Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.**
- **Be sure everyone in your vehicle is in a seat and using a seat belt properly.**

**Manual Seat Adjuster — If Equipped**

The front seats are adjustable, forward or rearward. The adjustment handle is located at the front edge of each seat cushion. Pull upward on the handle and slide the seat, forward or rearward, to the desired position. Using body pressure, move forward and rearward on the seat to be sure the seat is locked into position.



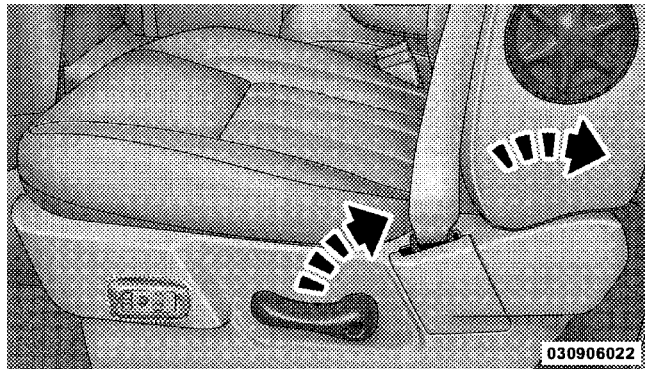
Manual Seat Adjuster

**WARNING!**

Adjusting a seat while the vehicle is moving is dangerous. The sudden movement of the seat could cause you to lose control. The seat belt might not be properly adjusted and you could be injured. Only adjust a seat while the vehicle is parked.

### Reclining Seats (Quad Cab® Models)

The recliner handle is located on the outside of the seat cushion. Pull upward on the handle to release the seatback, lean forward or rearward to the desired position.



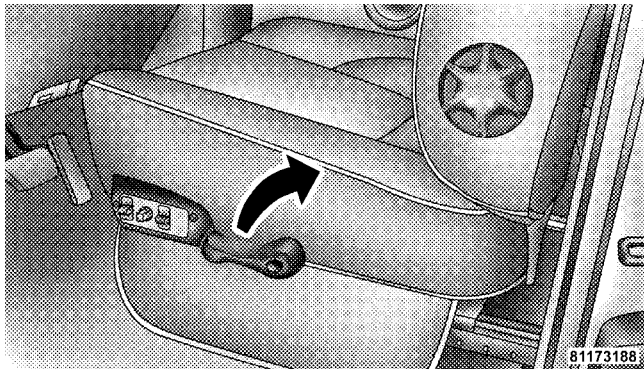
Seat Recliner Handle

### WARNING!

You can be seriously, even fatally, injured riding in a seat with the seatback reclined. Do not ride with the seatback reclined so that the shoulder belt is no longer resting against your chest. If you ride in this position, the shoulder harness will no longer be restraining you. In a collision you could slide under the seat belt and receive serious or fatal injuries. Only recline in a seat when the vehicle is parked.

### Reclining Seats (2500/3500 Models)

The recliner handle is located on the outside of the seat cushion. Pull upward on the handle to release the seatback, lean forward or rearward to the desired position.



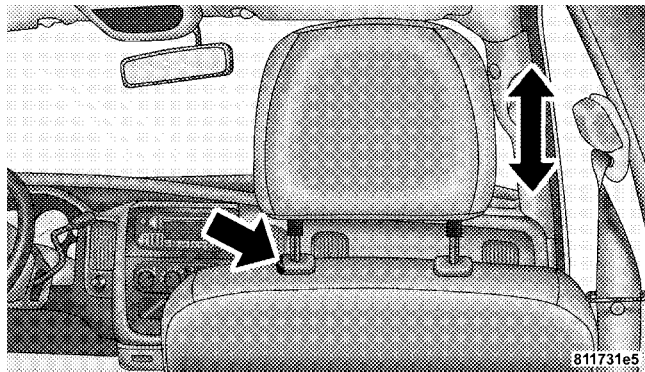
Seat Recliner Handle

### WARNING!

You can be seriously, even fatally, injured riding in a seat with the seatback reclined. Do not ride with the seatback reclined so that the shoulder belt is no longer resting against your chest. If you ride in this position, the shoulder harness will no longer be restraining you. In a collision you could slide under the seat belt and receive serious or fatal injuries. Only recline in a seat when the vehicle is parked.

### Adjustable Head Restraints

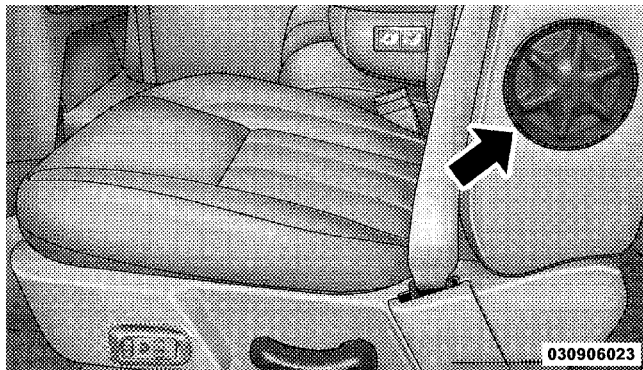
Head restraints can reduce the risk of neck injury in the event of a rear impact. To adjust, pull upward on the head restraints so that the upper edge is as high as practical, at least to the level of the ears. To lower the head restraint, push inward on the button and push down on the head restraint.



Head Restraints

### Manual Lumbar Support — If Equipped

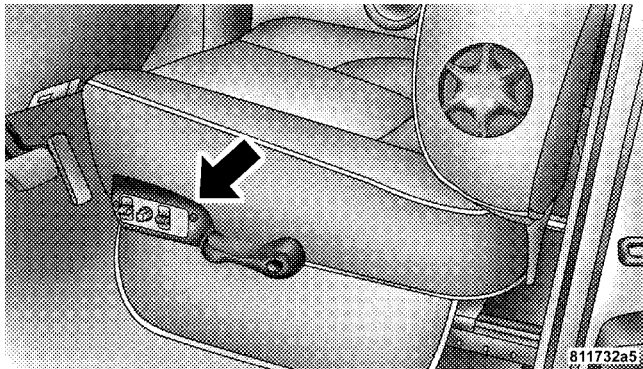
The lumbar control knobs are located on the left-side of the driver's seatback and the right-side of the passenger's seatback. Rotate the lumbar control knobs to increase or decrease the lumbar support.



Manual Lumbar Adjustment

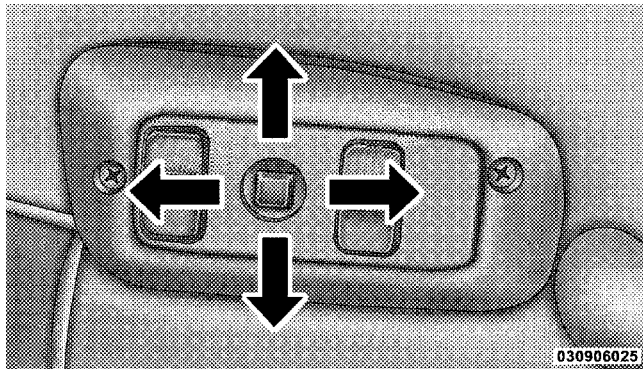
### Power Seats — If Equipped

The power seat controls are located on the outboard side of the front seat cushions. Three switches control the seat movement.



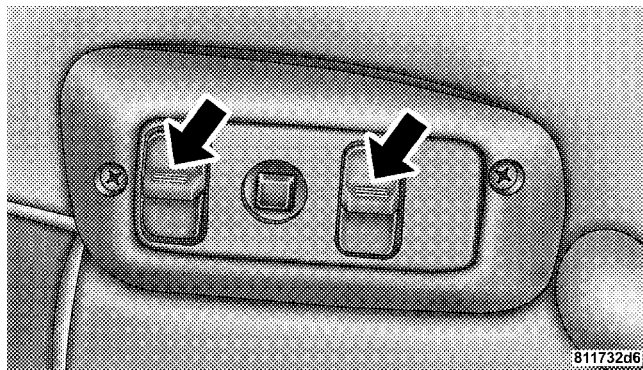
Power Seat Switch

The four-way switch is used to move the seat cushion forward or backward, or to adjust the seat height up or down.



Power Seat Movement

The angle, or tilting, of the seat cushion can be adjusted using the two toggle switches. Use the forward switch to raise or lower the front seat cushion. Use the rear switch to raise or lower the rear of the seat cushion.



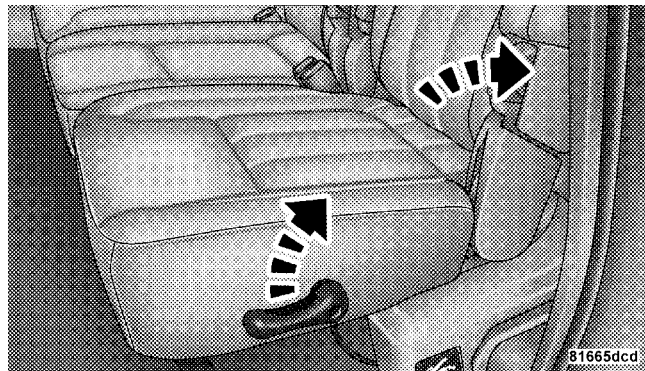
Tilt Adjustment

**CAUTION!**

Do not place anything under a power seat. It may cause damage to the seat or the seat controls.

**Rear Seat Features****Reclining Rear Seats — If Equipped**

The recliner handle is located on the outside of the seat cushion. Pull upward on the handle, to release the seatback, and lean forward or rearward to the desired position.

**3**

Rear Seat Recliner Handle

### Folding Rear Seat (Table Mode) — If Equipped

Both the left and right rear seatbacks can be folded down and used as a table.

To fold down either rear seatback:

1. Lift the handle, located next to the head restraint.

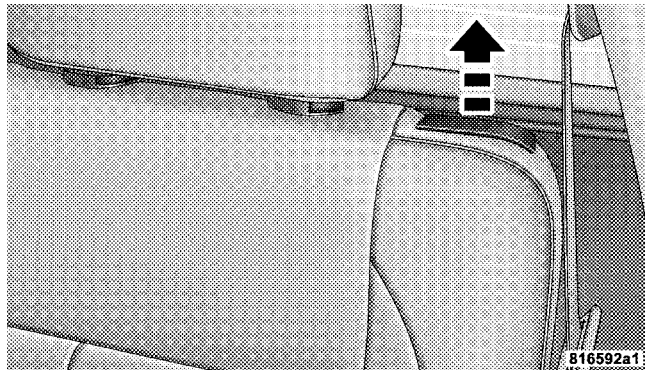


Table Mode Handle

2. Fold the seatback forward.

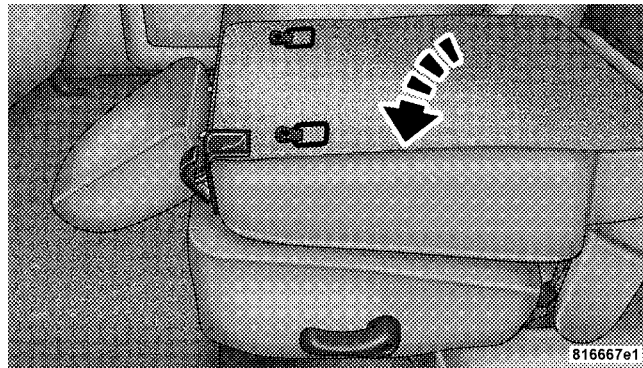


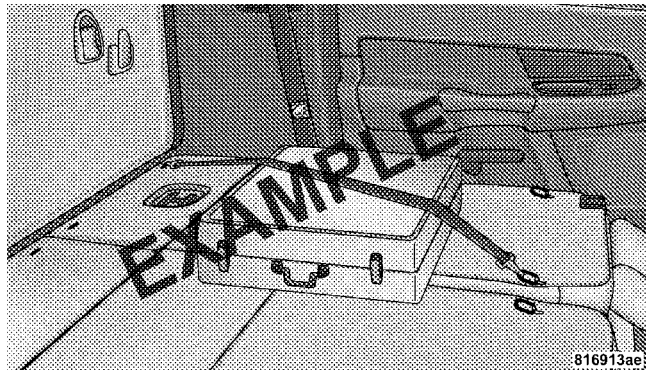
Table Mode

3. Lift the seatback, to return the seat to the upright position. Be sure the seatback is locked in place.



### Folding Rear Seat (Kneel Mode) — If Equipped

Both the left and right rear seats can be folded flat (kneel mode) and used for carrying cargo. Each of the rear seatbacks provide two D-rings and rear storage bin lids with two slotted cutouts. Use a cargo tie-downs to secure cargo.



Securing Cargo

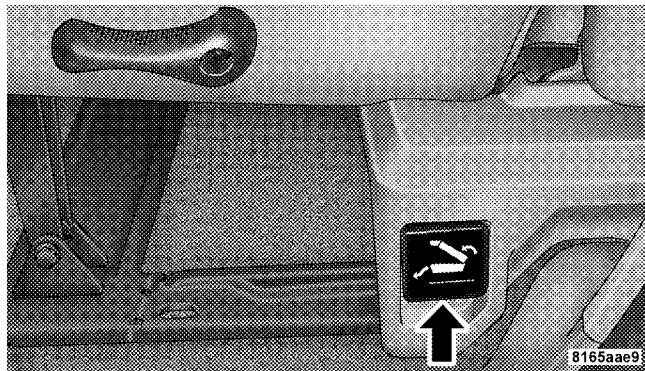
### WARNING!

- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.
- Cargo must be securely tied down before driving your vehicle. Improperly secured cargo can fly around in a sudden stop and strike someone in the vehicle, causing serious injury or possible death. Secure cargo with a cargo tie-down using the D-rings provided on the back of the seats and the slotted cutouts in the rear storage bin lid.

**NOTE:** The rear seat will drop and move forward in “kneel mode”.

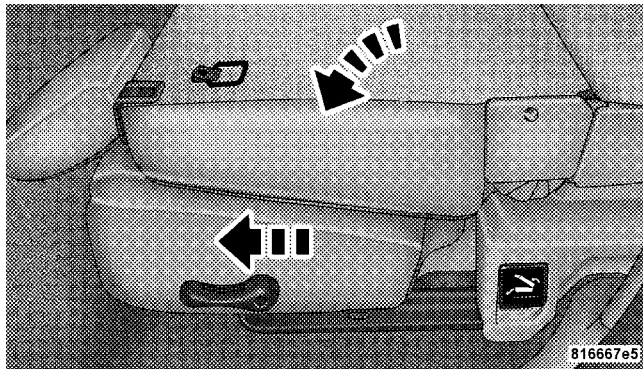
To fold either rear seat flat:

1. Lift the handle, located on the outboard side of the seat.



**Kneel Mode Handle**

2. Fold the seatback down and push the seat forward.



**Kneel Mode**

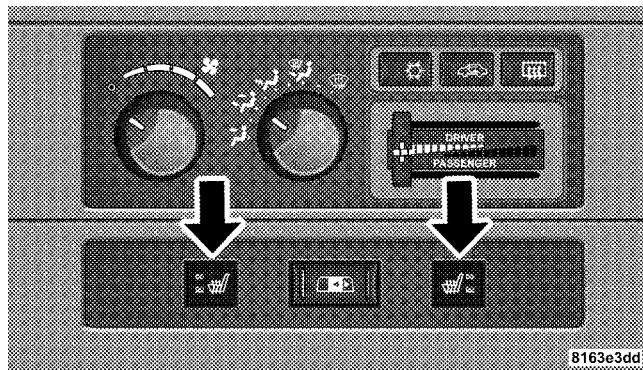
3. Lift the seatback, to return the seat to the upright position. Be sure the seat is locked in place.

**WARNING!**

Be certain that the seatback is securely locked into position. If the seatback is not securely locked into position the seat will not provide the proper stability for child seats and/or passengers. An improperly latched seat could cause serious injury.

**Heated Seats — If Equipped**

This feature heats the front driver and passenger seats. The controls for front heated seats are located in the instrument panel under the climate controls.

**Heated Seat Switches**

After turning the ignition ON, you can choose from High, Low, or Off heat settings. Amber indicator lights in each switch indicate the level of heat in use. Two indicator lights will illuminate for High, one for Low, and none for Off.



Press the switch once to select High-level heating. Press the switch a second time to select Low-level heating. Press the switch a third time to shut the heating elements Off.

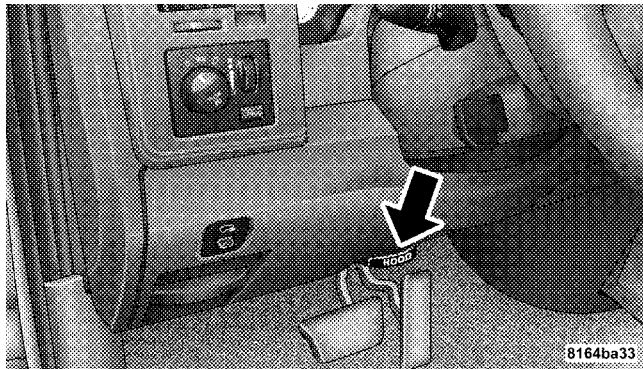
### WARNING!

- Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion or other physical condition must exercise care when using the seat heater. It may cause burns even at low temperatures, especially if used for long periods of time.
- Do not place anything on the seat that insulates against heat, such as a blanket or cushion. This may cause the seat heater to overheat.

### TO OPEN AND CLOSE THE HOOD

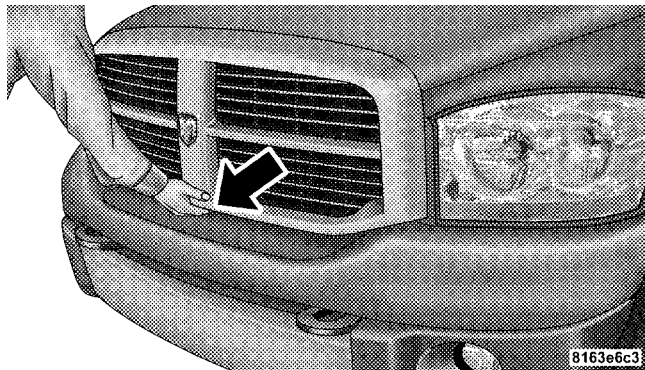
To open the hood, two latches must be released.

1. Pull the hood release lever located below the steering wheel at the base of the instrument panel.



Hood Release Lever

2. Reach into the opening beneath the center of the grille and push upward on the safety latch to release it before raising the hood.



Safety Latch

### CAUTION!

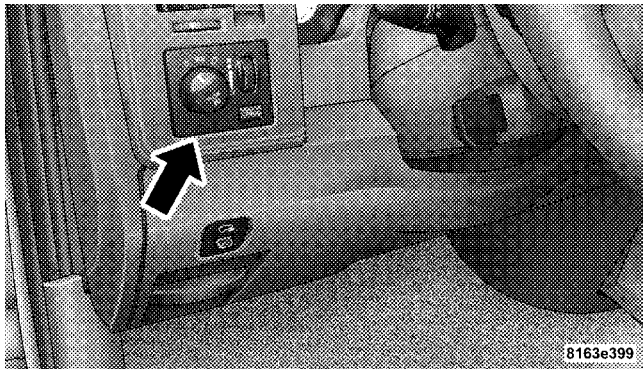
To prevent possible damage, do not slam the hood to close it. Use a firm downward push at the front center of the hood to ensure that both latches engage.

### WARNING!

If the hood is not fully latched, it could fly up when the vehicle is moving and block your forward vision. Be sure all hood latches are latched fully before driving.

## LIGHTS

The headlight switch is located on instrument panel to the left of the steering wheel.



Headlight Switch Location

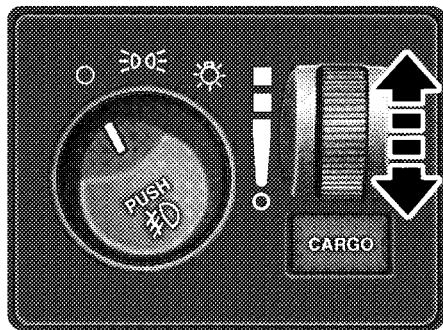
## Interior Lights

Courtesy and dome lights are turned on when the front doors are opened, when the dimmer control (rotating

wheel on the right side of the switch) is rotated to the upward detent position, or by pressing the UNLOCK button on the Remote Keyless Entry (RKE) transmitter (if equipped).

When a door is open and the interior lights are on, rotating the dimmer control all the way down to the off detent will cause all the interior lights to go out. This is also known as the "Party" mode because it allows the doors to stay open for extended periods of time without discharging the vehicle's battery.

The brightness of the instrument panel lighting can be regulated by rotating the dimmer control up (brighter) or down (dimmer). When the headlights are on you can supplement the brightness of the odometer, trip odometer, radio and overhead console by rotating the control up until you hear a click. This feature is termed the "Parade" mode and is useful when headlights are required during the day.



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### Dimmer Control

#### Battery Saver

To protect the life of your vehicle's battery, load shedding is provided for both the interior and exterior lights.

If the ignition is OFF and any door is left ajar, or if the dimmer control is rotated upwards for approximately 10 minutes, the interior lights will automatically turn off.

If the headlights are left on, or turned on, when the ignition is turned OFF, the headlights will automatically turn off after approximately eight minutes.

**NOTE:** Battery saver mode is cancelled if the ignition is ON.

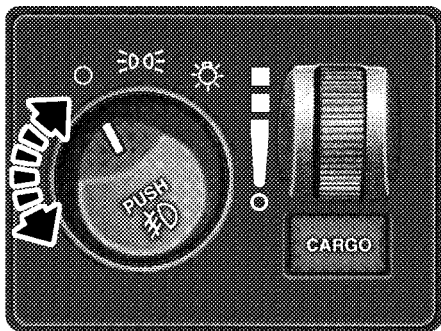
#### Headlight Delay

To aid in your exit, your vehicle is equipped with a headlight delay that will leave the headlights on for approximately 90 seconds. This delay is initiated when the ignition is turned OFF while the headlight switch is on, and then the headlight switch is cycled off. Headlight delay can be cancelled by either turning the headlight switch on then off, or by turning the ignition ON.

## Headlights, Parking Lights and Panel Lights



When the headlight switch is rotated to the first position, the parking lights, taillights, side marker lights, license plate light and instrument panel lights are all turned on. The headlights will turn on when the switch is rotated to the second position.



Headlight Switch Rotation

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Your vehicle is equipped with plastic headlight lenses that are lighter and less susceptible to stone breakage than glass. Plastic is not as scratch resistant as glass and therefore different lens cleaning procedures must be followed. To minimize the possibility of scratching the lenses and reducing light output, avoid wiping with a dry cloth. To remove road dirt, wash the lenses with a mild soap solution followed by rinsing.

**NOTE:** Do not use abrasive cleaning components, solvents, steel wool or other abrasive materials to clean the lenses.

## Daytime Running Lights (Canada Only and Fleet Vehicles)

The headlights on your vehicle will illuminate when the engine is started and the transmission is in any gear except PARK. This provides a constant "Lights On" condition until the ignition is turned OFF or the parking brake is applied. The lights illuminate at less than 50% of their normal intensity. If a turn signal is activated, the



DRL lamp on the same side of the vehicle will turn off for the duration of the turn signal activation. Once the turn signal is no longer active, the DRL lamp will illuminate.

### Lights-on Reminder

If the headlights, parking lights or cargo lights are left on after the ignition is turned OFF, a chime will sound when the driver's door is opened.

### Fog Lights — If Equipped

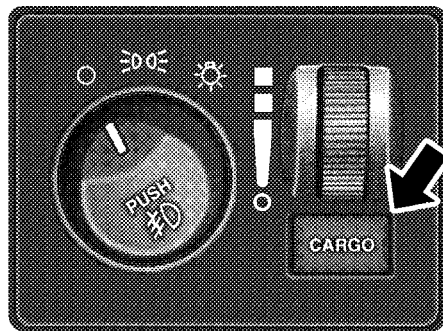
**#D** The fog lights are turned on by placing the headlight rotary control in the parking light or low beam headlight position and pushing in the headlight rotary control. An indicator light, located in the instrument cluster, will illuminate when the fog lights are on. The fog lights will turn off when the switch is pushed a second time, when the headlight switch is rotated to the off position, or the high beam headlights are activated.

**NOTE:** The fog lights will only operate when the parking lights or low beam headlights are on.

### Cargo Light — If Equipped

The cargo lights are turned on by pressing the cargo button. The interior lights will also turn on when the cargo lights are on. The cargo lights will also turn ON, for approximately 30 seconds, as part of the Illuminated Entry feature when the UNLOCK button is pressed on the Remote Keyless Entry (RKE) transmitter.

3



Cargo Light Switch

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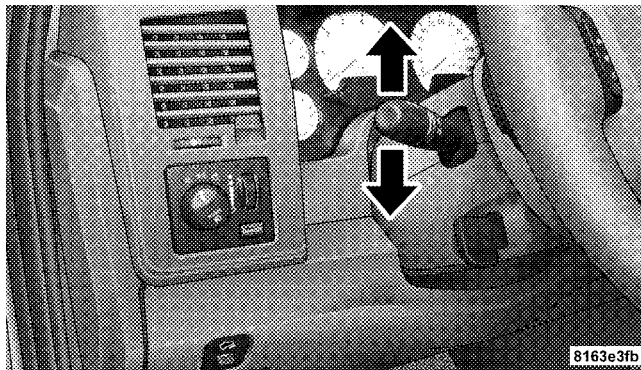
### Multifunction Lever

The multifunction lever, located on the left side of the steering column, is used to activate the turn signals and high beams headlights.

### Turn Signals

Move the lever up or down to signal a right-hand or left-hand turn.

The arrow on either side of the instrument cluster flashes to indicate the direction of the turn and proper operation of the front and rear turn signal lights. If a defective bulb or wiring circuit is detected for the turn signal system, the arrow indicators will flash at a faster rate. If an indicator fails to light when the lever is moved, see your authorized dealer.



Turn Signal Lever

### Lane Change Assist

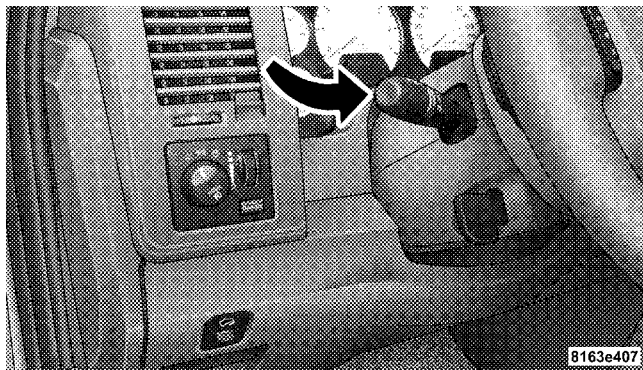
Tap the lever up or down once and the turn signal (left or right) will flash three times then automatically turn off.

### Flash-to-Pass

You can signal another vehicle with your headlights by partially pulling the multifunction lever toward the steering wheel. This will turn on the high beam headlights until the lever is released.

### High Beam/Low Beam Select Switch

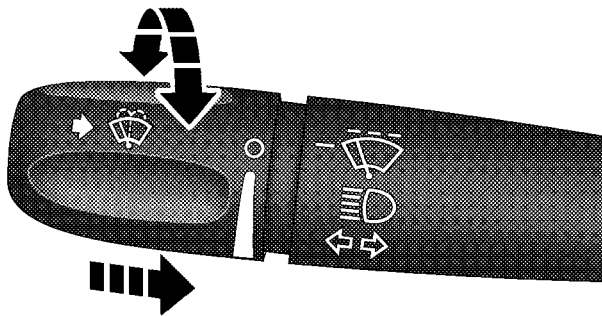
Pull the multifunction lever fully toward the steering wheel to switch the headlights from high or low beam.



High Beam/Low Beam

## WINDSHIELD WIPERS AND WASHERS

The wipers and washers are operated by a switch in the multifunction lever. Turn the end of the handle to select the desired wiper speed.



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Windshield Wiper/Washer Switch

## Intermittent Wiper System

The intermittent feature of this system was designed for use when weather conditions make a single wiping cycle, with a variable pause between cycles, desirable. For maximum delay between cycles, rotate the control knob into the upper end of the delay range.

The delay interval decreases as you rotate the knob until it enters the low continual speed position. The delay can be regulated from a maximum of about 15 seconds between cycles, to a cycle every two seconds. The delay intervals will double in duration when the vehicle speed is 10 mph (16 km/h) or less.

**WARNING!**

Sudden loss of visibility through the windshield could lead to an accident. You might not see other vehicles or other obstacles. To avoid sudden icing of the windshield during freezing weather, warm the windshield with the defroster before and during windshield washer use.

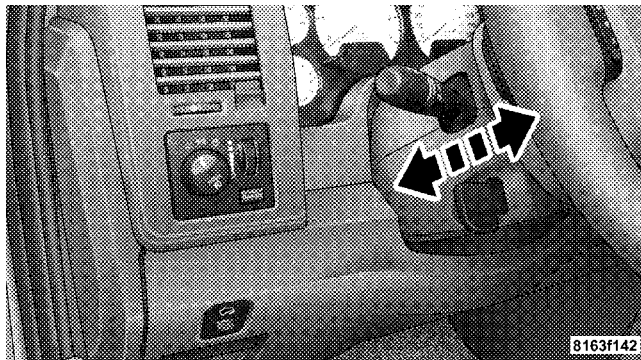
**Windshield Washers**

To use the washer, push in on the washer knob on the end of the multifunction lever and hold while spray is desired. If the washer knob is depressed while in the delay range, the wiper will operate for several seconds after the washer knob is released. It will then resume the intermittent interval previously selected. If the washer knob is pushed for a period greater than one second while in the off position, the wiper will cycle approximately three times after the wash knob is released.

## TILT STEERING COLUMN

This feature allows you to tilt the steering column upward or downward. The tilt control lever is located on the left-side of the steering column, just below the multifunction lever.

Pull the lever toward the steering wheel to unlock the steering column. Move the steering column up or down as desired, and push the lever toward the instrument panel to lock the column firmly in place.



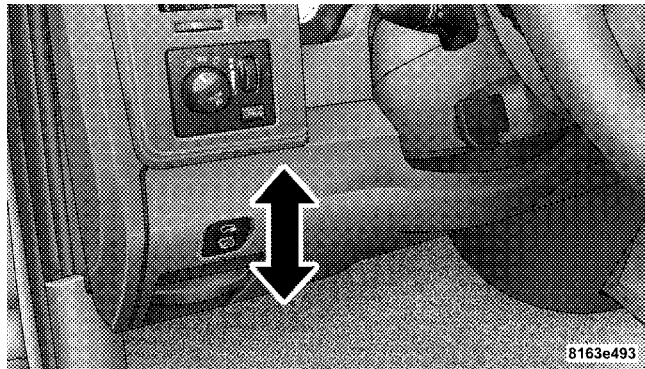
Tilt Steering Control Lever

### WARNING!

Tilting the steering column while the vehicle is moving is dangerous. Without a stable steering column, you could lose control of the vehicle and have an accident. Adjust the column only while the vehicle is stopped. Be sure it is locked before driving.

## DRIVER ADJUSTABLE PEDALS — IF EQUIPPED

The adjustable accelerator and brake pedal allow the driver to establish a comfortable position relative to the steering wheel and pedals.



Adjustable Pedals Switch

## Adjustment

1. Position the driver seat so that you are at least 10 in (254 mm) away from the airbag, located in the center of the steering wheel.
2. Fasten and adjust the seatbelts.
3. Move the adjustable pedal switch, located to the left of the steering column near the parking brake release, in the direction you desire to move the pedals.

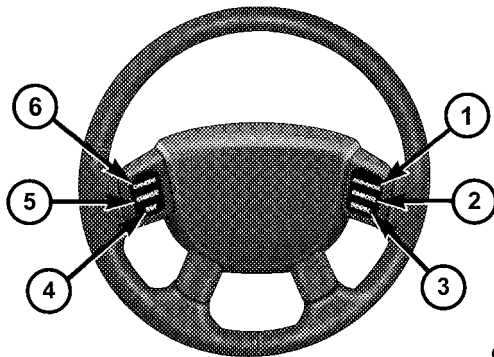
**NOTE:** The pedals **cannot** be adjusted when the vehicle is in REVERSE or when the Electronic Speed Control is set.

**CAUTION!**

Do not place any article under the adjustable pedals or impede its ability to move as it may cause damage to the pedal controls. Pedal travel may become limited if movement is stopped by an obstruction in the adjustable pedal's path.

**ELECTRONIC SPEED CONTROL — IF EQUIPPED**

When engaged, the Electronic Speed Control system takes over accelerator operation at speeds greater than 25 mph (40 km/h). The controls are mounted on the steering wheel.



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**Electronic Speed Controls**

- |                  |            |
|------------------|------------|
| 1 — Resume/Accel | 4 — Set    |
| 2 — Cancel       | 5 — Cruise |
| 3 — Decel        | 6 — On/Off |

**NOTE:** In order to ensure proper operation, the Electronic Speed Control System has been designed to shut down if multiple Speed Control functions are operated



simultaneously. If this occurs, the Electronic Speed Control System can be reactivated by pushing the Electronic Speed Control ON/OFF button and resetting the desired vehicle set speed.

### **To Activate**

Push the ON/OFF button to the ON position. In the instrument cluster, the word "CRUISE" illuminates when the system is on.

### **To Set a Desired Speed**

When the vehicle has reached the desired speed, press and release the SET button. Release the accelerator and the vehicle will operate at the selected speed.

### **To Deactivate**

A soft tap on the brake pedal, normal braking, clutch pressure while slowing the vehicle, or pressing the CANCEL button will deactivate speed control without erasing the memory. Pushing the ON/OFF button to the OFF position or turning off the ignition erases the memory.

## **WARNING!**

Leaving the Electronic Speed Control on when not in use is dangerous. You could accidentally set the system to cause it to go faster than you want. You could lose control and have an accident. Always leave the system off when you are not using it.

**3**

### **To Resume Speed**

To resume a previously set speed, push and release the RESUME button. Resume can be used at any speed above 20 mph (32 km/h).

### **To Vary the Speed Setting**

When the speed control is on, speed can be increased by pressing and holding the ACCEL button. When the button is released, a new set speed will be established.

Tapping the RESUME ACCEL button once will result in a speed increase of 1 mph (2 km/h). Each time the button

is tapped, speed increases so that tapping the button three times will increase speed by 3 mph (4.8 km/h).

Tapping the SET DECEL button once will result in a 1 mph (2 km/h) speed decrease. Each time the button is tapped, speed decreases. For example, tapping the button three times will decrease the speed by 3 mph (4.8 km/h)

To decrease speed while speed control is ON, push down and hold SET DECEL. Release the lever when the desired speed is reached, and the new speed will be set.

### To Accelerate for Passing

Depress the accelerator as you would normally. When the pedal is released, the vehicle will return to the set speed.

**NOTE:** When driving uphill, at elevations above 2,000 ft (610 m), or when the vehicle is heavily loaded (especially when towing) the vehicle may slow below the SET speed. If the vehicle speed drops below 25 mph (40 km/h), the speed control will automatically disengage. If this hap-

pens, you can push down on the accelerator pedal to maintain the desired speed.

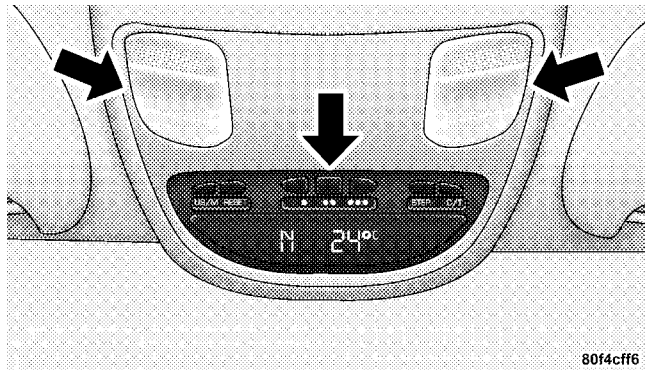
Vehicles may exhibit several downshifts under the above conditions. To reduce the frequency of the downshifts and to improve vehicle performance, it is advisable to use either TOW HAUL or O/D OFF modes, which can be selected by pressing the TOW HAUL O/D OFF button located at the end of the shift lever.

### WARNING!

**Electronic Speed Control can be dangerous where the system cannot maintain a constant speed. Your vehicle could go too fast for the conditions, and you could lose control. An accident could be the result. Do not use Electronic Speed Control in heavy traffic or on roads that are winding, icy, snow-covered or slippery.**

## OVERHEAD CONSOLE — IF EQUIPPED

The two optional overhead consoles may consist of the following features:



### Overhead Console Features

- Courtesy/Reading Lights
- Compass/Temperature Mini-Trip Computer (CMTC) — If Equipped

- Universal Garage Door Opener — If Equipped

## Courtesy/Reading Lights

In the middle of the console are two courtesy/reading lights.

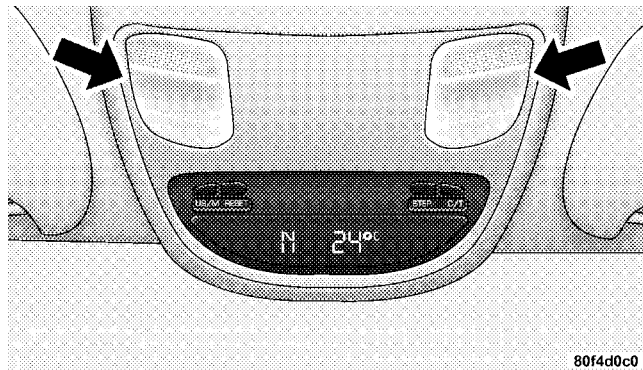
Both lights illuminate as courtesy lights when a door is opened, when the dimmer control is rotated to the courtesy light position (fully-upward position), or when the UNLOCK button is pressed on the Remote Keyless Entry (RKE) transmitter, if equipped. These lights are also operated individually as reading lights by pressing the recessed area of the corresponding lens.

**NOTE:** The courtesy/reading lights will remain on until the switch is pressed a second time, so be sure they have been turned off before leaving the vehicle. If the interior lights are left on after the vehicle is turned off, they will extinguish after 15 minutes.

## OVERHEAD CONSOLE WITH COMPASS/ TEMPERATURE MINI-TRIP COMPUTER — IF EQUIPPED

This optional overhead console consists of the following:

- Courtesy Lights
- Compass/Temperature Mini-Trip Computer (CMTC)

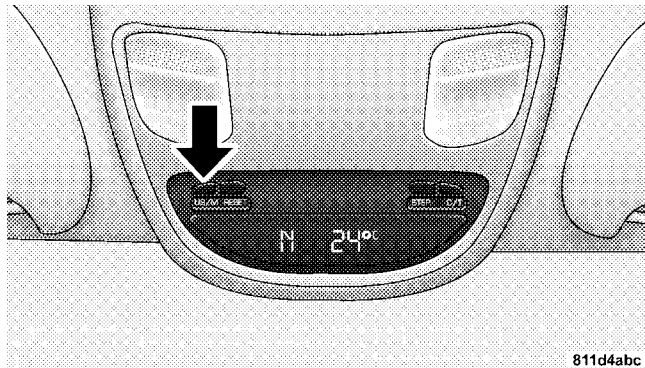


### Courtesy Lights

This overhead console allows you to choose between a compass/temperature display and one of four trip conditions being monitored.

### US/M Button

Use this button to change the display from U.S. to METRIC measurement units.

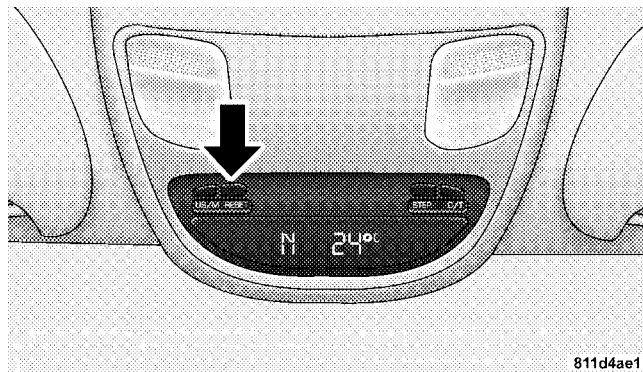


US/M Button

### Reset Button

Use this button to reset the following displays:

- Average Fuel Economy (AVG ECO)
- Trip Odometer (ODO)
- Elapsed time (ET)



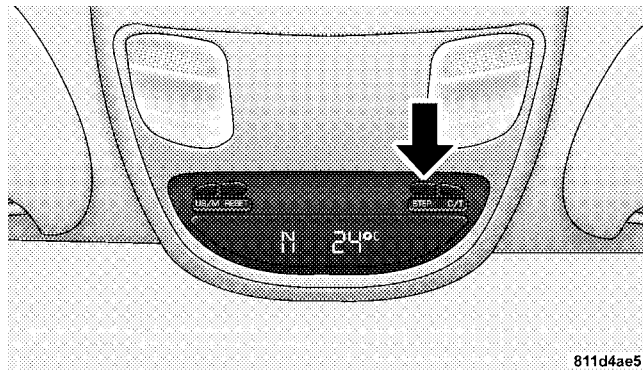
RESET Button

**Global Reset**

If the RESET button is pressed twice within two seconds while in any of the four displays (AVG, ECO, ODO, ET), the Global Reset will reset all four displays.

**Step Button**

Use this button to choose or cycle through the four trip conditions.

**STEP Button****Average Fuel Economy (AVG ECO)**

Shows the average fuel economy since the last reset. Average fuel economy is a running average of the amount of fuel used and the distance the vehicle has traveled.

When the fuel economy is reset, the display will momentarily blank. Then, the history will be erased, and the **AVERAGING WILL CONTINUE FROM WHERE IT WAS BEFORE THE RESET**. The reset value is based on a minimal amount of fuel used and the distance traveled from the previous drive cycle. The display **may take several miles/kilometers** for this value to change dependent upon driving habits.

### **Distance To Empty (DTE)**

The distance to empty (DTE) shows the estimated distance that can be traveled with the fuel remaining in the tank. This estimated distance is determined by weighted average of the instantaneous and average fuel economy, according to the current fuel tank level.

#### **NOTE:**

- The DTE **cannot** be reset.
- 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 miles (48 km) estimated driving distance, the DTE display will change to an alternating test display of “LO” and “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 “LO FUEL” text and a new DTE value will be displayed, based on the current values in the DTE calculation and the current fuel tank level.

**NOTE:** It is possible for DTE to display “LO FUEL” before the low fuel warning light turns on in the instrument cluster. This could occur because low fuel warning is set to a specified fuel tank volume and DTE is an estimated distance calculation based on fuel economy and remaining fuel tank volume.

#### ***Ram fuel tank volumes are as follows:***

- 34 gal (128 L) - 2500/3500/Power Wagon short box models
- 35 gal (132 L) - 2500/3500//Power Wagon long box models

### Trip Odometer (ODO)

**NOTE:** The maximum value is approximately 6000 miles (9956 km). Then the trip odometer must be reset in order to update the trip odometer miles/kilometers.

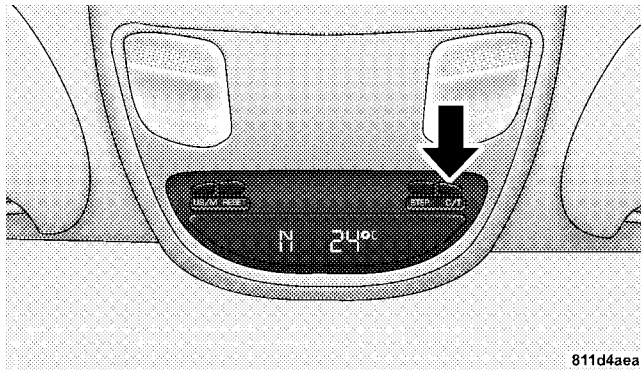
This display shows the distance traveled since the last reset. Resetting of this screen will cause the trip odometer to change to zero.

### Elapsed Time (ET)

This display shows the accumulated ignition ON time since the last reset. Resetting the Elapsed Time will cause the display to change to zero.

### C/T Button

Use this button to select a readout of the outside temperature and one of eight compass headings that indicate the direction in which the vehicle is facing.



C/T Button

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**WARNING!**

Even if the display still reads a few degrees above 32°F ( 0°C), the road surface may be icy, particularly in woods or on bridges. Drive carefully under such conditions to prevent an accident and possible personal injury or property damage.

**Automatic Compass Calibration**

This compass is self-calibrating which eliminates the need to manually set the compass. When the vehicle is new, the compass may appear erratic and the CAL symbol will be displayed.

After completing up to three 360 degree turns, with the vehicle traveling less than 5 mph (8 km/h), in an area free from large metal or metallic objects, the CAL symbol will turn off and the compass will function normally.

**Manual Compass Calibration**

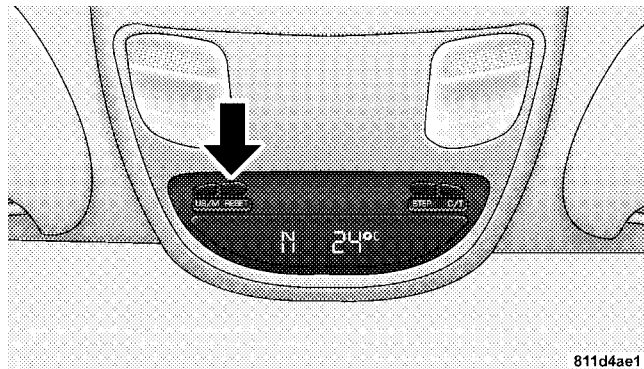
**NOTE:** To ensure proper compass calibration, make sure the compass variance is properly set before manually calibrating the compass.

If the compass appears erratic and the CAL symbol does not appear, you must manually put the compass into the “Calibration” mode.

**Recalibrating The Compass**

Start the engine and leave the transmission in the PARK position then set the display to “Compass/Temperature.” Press and hold the RESET button to change the display between VAR (compass variance) and CAL (compass calibration) modes. When the CAL symbol is displayed, complete one 360 degree turn in an area free from large metal objects or power lines. The CAL symbol will turn off and the compass will function normally.

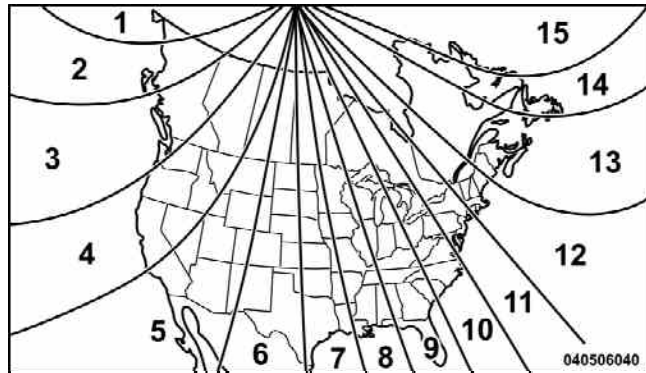
**NOTE:** Magnetic materials should be kept away from the overhead console. This is where the compass sensor is located.



**RESET Button**

**Compass Variance** is the difference between magnetic North and geographic North. In some areas of the country, the difference between magnetic and geographic

North is great enough to cause the compass to give false readings. If this occurs, the compass variance must be set according to the Compass Variance Map.



**Compass Variance Map**

**NOTE:** The default for the compass variance is Zone 8. To set the variance: Turn the ignition ON and set the display to "Compass/Temperature." Press and hold the

RESET button approximately five seconds. The last variance zone number will be displayed. Press the STEP button to select the new variance zone and press the RESET button to resume normal operation.

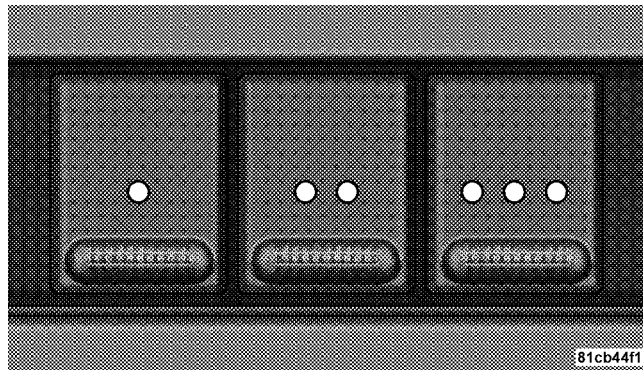
### Outside Temperature

Because the ambient temperature sensor is located under the hood, engine temperature can influence the displayed temperature, therefore, temperature readings are slowly updated when the vehicle speed is below 20 mph (30 km/h) or during stop and go driving.

### GARAGE DOOR OPENER — IF EQUIPPED

HomeLink® replaces up to three remote controls (hand-held transmitters) that operate devices such as garage door openers, motorized gates, lighting, or home security systems. The HomeLink® unit operates off of your vehicle's battery.

The HomeLink® buttons are located in the overhead console, and contain one, two, or three dots/lines designating the different HomeLink® channels.



HomeLink Buttons

**NOTE:** HomeLink® is disabled when the Vehicle Theft Alarm is active.

**WARNING!**

- **Your motorized door or gate will open and close while you are training the Universal Transceiver. Do not train the transceiver if people or pets are in the path of the door or gate. Only use this transceiver with a garage door opener that has a “stop and reverse” feature as required by federal safety standards. This includes most garage door opener models manufactured after 1982. Do not use a garage door opener without these safety features. Call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com) for safety information or assistance.**
- **Vehicle exhaust contains carbon monoxide, a dangerous gas. Do not run your vehicle in the garage while training the transceiver. Exhaust gas can cause serious injury or death.**

**Programming HomeLink®****Before You Begin**

The Compass Mini-Trip Computer (CMTC) illuminates the HomeLink® symbol (a house with an arrow inside it) along with 1, 2 or 3 indicators under it, when a HomeLink® button is pressed.

Pay attention to the indicator(s), as they will flash at different rates, or remain solid during training.

If you have not trained any of the HomeLink® buttons, erase all channels before you begin training.

To do this, press and hold the two outside buttons for 20 seconds. Release the buttons when the indicators start to flash.

It is recommended that a **new battery** be placed in the hand-held transmitter of the device being programmed to HomeLink® for more efficient training and accurate transmission of the radio-frequency signal.

Your vehicle should be parked outside of the garage while training.

1. Turn the ignition switch to the ON/RUN position.
2. Place the hand-held transmitter 1 to 3 inches (3 to 8 cm) from the HomeLink® buttons while keeping the HomeLink® display in view.

For optimal training, point the battery end of the hand-held transmitter away from the HomeLink®.

3. Simultaneously, press and hold both the chosen HomeLink® button and the hand-held transmitter button until the indicator(s) change from a slow to a rapid flash rate.

Then release both the HomeLink® and hand-held transmitter buttons.

It may take up to 30 seconds or longer in rare cases. The garage door may open and close while you train.

If the signal is too weak to train, replace the battery in the original hand-held transmitter.

**NOTE:** Some gate operators and garage door openers may require you to replace Step #3 with procedures noted in the “Gate Operator/Canadian Programming” section.

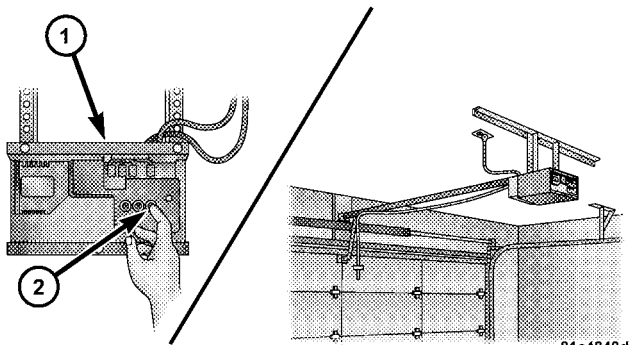
4. Press and hold the just-trained HomeLink® button. If the indicator(s) blink rapidly for two seconds and then remains constant, continue with the next section: “Programming A Rolling Code System”.

**NOTE:** After training a HomeLink® channel, if the garage door does not operate with HomeLink® and the garage door opener was manufactured after 1995, the garage door opener may have rolling code. If so, proceed to the heading, “Programming A Rolling Code System.”

### 5. PROGRAMMING A ROLLING CODE SYSTEM

At the garage door opener motor (in the garage), locate the “learn” or “training” button.

This can usually be found where the hanging antenna wire is attached to the garage door opener motor (it is NOT the button normally used to open and close the door).



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- 1 — Garage Door Opener  
2 — Training Button

6. Firmly press and release the “learn” or “training” button. The name and color of the button may vary by manufacturer.

**NOTE:** There are 30 seconds in which to initiate the next step after the “Learn” button has been pressed.

7. Return to the vehicle and press the programmed HomeLink® button twice (holding the button for two seconds each time). If the device is plugged in and activates, programming is complete.

If the device does not activate, press the button a third time (for two seconds) to complete the training.

If you have any problems, or require assistance, please call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com) for information or assistance.

To program the remaining two HomeLink® buttons, repeat each step for each remaining button. DO NOT erase the channels.

### Gate Operator/Canadian Programming

Canadian radio-frequency laws require transmitter signals to “time-out” (or quit) after several seconds of transmission – which may not be long enough for HomeLink® to pick up the signal during programming.

Similar to this Canadian law, some U.S. gate operators are designed to “time-out” in the same manner.

It may be helpful to unplug the device during the cycling process to prevent possible overheating of the garage door or gate motor.

If you are having difficulties programming a garage door opener or a gate operator, replace “Programming HomeLink,” Step 3, with the following:

**3. Continue to press and hold the HomeLink® button, while you press and release )“cycle”), your hand-held transmitter every two seconds until HomeLink® has successfully accepted the frequency signal. The indicator(s) will change from a slow flash to a rapid flash when trained.**

If you unplugged the device for training, plug it back in at this time.

Then proceed with Step 4 under, “Programming HomeLink®,” earlier in this section.

## Using HomeLink®

To operate, simply press and release the programmed HomeLink® button. Activation will now occur for the trained device (i.e., garage door opener, gate operator, security system, entry door lock, home/office lighting, etc.) The hand-held transmitter of the device may also be used at any time.

## Reprogramming A Single HomeLink® Button

To reprogram a channel that has been previously trained, follow these steps:

1. Turn the ignition switch to the ON/RUN position.
2. Press and hold the desired HomeLink® button for 20 seconds until the indicator(s) starts to flash. **Do not release the button.**
3. **Without releasing the button**, proceed with Programming Homelink®, Step #2, and follow all remaining steps.

## Security

It is advised to erase all channels before you sell or turn in your vehicle.

To do this, press and hold the two outside buttons for 20 seconds until the indicators begin to flash. Note that all channels will be erased. Individual channels cannot be erased.

The HomeLink® Universal Transceiver is disabled when the Vehicle Theft Alarm is active.

## Troubleshooting Tips

If you are having trouble programming HomeLink®, here are some of the most common solutions:

- Replace the battery in the original transmitter.
- Press the “Learn” button on the garage door opener to complete the training for Rolling Code.



- Did you unplug the device for training and remember to plug it back in?

If you have any problems, or require assistance, please call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com), for information or assistance.

### **General Information**

This device complies with FCC rules part 15 and Industry Canada RSS-210. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received including interference that may cause undesired operation.

**NOTE:** The transmitter has been tested and it complies with FCC and IC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

The term "IC" before the certification/registration number only signifies that Industry Canada technical specifications were met.

### **POWER SUNROOF — IF EQUIPPED**

The power sunroof switch is located between the sun visors on the overhead console.

**NOTE:** The Power Accessory Delay feature will allow the power sunroof to operate for approximately ten minutes after the ignition is turned OFF or a front door is opened.

**WARNING!**

- Never leave children alone in a vehicle. Leaving unattended children in a vehicle is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Do not leave the key in the ignition. A child could operate power windows, other controls, or move the vehicle.
- In an accident, there is a greater risk of being thrown from a vehicle with an open sunroof. You could also be seriously injured or killed. Always fasten your seat belt properly and make sure all passengers are properly secured too.
- Do not allow small children to operate the sunroof. Never allow your fingers, other body parts, or any object to project through the sunroof opening. Injury may result.

**Open Sunroof — Express Mode**

Momentarily pressing the switch rearward will activate the Express Open Feature, causing the sunroof to open automatically. During the Express Open operation, any movement of the switch will stop the sunroof and it will remain in a partial open position. Again, momentarily pressing the switch rearward will activate the Express Open Feature.

**Closing Sunroof — Express**

Press the switch forward and release, and the sunroof will close automatically from any position. The sunroof will close fully and stop automatically. This is called Express Close. During Express Close operation, any movement of the switch will stop the sunroof.

**Pinch Protect Feature**

This feature will detect an obstruction in the opening of the sunroof during Express Close operation. If an obstruction in the path of the sunroof is detected, the

sunroof will automatically retract. Remove the obstruction if this occurs. Next, press the switch forward and release to Express Close.

### **Pinch Protect Override**

If a known obstruction (ice, debris, etc.) prevents closing, press the switch forward and hold for two seconds after the reversal occurs. This allows the sunroof to move towards the closed position.

**NOTE:** Pinch protection is disabled while the switch is pressed.

### **Venting Sunroof — Express**

Press and release the "V" button, and the sunroof will open to the vent position. This is called "Express Vent", and will occur regardless of sunroof position. During Express Vent operation, any movement of the switch will stop the sunroof.

### **Sunshade Operation**

The sunshade can be opened manually. However, the sunshade will open automatically as the sunroof opens.

**NOTE:** The sunshade cannot be closed if the sunroof is open.

### **Wind Buffeting**

Wind buffeting can be described as the perception of pressure on the ears or a helicopter-type sound in the ears. Your vehicle may exhibit wind buffeting with the windows down, or the sunroof (if equipped) in certain open or partially open positions. This is a normal occurrence and can be minimized. If the buffeting occurs with the rear windows open, open the front and rear windows together to minimize the buffeting. If the buffeting occurs with the sunroof open, adjust the sunroof opening to minimize the buffeting or open any window.

### Sunroof Maintenance

Use only a non-abrasive cleaner and a soft cloth to clean the glass panel.

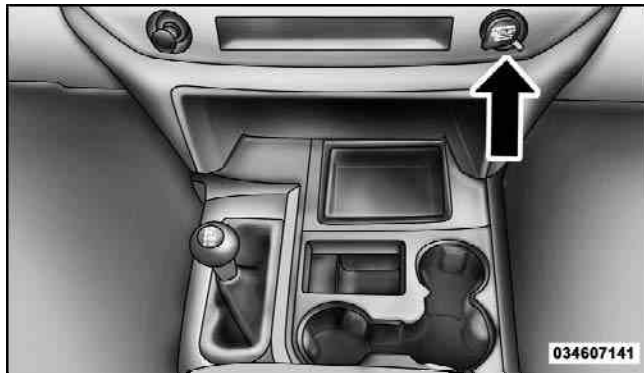
### Sunroof Fully Closed

Press the switch forward and release to ensure that the sunroof is fully closed.

### ELECTRICAL POWER OUTLETS

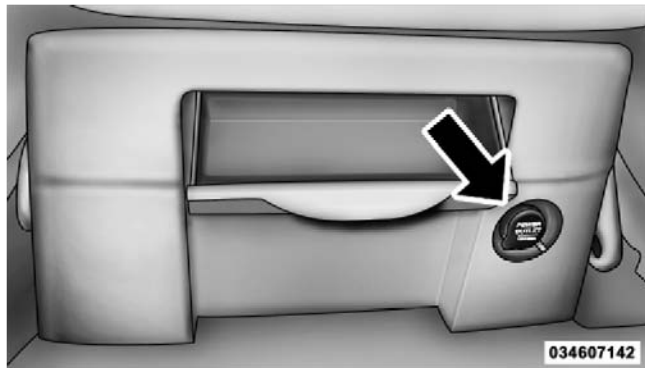
The auxiliary electrical power outlet can provide power for in-cab accessories designed for use with the standard "cigar lighter" plug. The power outlet is located in the instrument panel, below and to the right of the climate control panel. A cap is attached to the outlet base indicating "Power Outlet" 12-Volt/20 A.

There is an additional power outlet inside the center console of vehicle's equipped with 40-20-40, or bucket front seats.



Front Power Outlet

There is also a power outlet located on the rear of the center console (if equipped with bucket seats).



**Rear Power Outlet**

The power outlet(s) has/have a fused direct feed from the battery so it/they receive power whether the ignition is ON or OFF.

All accessories connected to this/these power outlet(s) should be removed or turned off when the vehicle is not in use to protect the battery against discharge.

**NOTE:** If desired, all of the power outlets can be converted by your authorized dealer to provide power with the ignition switch in the ON position only.

3

### **WARNING!**

To avoid serious injury or death:

- Do not use a three-prong adapter.
- Do not insert any objects into the receptacles.
- Do not touch with wet hands.
- Close the lid when not in use and while driving the vehicle.
- If this outlet is mishandled, it may cause an electric shock and failure.

**CAUTION!**

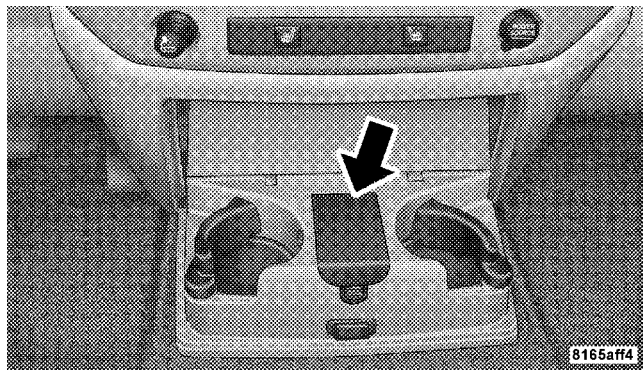
- Many accessories that can be plugged in draw power from the vehicle's battery, even when not in use (i.e., cellular phones, etc.). Eventually, if plugged in long enough, the vehicle's battery will discharge sufficiently to degrade battery life and/or prevent the engine from starting.
- Accessories that draw higher power (i.e., coolers, vacuum cleaners, lights, etc.), will discharge the battery even more quickly. Only use these intermittently and with greater caution.
- After the use of high power draw accessories, or long periods of the vehicle not being started (with accessories still plugged in), the vehicle must be driven a sufficient length of time to allow the generator to recharge the vehicle's battery.

**CIGAR LIGHTER AND ASH RECEIVER**

The removable ash receiver is located in the instrument panel cupholder tray.

The cigar lighter is located on the instrument panel, above and to the left of the ash receiver.

As a child safety precaution, the lighter only operates with the ignition switch ON. It heats when pushed in and pops out automatically when ready for use. **To preserve the heating element, do not hold the lighter in the heating position.**



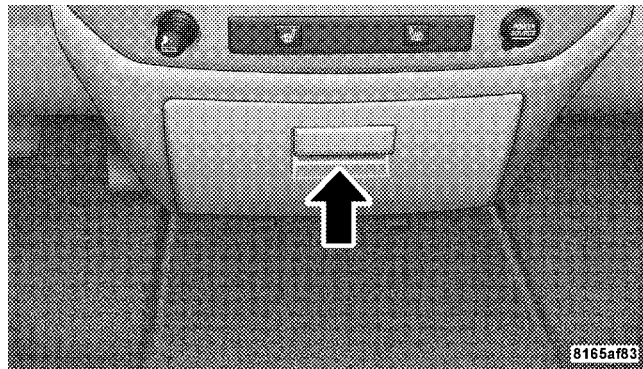
Ash Receiver

## CUPHOLDERS

### Front Instrument Panel Cupholders (40–20–40 Seats) — Automatic Transmission

Located in the front center stack of the instrument panel are two adjustable cupholders.

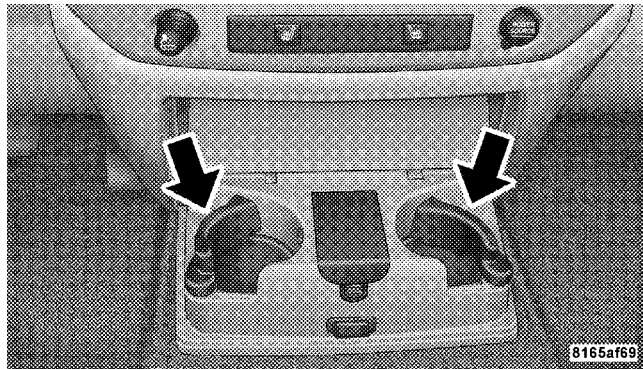
To access the cupholders pull on the cupholder door handle located on the instrument panel.



Cupholder Door Handle

Each opening in the cupholder is adjustable and will hold cups and mugs of various sizes.

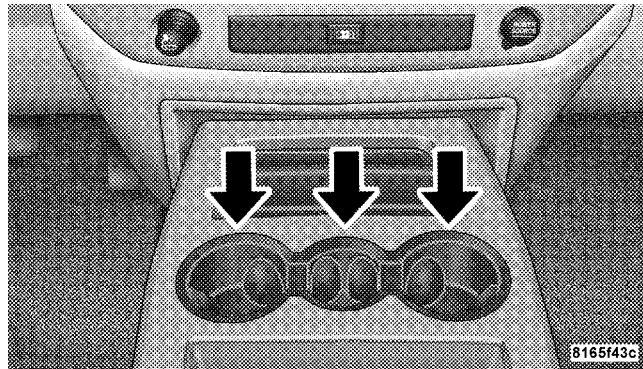
To secure the cup, place the cup to be held into one of the cup wells and then push the cupholder arm toward the cup until it is held stable.



Cupholders

### Front Instrument Panel Cupholders (Bucket Seats)

If your vehicle is equipped with bucket seats there are three cupholders located on the front of the center console.



Cupholders Bucket Seat

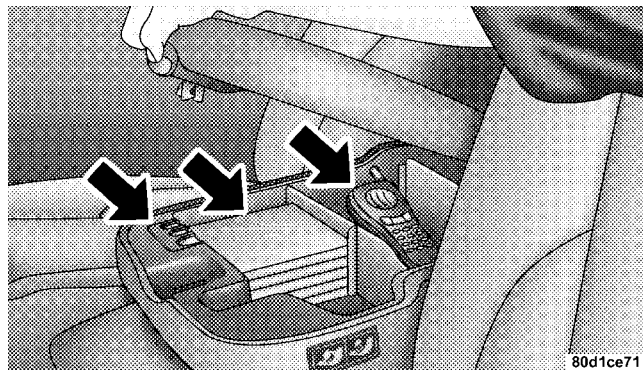


**Rear Cupholder (Quad Cab®) — If Equipped**

Quad Cab® vehicles may be equipped with a rear cupholder that consists of two cup wells for rear passenger convenience.

**STORAGE****Center Storage Compartment (40–20–40 Seat) – If Equipped**

The center portion of the seat folds down to provide an armrest with unique storage compartments under the lid. Push the button on the front of the armrest to raise the cover. Inside there is a power outlet (if equipped), removable coin holder (if equipped), and two dividers to configure the storage area into compartments. For example, compartments can be configured to hold a cellular telephone, CDs and miscellaneous items.



Center Storage Compartment

**WARNING!**

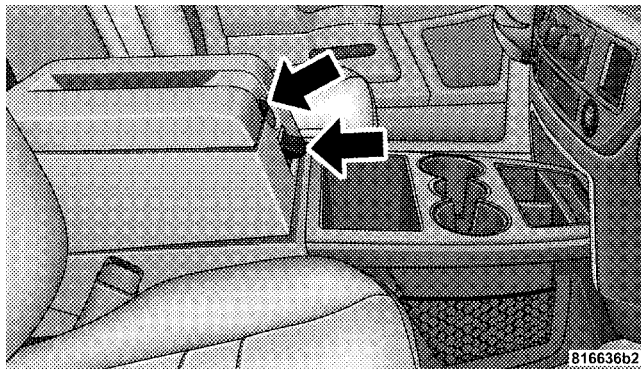
- This armrest is not a seat. Anyone seated on the armrest could be seriously injured during vehicle operation, or an accident. Only use the center seating position when the armrest is fully upright.
- In an accident, the latch may open if the total weight of the items stored exceeds about 10 lbs (4.5 kg). These items could be thrown about endangering occupants of the vehicle. Items stored should not exceed a total of 10 lbs (4.5 kg).

**CAUTION!**

- Many accessories that can be plugged in draw power from the vehicle's battery, even when not in use (i.e., cellular phones, etc.). Eventually, if plugged in long enough, the vehicle's battery will discharge sufficiently to degrade battery life and/or prevent engine starting.
- Accessories that draw higher power (i.e., coolers, vacuum cleaners, lights, etc.), will degrade the battery even more quickly. Only use these intermittently and with greater caution.
- After the use of high power draw accessories, or long periods of the vehicle not being started (with accessories still plugged in), the vehicle must be driven a sufficient length of time to allow the generator to recharge the vehicle's battery.

### Center Storage Compartment (Bucket Seats) – If Equipped

Push the upper button on the front of the armrest to raise the upper cover. Inside is a power outlet (if equipped), a cutout for a cellular phone charger cord, removable coin holder (if equipped), and a divider to configure the storage area into separate compartments. Lift the lower handle on the front of the armrest, and raise the armrest for access to the lower storage bin. On Quad Cab® models the rear of the floor console offers a power outlet.



Center Storage Compartment

**WARNING!**

- This armrest is not a seat. Anyone seated on the armrest could be seriously injured during vehicle operation, or an accident. Only use the center seating position when the armrest is fully upright.
- In an accident, the latch may open if the total weight of the items stored exceeds about 10 lbs (4.5 kg). These items could be thrown about endangering occupants of the vehicle. Items stored should not exceed a total of 10 lbs (4.5 kg).

**CAUTION!**

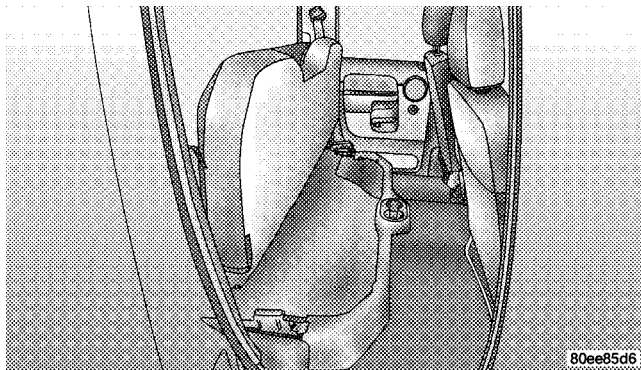
- Many accessories that can be plugged in draw power from the vehicle's battery, even when not in use (i.e., cellular phones, etc.). Eventually, if plugged in long enough, the vehicle's battery will discharge sufficiently to degrade battery life and/or prevent engine starting.
- Accessories that draw higher power (i.e., coolers, vacuum cleaners, lights, etc.), will degrade the battery even more quickly. Only use these intermittently and with greater caution.
- After the use of high power draw accessories, or long periods of the vehicle not being started (with accessories still plugged in), the vehicle must be driven a sufficient length of time to allow the generator to recharge the vehicle's battery.

### Storage and Seats (Quad Cab® Models)

Located in the center of the front 40–20–40 seat cushion there is a storage compartment.

Regular Cab models also have storage behind the seat.

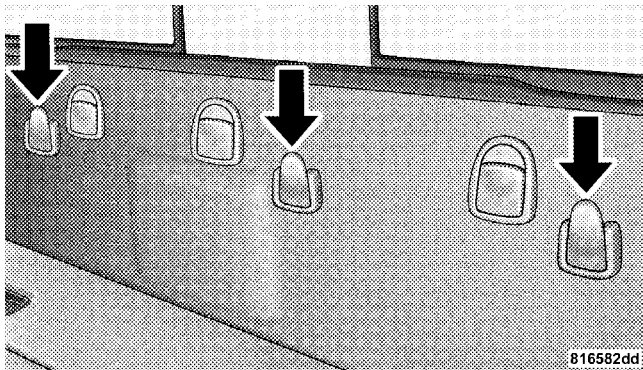
The Quad Cab® models provide additional storage under the rear seat. Lift the seat to access the storage compartment.



Quad Cab® Storage

### Plastic Grocery Bag Retainers — If Equipped


Retainer hooks which will hold plastic grocery bag handles are built into the back panel of the cab, behind the rear seat.



Grocery Bag Hooks

## REAR WINDOW FEATURES

### Rear Window Defroster and Heated Outside Mirrors — If Equipped

 The rear window defroster button is located on the climate control panel. Press this button to turn on the rear window defroster and the heated outside mirrors (if equipped). An indicator in the button will illuminate when the rear window defroster is on. The rear window defroster automatically turns off after approximately 10 minutes. For an additional five minutes of operation, press the button a second time.

**NOTE:** To prevent excessive battery drain, use the rear window defroster only when the engine is operating.

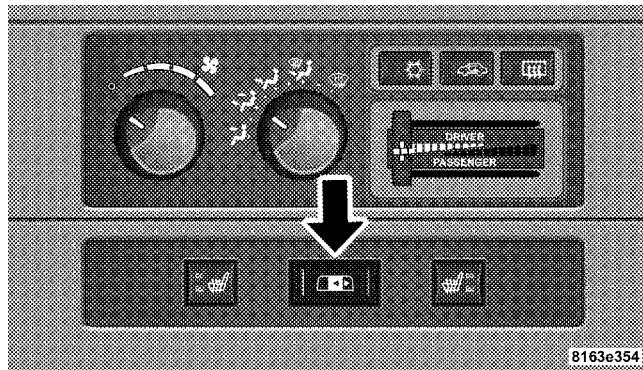
**CAUTION!**

Failure to follow these cautions can cause damage to the heating elements:

- Use care when washing the inside of the rear window. Do not use abrasive window cleaners on the interior surface of the window. Use a soft cloth and a mild washing solution, wiping parallel to the heating elements. Labels can be peeled off after soaking with warm water.
- Do not use scrapers, sharp instruments, or abrasive window cleaners on the interior surface of the window.
- Keep all objects a safe distance from the window.

**Power Sliding Rear Window — If Equipped**

The power sliding rear window switch is located on the instrument panel below the climate controls. Press the right side of the switch to open the glass and the left side of the switch to close the glass.



Power Sliding Rear Window Switch

**Sliding Rear Window — If Equipped**

A locking device in the center of the window helps to prevent entry from the rear of the vehicle. Squeeze the lock to release the window.

**FOLD FLAT LOAD FLOOR — IF EQUIPPED**

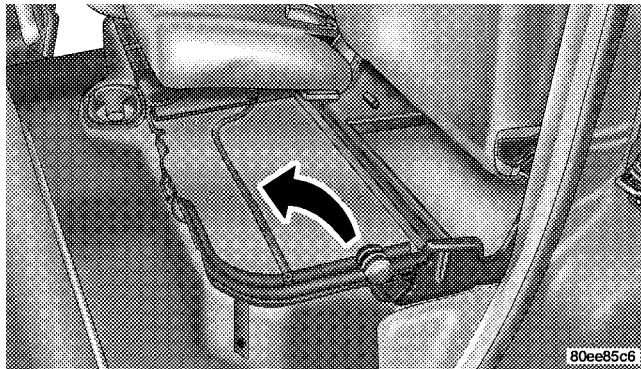
Quad Cab® models with a 60/40 rear seat may be equipped with a folding load floor.

**WARNING!**

Do not operate the vehicle with loose items stored on the load floor. While driving or in an accident you may experience abrupt stopping, rapid acceleration, or sharp turns. Loose objects stored on the load floor may move around with force and strike occupants, resulting in serious or fatal injury.

*Unfolding the Load Floor*

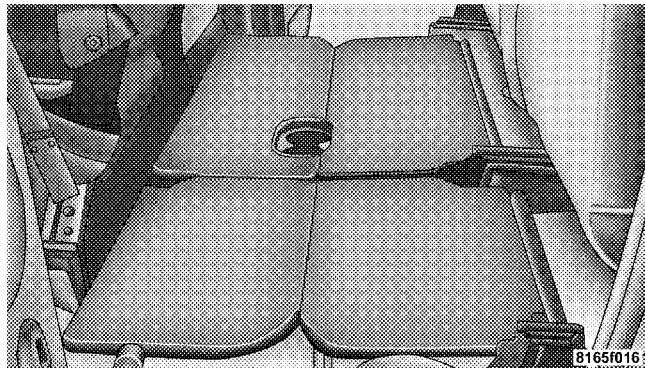
1. Lift the 60/40 seat cushion(s) to the upward position.



Unfolding The Load Floor



2. Grasp the knob on the load floor and lift the knob until the load floor unfolds into position.



**Load Floor In Open Position**

3. Reverse the procedure to store the load floor.

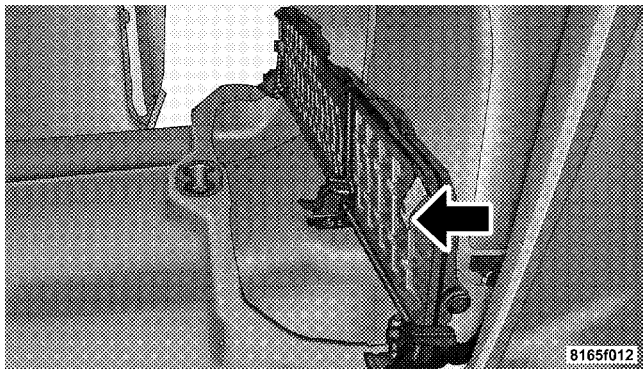
### *Positioning the Load Floor for Storage Access Under the Seat*

1. Lift the 60/40 seat cushion(s) to the upward position.
2. Unsnap the securing snap located at either side of the load floor.
3. Lift the load floor up to access storage under the load floor.

**3**

### **WARNING!**

**Do not drive with the load floor in the up position. When stopping fast or in an accident, the load floor could move to the down position causing serious injury.**

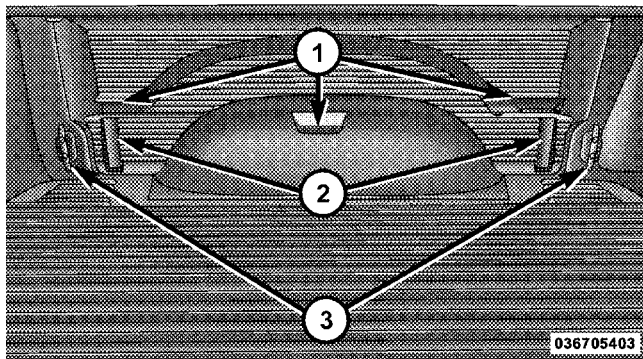


#### Load Floor Securing Straps

4. Reverse the procedure to put the load floor back in the secured down position before you operate the vehicle.

## PICKUP BOX

The pickup box has many features designed for utility and convenience.



#### Pick Up Box Features

- 1 — Upper Load Floor Indents
- 2 — Bulk Head Dividers
- 3 — Cleats

**NOTE:** If you are installing a toolbox to the front of the pickup box, you must use Mopar® toolbox brackets available from your authorized dealer.

You can carry wide building materials (sheets of plywood, etc.) by building a raised load floor. Place lumber across the box in the indentations provided above the wheel housings and in the bulkhead dividers to form the floor.

### **WARNING!**

- The pickup box is intended for load carrying purposes only, not for passengers, who should sit in seats and use seat belts.

*(Continued)*

### **WARNING! (Continued)**

- Care should always be exercised when operating a vehicle with unrestrained cargo. Vehicle speeds may need to be reduced. Severe turns or rough roads may cause shifting or bouncing of the cargo that may result in vehicle damage. If wide building materials are to be frequently carried, the installation of a support is recommended. This will restrain the cargo and transfer the load to the pickup box floor.
- If you wish to carry more than 600 lbs (272 kg) of material suspended above the wheelhouse, supports must be installed to transfer the weight of the load to the pickup box floor or vehicle damage may result. The use of proper supports will permit loading up to the rated payload.
- Unrestrained cargo may be thrown forward in an accident causing serious or fatal injury.

There are stampings in the sheet metal on the inner side bulkheads of the box in front of and behind both wheel housings. Place wooden boards across the box from side to side to create separate load compartments in the pickup box.

There are four tie-down cleats bolted to the lower sides of the pickup box that can sustain loads up to 1000 lbs (450 kg) total.

## **SLIDE-IN CAMPERS**

### **Camper Applications**

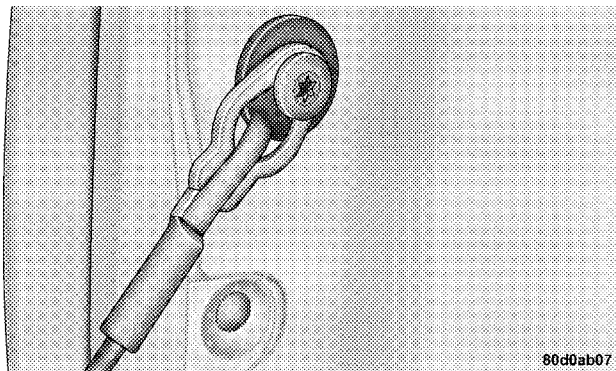
Certain truck models are not recommended for slide-in campers. To determine if your vehicle is excluded, please refer to the “Consumer Information Truck-Camper Loading” document available from your authorized dealer. For safety reasons, follow all instructions in this important document.

**NOTE:** When a cap or pickup camper is installed on a vehicle, an alternate Center High-Mounted Stop Light (CHMSL) must be provided.

### **EASY-OFF TAILGATE**

Tailgate removal is sometimes necessary for loading and can be easily removed by following these steps:

1. Unlatch the tailgate and open it enough so that there is some slack in the support cables.
2. Remove the support cables by releasing the locking tang and rotating them away from the box. Once the cables are free, move to the right side of the tailgate.



**Tailgate Support Strap Attachment**

3. Raise the right side of the tailgate until the right side pivot clears the hanger bracket.
4. Slide the entire tailgate to the right to free the left side pivot.
5. Remove the tailgate from the vehicle.

**NOTE:**

- Do not carry the tailgate loose in the truck pickup box.
- Dual rear wheel pickup models require properly spaced rear clearance lights. If such a vehicle is operated without a tailgate, suitable lights must be installed.

**WARNING!**

To avoid inhaling carbon monoxide, which is deadly, the exhaust system on vehicles equipped with "Cap or Slide-In Campers" should extend beyond the overhanging camper compartment and be free of leaks.



# UNDERSTANDING YOUR INSTRUMENT PANEL

## CONTENTS

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■ Instrument Panel Features . . . . .	184	■ Sales Code RAQ – AM/FM/CD (6-Disc) Radio With Optional uconnect® studios (Satellite Radio), uconnect® phone, And Video Entertainment Systems (VES) <sup>TM</sup> Capabilities . . .	202
□ Ram Truck . . . . .	184	□ Operating Instructions - Radio Mode . . . . .	203
□ Power Wagon . . . . .	185	□ Operation Instructions - (CD Mode For CD Audio Play) . . . . .	208
■ Instrument Cluster – Base . . . . .	186	□ Load/Eject Button (CD Mode For CD Audio Play) . . . . .	209
■ Instrument Cluster – Premium . . . . .	187	□ Notes On Playing MP3 Files . . . . .	211
■ Instrument Cluster Description . . . . .	188		
■ Electronic Digital Clock . . . . .	201		
□ Clock Setting Procedure . . . . .	202		

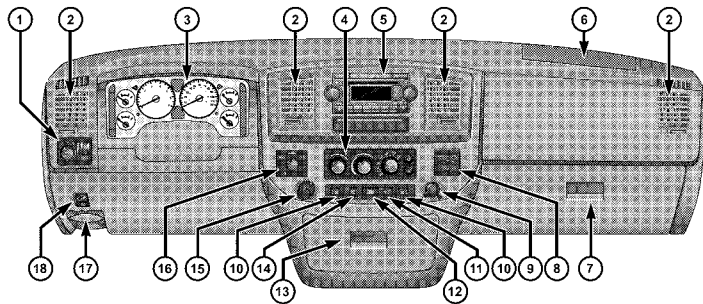
- Operation Instructions - (CD Mode For MP3 Audio Play) . . . . . 214
- Load/Eject Button  
(CD Mode For MP3 Play) . . . . . 214
- Sales Code REF — AM/FM/CD (Single-Disc) Radio With Optional uconnect® studios (Satellite Radio) And uconnect® phone Capability . . . . . 216
- Operating Instructions - Radio Mode . . . . . 216
- Operating Instructions - CD Mode . . . . . 220
- Operating Instructions - Auxiliary Mode . . . . . 222
- Operating Instructions - uconnect® phone — If Equipped . . . . . 223
- Operating Instructions - uconnect® studios (Satellite Radio) — If Equipped . . . . . 223
- Sales Code REC — AM/FM/CD (6-Disc) Radio With uconnect® gps (Navigation) . . . . . 224
- Operating Instructions — uconnect® studios (Satellite Radio) — If Equipped . . . . . 224
- REC Setting The Clock . . . . . 224
- uconnect® studios (Satellite Radio) — If Equipped . . . . . 227
- System Activation . . . . . 227
- Electronic Serial Number/Sirius Identification Number (ESN/SID) . . . . . 227
- Selecting uconnect® studios (Satellite) Mode In REF, RAQ, And RAK Radios . . . . . 228
- Selecting A Channel . . . . . 229
- Storing And Selecting Preset Channels . . . . . 229



<ul style="list-style-type: none"> <li>□ Using The PTY (Program Type) Button — If Equipped . . . . . 229</li> <li>□ PTY Button Scan . . . . . 230</li> <li>□ PTY Button Seek . . . . . 230</li> <li>□ Satellite Antenna . . . . . 230</li> <li>□ Reception Quality . . . . . 230</li> <li>■ Video Entertainment System (VES)<sup>TM</sup> — If Equipped . . . . . 231</li> <li>■ Remote Sound System Controls — If Equipped . . . . . 231</li> <li>□ Radio Operation . . . . . 232</li> <li>□ CD Player . . . . . 232</li> </ul>	<ul style="list-style-type: none"> <li>■ CD/DVD Maintenance . . . . . 232</li> <li>■ Radio Operation And Cellular Phones . . . . . 233</li> <li>■ Climate Controls . . . . . 234</li> <li>□ Heater Only — If Equipped . . . . . 234</li> <li>□ Air Conditioning And Heating — If Equipped . . . . . 237</li> <li>□ Air Conditioning With Dual Zone Temperature Control — If Equipped . . . . . 240</li> <li>□ Operating Tips . . . . . 244</li> <li>□ Operating Tips Chart . . . . . 246</li> </ul>
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## INSTRUMENT PANEL FEATURES

## RAM TRUCK



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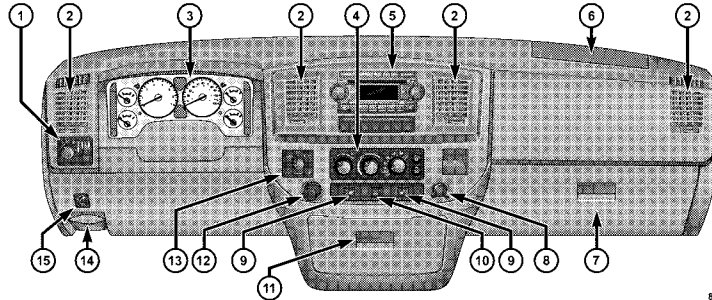
- 1 — Headlight Switch
- 2 — Air Outlets
- 3 — Instrument Cluster
- 4 — Climate Controls
- 5 — Radio

- 6 — Passenger Airbag
- 7 — Glove Compartment
- 8 — Passenger Airbag On/Off Switch\*
- 9 — Power Outlet
- 10 — Heated Seat Switch

- 11 — TPMS "Light Load" Reset Switch\*
- 12 — Power Sliding Back Glass Switch\*
- 13 — Cupholders
- 14 — ESP Off Switch\*
- 15 — Cigar Lighter

- 16 — Transfer Case Control Switch\*
  - 17 — Parking Brake Release Lever
  - 18 — Adjustable Pedal Control Switch\*
- \* If Equipped

POWER WAGON



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- 1 — Headlight Switch
- 2 — Air Outlets
- 3 — Instrument Cluster

- 4 — Climate Controls
- 5 — Radio

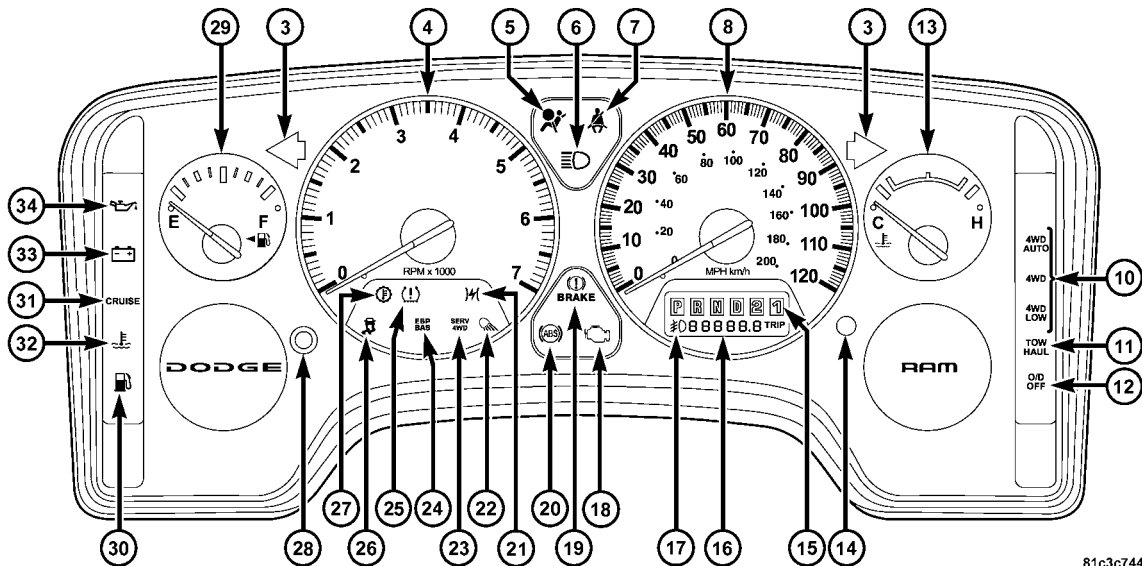
\* If Equipped

- 6 — Passenger Airbag\*
- 7 — Glove Compartment
- 8 — Power Outlet

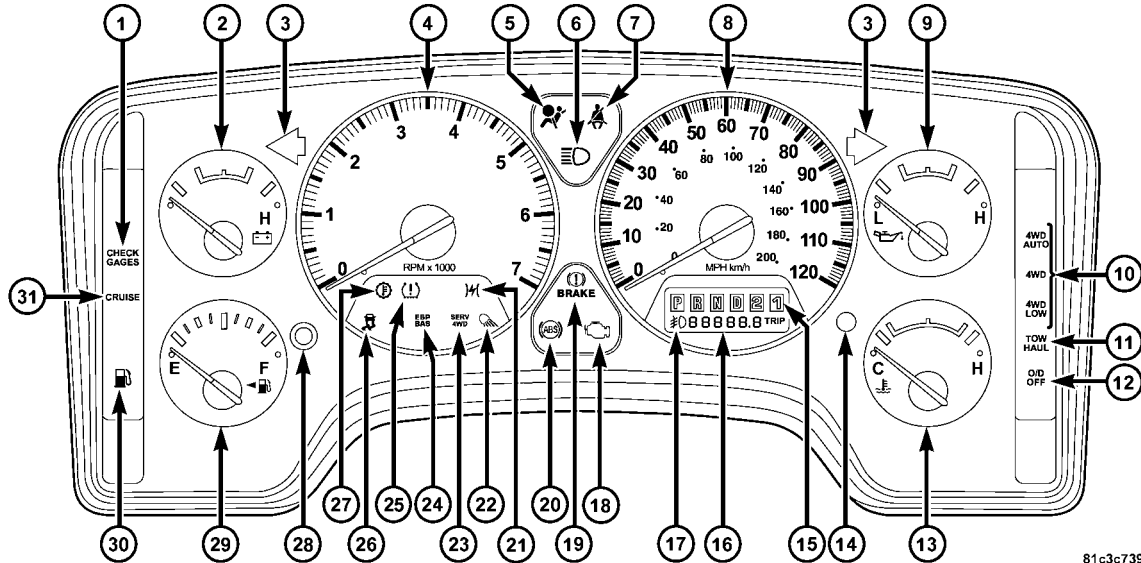
- 9 — Heated Seat Switch
- 10 — TPMS "Light Load" Reset Switch\*

- 11 — Cup Holders
- 12 — Cigar Lighter
- 13 — Electronic Axle Locker and Disconnecting Sway Bar Switch
- 14 — Parking Brake Release Lever
- 15 — Adjustable Pedal Control Switch\*

## INSTRUMENT CLUSTER – BASE



INSTRUMENT CLUSTER – PREMIUM



## INSTRUMENT CLUSTER DESCRIPTION

### 1. Check Gauges – Premium Cluster Only



This light illuminates when the Voltmeter, Engine Oil Pressure or Engine Coolant Temperature gauges indicate a reading either too high or too low. Examine the gauges carefully, and follow the instructions contained below for each indicated problem.

**NOTE:** When the ignition switch is turned to OFF, the Fuel Gauge, Voltmeter, Oil Pressure and Engine Coolant Temperature gauges may not show accurate readings. When the engine is not running, turn the ignition switch to ON to obtain accurate readings.

### 2. Voltmeter



When the engine is running, the gauge indicates the electrical system voltage. The pointer should stay within the normal range if the battery is charged. If the pointer moves to either extreme left or right and remains there during normal driving, the electrical system should be serviced.

### NOTE:

- If the gauge pointer moves to either extreme of the gauge, the “Check Gauges” indicator will illuminate and a single chime will sound.
- The voltmeter may show a gauge fluctuation at various engine temperatures. This cycling operation is caused by the post-heat cycle of the intake manifold heater system. The number of cycles and the length of the cycling operation is controlled by the engine control module. Post-heat operation can run for several minutes, and then the electrical system and voltmeter needle will stabilize.

### 3. Turn Signal Indicators



The arrow will flash with the exterior turn signal when the turn signal lever is operated.

If the vehicle electronics sense that the vehicle has traveled about 1 mile (1.6 km) with the turn signals on, a

continuous chime will sound to alert you to turn the signals off. If either indicator flashes at a rapid rate, check for a defective outside light bulb.

#### 4. Tachometer

The Tachometer indicates engine speed in revolutions per minute.

### CAUTION!

**Do not operate the engine with the tachometer pointer at high RPM for extended periods. Engine damage may occur.**

#### 5. Airbag Warning Light



This light turns on and remains on for seven seconds as a bulb check when the ignition switch is first turned ON. If the light is not on

during starting, stays on, or turns on while driving, have the system inspected by an authorized dealer as soon as possible.

#### 6. High Beam Indicator



This indicator shows that headlights are on high beam.

#### 7. Seat Belt Reminder Light




When the ignition switch is first turned ON, this light will turn on for five to eight seconds as a bulb check. During the bulb check, if the driver's seat belt is unbuckled, a chime will sound. After the bulb check or when driving, if the driver's seat belt remains unbuckled, the Seat Belt Reminder Light will illuminate and the chime will sound. Refer to "Occupant Restraints" in Section 2 for more information.

#### 8. Speedometer

The Speedometer shows the vehicle speed in miles per hour and/or kilometers per hour (mph/kph).

### 9. Oil Pressure Gauge — Premium Cluster Only

 The pointer should always indicate some oil pressure when the engine is running. A continuous high or low reading, under normal driving conditions, may indicate a lubrication system malfunction. Immediate service should be obtained from an authorized dealer.

**NOTE:** If the gauge pointer moves to either extreme of the gauge, the “Check Gauges” indicator will illuminate and a single chime will sound.

### 10. Transfer Case Position

This display indicator shows the transfer case position selection.

For additional information refer to “4-Wheel Drive Operation” in section 5 of this manual.

### 11. TOW HAUL

**TOW/  
HAUL**

The TOW HAUL button is located at the end of the gear shift lever. This light will illuminate when the TOW HAUL OD/OFF button is pushed once.

### 12. OD/OFF

The OD/OFF button is located at the end of the gear shift lever. This light will illuminate when the TOW HAUL OD/OFF button is pushed twice.

### 13. Temperature Gauge



The temperature gauge shows engine coolant temperature. Any reading within the normal range indicates that the engine cooling system is operating satisfactorily.

The gauge pointer will likely indicate a higher temperature when driving in hot weather, up mountain grades, or when towing a trailer. It should not be allowed to exceed the upper limits of the normal operating range.



**CAUTION!**

Driving with a hot engine cooling system could damage your vehicle. If temperature gauge reads "H" pull over and stop the vehicle. Idle the vehicle with the air conditioner turned off until the pointer drops back into the normal range. If the pointer remains on the "H" and you hear continuous chimes, turn the engine off immediately, and call an authorized dealership 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 an authorized dealership for service if your vehicle overheats. If you decide to look under the hood yourself, see Section 7 of this manual. Follow the warnings under the Cooling System Pressure Cap paragraph.

4

**14. Vehicle Security Light — If Equipped**

This light will flash at a fast rate for approximately 15 seconds, when the vehicle security alarm is arming, and then will flash slowly until the vehicle is disarmed.

### 15. *Shift Lever Indicator (Automatic Transmission Only)*

This display indicator shows the automatic transmission shift lever selection.

**NOTE:** You must apply the brakes before shifting from PARK.

### 16. *Odometer/Trip 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.

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).

### *Vehicle Warning Messages*

When the appropriate conditions exist, messages such as “door” (indicates that a door(s) may be ajar), “hood” (if the hood is open or ajar, on vehicles with remote start), “gASCAP” (indicates that your gas cap is possibly loose or damaged), “LoW tire” (indicates low tire pressure), CHANGe OIL” (indicates that the engine oil should be change), “LoWASH” (low washer fluid), “ESPOFF” (indicates that ESP is turned off), and “noFUSE” (indicates that the IOD fuse is removed from the Integrated Power Module), will display in the odometer.

**NOTE:** There is also an engine hour function. This indicates the total number of hours the engine has been running. To display the engine hours perform the following: Place the ignition in RUN, but do not start the

engine. With the odometer value displayed, hold the trip button down for a period of six seconds. The odometer will change to trip value first, then it will display the engine hour value. The engine hours will be displayed for a period of 30 seconds until the ignition is turned OFF or the engine is started.

### *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 engine, the oil change indicator system did not reset. If necessary repeat this procedure.

### *17. Front Fog Light Indicator — If Equipped*

**#D** This indicator will illuminate when the front fog lights are on.

### 18. *Malfunction Indicator Light (MIL)*



The Malfunction Indicator Light (MIL) is part of an onboard diagnostic system, called OBD II, that monitors engine and automatic transmission control systems. The light will illuminate when the key is in the ON position, before engine start. If the bulb does not come on when turning the key from OFF to ON, have the condition checked promptly.

Certain conditions such as a loose or missing gas cap, poor fuel quality, etc., may illuminate the MIL after engine start. The vehicle should be serviced if the light stays on through several of your typical driving cycles. In most situations, the vehicle will drive normally and will not require towing.

If the MIL flashes when the engine is running, serious conditions may exist that could lead to immediate loss of power or severe catalytic converter damage. The vehicle should be serviced as soon as possible if this occurs.

### 19. *Brake Warning Light*

**BRAKE** This light monitors various brake functions, including brake fluid level and parking brake application. If the brake light turns on, it may indicate that the parking brake is applied, that the brake fluid level is low, or that there is a problem with the anti-lock brake system reservoir.

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 that a problem with the Brake Booster has been detected by the Anti-Lock Brake System (ABS) / Electronic Stability Program (ESP) system. 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 and a brake pedal pulsation may be felt during each stop.

The dual brake system provides a reserve braking capacity in the event of a failure to a portion of the hydraulic system. A leak in either half of the dual brake system is indicated by the Brake Warning Light, which will turn on when the brake fluid level in the master cylinder has dropped below a specified level.

The light will remain on until the cause is corrected.

**NOTE:** The light may flash momentarily during sharp cornering maneuvers, which change fluid level conditions. The vehicle should have service performed, and the brake fluid level checked.

If brake failure is indicated, immediate repair is necessary.

### WARNING!

**Driving a vehicle with the red brake light on is dangerous. Part of the brake system may have failed. It will take longer to stop the vehicle. You could have an accident. Have the vehicle checked immediately.**

Vehicles equipped with the Anti-Lock Brake System (ABS), are also equipped with Electronic Brake Force Distribution (EBD). In the event of an EBD failure, the Brake Warning Light will turn on along with the ABS Light. Immediate repair to the ABS system is required.

Operation of the Brake Warning Light can be checked by turning the ignition switch from the OFF position to the ON position. The light should illuminate for approximately two seconds. The light should then turn off unless the parking brake is applied or a brake fault is detected. If the light does not illuminate, have the light inspected by an authorized dealer.

The light also will turn on when the parking brake is applied with the ignition switch in the ON position.

**NOTE:** This light shows only that the parking brake is applied. It does not show the degree of brake application.

### 20. *Anti-Lock Brake (ABS) Light*



This light monitors the Anti-Lock Brake System (ABS). The light will turn on when the ignition switch is turned to the ON position and may stay on for as long as four seconds.

If the ABS light remains on or turns on while driving, it indicates that the Anti-Lock portion of the brake system is not functioning and that service is required. However, the conventional brake system will continue to operate normally if the BRAKE warning light is not on.

If the ABS light is on, the brake system should be serviced as soon as possible to restore the benefits of Anti-Lock brakes. If the ABS light does not turn on when the Ignition switch is turned to the ON position, have the light inspected by an authorized dealer.

### 21. *Electronic Throttle Control (ETC) Light*



This light informs you of a problem with the Electronic Throttle Control (ETC) system. If a problem is detected, the light will come on while the engine is running. Cycle the ignition key when the vehicle has completely stopped and the shift lever is placed in the PARK position. The light should turn off. If the light remains lit with the engine running, your vehicle will usually be drivable; however, see an 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 briefly as a bulb check. If the light does not come on during starting, have the system checked by an authorized dealer.

## 22. Cargo Light



The Cargo Lamp light will illuminate when the Cargo Lamp is activated by pressing the Cargo Light Button on the headlight switch.

## 23. SERV 4WD Indicator



The 4WD indicator will be illuminated whenever the 4WD mode is engaged for either the manual or electric shift 4WD systems. The SERV 4WD indicator monitors the electric shift 4WD system. If the SERV 4WD light stays on or comes on during driving, it means that the 4WD system is not functioning properly and that service is required.

## 24. Electronic Stability Program (ESP) / Brake Assist System (BAS) Warning Lamp – If Equipped



The malfunction light for the Electronic Stability Program (ESP) is combined with Brake Assist System (BAS). The yellow ESP/BAS warning lamp is in the instrument cluster it

comes on when the ignition switch is turned to the ON position, it 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 at speeds greater than 30 mph (48 km/h), see an authorized dealer as soon as possible.

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

## 25. Tire Pressure Monitoring Telltale Light — If Equipped



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 is 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.

**26. Electronic Stability Program (ESP) Indicator Light/  
Traction Control System (TCS) Indicator Light — If  
Equipped**



If this indicator light flashes during acceleration, apply as little throttle as possible. While driving, ease up on the accelerator. Adapt your

speed and driving to the prevailing road conditions, and do not switch off the Electronic Stability Program (ESP), or Traction Control System (TCS).

**27. Transmission Temperature Indicator (Automatic  
Transmissions Only)**



This light indicates that there is excessive transmission fluid temperature that might occur with severe usage such as trailer towing. It may also occur when operating the vehicle in a high torque converter slip condition, such as 4-wheel-drive operation (e.g., snow plowing, off-road operation). 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.

**28. 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 when in trip mode.

### 29. Fuel Gauge

Shows level of fuel in tank when ignition switch is in the ON position.

### 30. Low Fuel Light



When the fuel level drops to 1/16 tank, the fuel symbol will light and a single chime will sound.

**NOTE:** If your vehicle is equipped with an overhead console module (CMTC), it is possible for DTE to display “LO FUEL” before the low fuel warning light turns on in the instrument cluster. This could occur because the low fuel warning is set to a specified fuel tank volume and DTE is an estimated distance calculation based on vehicle fuel economy and remaining fuel tank volume.

*Vehicle fuel tank volumes are as follows:*

- 26 gal (98 L) - 1500 short box models
- 34 gal (128 L) - 1500/2500/3500 short box models
- 35 gal (132 L) - 1500/2500/3500 long box models

### 31. CRUISE Indicator

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

### 32. Engine Temperature Warning Light



This light warns of an overheated engine condition. As temperatures rise and the gauge approaches **H**, this indicator will illuminate and a single chime will sound after reaching a set threshold. Further overheating will cause the temperature gauge to pass **H**, the indicator will continuously flash and a continuous chime will occur until the engine is allowed to cool.

If the light turns on while driving, safely pull over and stop the vehicle. If the A/C system is on, turn it off. Also, shift the transmission into NEUTRAL and idle the vehicle. If the temperature reading does not return to normal, turn the engine off immediately and call for service. Refer to “If Your Engine Overheats” in Section 6 for more information.

### 33. *Charging System Light*



This light shows the status of the electrical charging system. The light should come on when the ignition switch is first turned ON and remain on briefly as a bulb check. If the light stays on or comes on while driving, turn off some of the vehicle's non-essential electrical devices or increase engine speed (if at idle). If the charging system light remains on, it means that the vehicle is experiencing a problem with the charging system. Obtain SERVICE IMMEDIATELY. See an authorized dealer.

### 34. *Oil Pressure Warning Light*



This light indicates low engine oil pressure. The light should turn on momentarily when the engine is started. If the light turns on while driving, stop the vehicle and shut off the engine as soon as possible. A chime will sound for four minutes when this light turns on.

Do not operate the vehicle until the cause is corrected. This light does not indicate how much oil is in the engine. The engine oil level must be checked under the hood.

### **ELECTRONIC DIGITAL CLOCK**

The clock and radio each use the display panel built into the radio. A digital readout shows the frequency and/or time in hours and minutes (depending on your radio model) whenever the ignition switch is in the ON or ACC position.

When the ignition switch is in the OFF position, or when the radio frequency is being displayed, time keeping is accurately maintained.

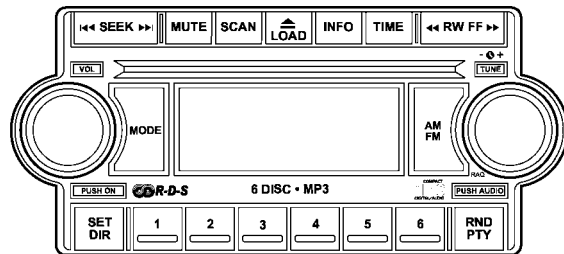
On the RAQ radio the time button alternates the location of the time and frequency on the display. On the REF only one of the two, time or frequency, is displayed at a time.

## Clock Setting Procedure

1. Press and hold the time button until the hours blink.
2. Adjust the hours by turning the right side Tune/Audio control.
3. After the hours are adjusted, press the right side Tune/Audio control to set the minutes.
4. Adjust the minutes using the right side Tune/Audio control.
5. To exit, press any button/knob or wait approximately five seconds.

## SALES CODE RAQ – AM/FM/CD (6-DISC) RADIO WITH OPTIONAL uconnect® studios (SATELLITE RADIO), uconnect® phone, AND VIDEO ENTERTAINMENT SYSTEMS (VES)™ CAPABILITIES

**NOTE:** The radio sales code is located on the lower right side of your radio faceplate.



RAQ Radio

## Operating Instructions - Radio Mode

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

### Power Switch/Volume Control (Rotary)

Push the ON/VOL control to turn the radio ON. Push the ON/VOL a second time to turn OFF the radio.

### Electronic Volume Control

The electronic volume control turns continuously (360 degrees) in either direction without stopping. Turning the volume control to the right increases the volume and to the left decreases it.

When the audio system is turned on, the sound will be set at the same volume level as last played.

For your convenience, the volume can be turned down, but not up, when the audio system is off and the ignition is ON.

### MODE Button (Radio Mode)

Press the MODE button repeatedly to select between the CD player, Satellite Radio, or Video Entertainment System (VES)<sup>TM</sup> (if equipped).

### SEEK Button (Radio Mode)

Press and release the SEEK button to search for the next listenable station in either AM/FM or Satellite (if equipped) mode. Press the right side of the button to seek up and the left side to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button will bypass stations without stopping until you release it.

### MUTE Button (Radio Mode)

Press the MUTE button to cancel the sound from the speakers. "MUTE" will be displayed. Press the MUTE button a second time and the sound from the speakers

will return. Rotating the volume control, turning the radio ON/OFF, or turning OFF the ignition will also return the sound from the speakers

**NOTE:** In Hands Free Phone (if equipped) mode, the MUTE button mutes the microphone.

### **SCAN Button (Radio Mode)**

Pressing the SCAN button causes the tuner to search for the next listenable station, in either AM, FM or Satellite (if equipped) frequencies, pausing for 5 seconds at each listenable station before continuing to the next. To stop the search, press SCAN a second time.

### **MSG or INFO Button (Radio Mode)**

Press the MSG or INFO button for an RBDS station (one with call letters displayed). The radio will return a radio text message broadcast from an FM station (FM mode only).

### **TIME Button**

Press the TIME button and the time of day will be displayed for 5 seconds.

### **Clock Setting Procedure**

1. Press and hold the TIME button until the hours blink.
2. Adjust the hours by turning the right side Tune / Audio control.
3. After the hours are adjusted, press the right side Tune / Audio control to set the minutes. The minutes will begin to blink.
4. Adjust the minutes using the right side Tune / Audio control.
5. To exit, press any button/knob or wait 5 seconds.

**RW/FF (Radio Mode)**

Pressing the Rewind/Fast Forward button causes the tuner to search for the next frequency in the direction of the arrows. This feature operates in either AM, FM or Satellite (if equipped) frequencies.

**TUNE Control (Radio Mode)**

Turn the right side rotary TUNE control clockwise to increase or counter-clockwise to decrease the channel number.

**AM/FM Button (Radio Mode)**

Press the button to select AM or FM modes.

**Setting the Tone, Balance, and Fade**

Press the rotary TUNE control and "BASS" will display. Turn the TUNE control to the right or left to increase or decrease the Bass tones.

Press the rotary TUNE control a second time and "MID" will display. Turn the TUNE control to the right or left to increase or decrease the Mid Range tones.

Press the rotary TUNE control a third time and "TREBLE" will display. Turn the TUNE control to the right or left to increase or decrease the Treble tones.

Press the rotary TUNE control a fourth time and "BALANCE" will display. Turn the TUNE control to the right or left to adjust the sound level from the right or left side speakers.

Press the rotary TUNE control a fifth time and "FADE" will display. Turn the TUNE control to the left or right to adjust the sound level between the front and rear speakers.

Press the rotary TUNE control again to exit setting tone, balance and fade.

**RND/PTY Button (Program Type Radio Mode)**

Pressing this button once will turn on the PTY mode for 5 seconds. If no action is taken during the 5 second time out the PTY icon will turn off. Pressing the PTY button or turning the TUNE rotary knob within 5 seconds will allow the program format type to be selected. Many radio stations do not currently broadcast PTY information.

Toggle the PTY button to select the following format types:

Program Type	16 Digit-Character Display
No program type or undefined	None
Adult Hits	Adult_Hits
Alert Alert	Alert Alert
Classical	Classical
Classic Rock	Classic_Rock
College	College

Program Type	16 Digit-Character Display
Country	Country
Emergency Test	Emergency Test
Foreign Language	Foreign_Language
Information	Information
Jazz	Jazz
News	News
Nostalgia	Nostalgia
Oldies	Oldies
Personality	Personality
Public	Public
Rhythm and Blues	Rhythm_and_Blues
Religious Music	Religious_Music
Religious Talk	Religious_Talk
Rock	Rock
Soft	Soft



Program Type	16 Digit-Character Display
Soft Rock	Soft_Rock
Soft Rhythm and Blues	Soft_R_&_B
Sports	Sports
Talk	Talk
Top 40	Top_40
Weather	Weather

By pressing the SEEK button when the PTY icon is displayed, the radio will be tuned to the next frequency station with the same selected PTY name. The PTY function only operates when in the FM mode.

If a preset button is activated while in the PTY (Program Type) mode, the PTY mode will be exited and the radio will tune to the preset station.

### SET/DIR Button (Radio Mode) — To Set the Pushbutton Memory

When you are receiving a station that you wish to commit to pushbutton memory, press the SET/DIR button. The symbol SET 1 will now show in the display window. Select the button (1-6) you wish to lock onto this station and press and release that button. If a button is not selected within 5 seconds after pressing the SET/DIR button, the station will continue to play but will not be stored into pushbutton memory.

You may add a second station to each pushbutton by repeating the above procedure with this exception: Press the SET/DIR button twice and “SET 2” will show in the display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 12 AM, 12 FM and 12 Satellite (if equipped) stations to be stored into pushbutton memory. The stations stored in SET 2 memory can be selected by pressing the pushbutton twice.

Every time a preset button is used a corresponding button number will be displayed.

### **Buttons 1 - 6 (Radio Mode)**

These buttons tune the radio to the stations that you commit to pushbutton memory {12 AM, 12 FM, and 12 Satellite (if equipped) stations}.

### **Operation Instructions - (CD Mode for CD Audio Play)**

#### **NOTE:**

- The ignition switch must be in the ON or ACC position to operate the radio.
- Note: This radio is capable of playing compact discs (CD), recordable compact discs (CD-R), rewritable compact discs (CD-RW) compact discs with MP3 tracks and multisession compact discs with CD and MP3 tracks.

### **Inserting Compact Disc(s)**

Gently insert one CD into the CD player with the CD label facing up. The CD will automatically be pulled into the CD player and the CD icon will illuminate on the radio display.

#### **CAUTION!**

**This CD player will accept 4 3/4 inch (12 cm) discs only. The use of other sized discs may damage the CD player mechanism.**

You may eject a disc with the radio OFF.

If you insert a disc with the ignition ON and the radio ON, the unit will switch from radio to CD mode and begin to play when you insert the disc. The display will show the disc number, the track number, and index time in minutes and seconds. Play will begin at the start of track 1.

**SEEK Button (CD Mode for CD Audio Play)**

Press the right side of the SEEK button for the next selection on the CD. Press the left side of the button to return to the beginning of the current selection, or return to the beginning of the previous selection if the CD is within the first 10 seconds of the current selection.

**MUTE Button (CD Mode for CD Audio Play)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will be displayed. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control, turning the radio ON/OFF, or turning OFF the ignition will also return the sound from the speakers.

**SCAN Button (CD Mode for CD Audio Play)**

Press the SCAN button to scan through each track on the CD currently playing.

**LOAD/EJECT Button (CD Mode for CD Audio Play)****LOAD/ EJECT - Load**

Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD is being loaded. The radio will display "PLEASE WAIT" and prompt when to INSERT

DISC. After the radio displays "LOAD DISC" insert the CD into the player.

The radio display will show "LOADING DISC" when the disc is loading, and "READING DISC" when the radio is reading the disc.

**LOAD/ EJECT - Eject**

Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD was loaded and the disc will unload and move to the entrance for easy removal. The

radio display will show "EJECTING DISC" when the disc is being ejected and prompt the user to remove the disc.

Press and hold the LOAD/ EJECT button for 5 seconds and all CDs will be ejected from the radio.

If you have ejected a disc and have not removed it within 15 seconds, it will be reloaded. If the CD is not removed, the radio will continue to play the non-removed CD. If the CD is removed and there are other CD's in the radio, the radio will play the next CD after a 2 minute timeout. If the CD is removed and there are no other CD's in the radio, the radio will remain in CD mode and display "INSERT DISC" for 10 seconds. If no discs are inserted within 10 seconds "NO DISCS LOADED" will be displayed.

On some vehicles a disc can be ejected with the radio and ignition OFF.

**TIME Button (CD Mode for CD Audio Play)**

Press this button to change the display from a large CD playing time display to a small CD playing time display.

**RW/FF (CD Mode for CD Audio Play)**

Press and hold FF (Fast Forward) and the CD player will begin to fast forward until FF is released or RW or another CD button is pressed. The RW (Rewind) button works in a similar manner.

**TUNE Control (CD Mode for CD Audio Play)**

Pressing the TUNE control allows the setting of the Tone, Fade, and Balance. See Radio Mode.

**AM/FM Button (CD Mode for CD Audio Play)**

Switches the radio into the AM or FM radio mode.

**RND/PTY Button (Random Play Button) (CD Mode for CD Audio Play)**

Press this button while the CD is playing to activate Random Play. This feature plays the selections on the compact disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press and hold the FF button to fast forward through the tracks. Release the FF button to stop the fast forward feature.

Press the RND button a second time to stop Random Play.

**Buttons 1 - 6 (CD Mode for CD Audio Play)**

Selects disc positions 1 - 6 for Play/Load/Eject.

**Notes On Playing MP3 Files**

The radio can play MP3 files, however, acceptable MP3 file recording media and formats are limited. When writing MP3 files, pay attention to the following restrictions.

**Supported Media (Disc Types)**

The MP3 file recording media supported by the radio are CD-ROM, CD-R and CD-RW.

**Supported Medium Formats (File Systems)**

The medium formats supported by the radio are ISO 9660 Level 1 and Level 2 and includes the Joliet extension. When reading discs recorded using formats other than ISO 9660 Level 1 and Level 2, the radio may fail to read files properly and may be unable to play the file normally. UDF and Apple HFS formats are not supported.

The radio uses the following limits for file systems:

- Maximum number of directory levels: 15
- Maximum number of files: 255
- Maximum number of folders: 100
- Maximum number of characters in file/folder names:
  - Level 1: 12 (including a separator "." and a 3-character extension)
  - Level 2: 31 (including a separator "." and a 3-character extension)

Multisession disc formats are supported by the radio. Multisession discs may contain combinations of normal CD audio tracks and computer files (including MP3 files). Discs created with an option such as "keep disc open after writing" are most likely multisession discs. The use of multisession for CD audio or MP3 playback may result in longer disc loading times.

### Supported MP3 File Formats

The radio will recognize only files with the \*.mp3 extension as MP3 files. Non-MP3 files named with the \*.mp3 extension may cause playback problems. The radio is designed to recognize the file as an invalid MP3 and will not play the file.

When using the MP3 encoder to compress audio data to an MP3 file, the bit rate and sampling frequencies in the following table are supported. In addition, variable bit rates (VBR) are also supported. The majority of MP3 files use a 44.1 kHz sampling rate and a 192, 160, 128, 96 or VBR bit rates.

MPEG Specification	Sampling Frequency (kHz)	Bit rate (kbps)
MPEG-1 Audio Layer 3	48, 44.1, 32	320, 256, 224, 192, 160, 128, 112, 96, 80, 64, 56, 48, 40, 32
MPEG-2 Audio Layer 3	24, 22.05, 16	160, 128, 144, 112, 96, 80, 64, 56, 48, 40, 32, 24, 16, 8

ID3 Tag information for artist, song title and album title are supported for version 1 ID3 tags. ID3 version 2 is not supported by the radios.

Playlist files are not supported. MP3 Pro files are not supported.

### Playback of MP3 Files

When a medium containing MP3 data is loaded, the radio checks all files on the medium. If the medium contains a lot of folders or files, the radio will take more time to start playing the MP3 files.

Loading times for playback of MP3 files may be affected by the following:

- Media - CD-RW media may take longer to load than CD-R media
- Medium formats - Multisession discs may take longer to load than non-multisession discs
- Number of files and folders - Loading times will increase with more files and folders

To increase the speed of disc loading, it is recommended to use CD-R media and single-session discs. To create a single-session disc, enable the Disc at Once option before writing to the disc.

## Operation Instructions - (CD Mode for MP3 Audio Play)

### SEEK Button (CD Mode for MP3 Play)

Pressing the right side of the SEEK button plays the next MP3 File. Pressing the left side of the SEEK button plays the beginning of the MP3 file. Pressing the button within the first ten seconds plays the previous file.

### LOAD/EJECT Button (CD Mode for MP3 Play)

#### LOAD/ EJECT - Load



Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD is being loaded. The radio will display "PLEASE WAIT" and prompt when to INSERT DISC. After the radio displays "LOAD DISC" insert the CD into the player.

The radio display will show "LOADING DISC" when the disc is loading.

#### LOAD/ EJECT - Eject



Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD was loaded and the disc will unload and move to the entrance for easy removal. The radio display will show "EJECTING DISC" when the disc is being ejected and prompt the user to remove the disc.

If you have ejected a disc and have not removed it within 15 seconds, it will be reloaded. If the CD is not removed, the radio will continue to play the non-removed CD. If the CD is removed and there are other CD's in the radio, the radio will play the next CD after a 2 minute timeout. If the CD is removed and there are no other CD's in the radio, the radio will remain in CD mode and display "INSERT DISC" for 2 minutes. After 2 minutes the radio will go to the previous tuner mode.



**MSG or INFO Button (CD Mode for MP3 Play)**

Press and MSG or INFO button while playing MP3 disc. The radio scrolls through the following TAG information: Song Title, Artist, File Name, and Folder Name (if available).

Press the MSG or INFO button once more to return to "elapsed time" priority mode.

Press and hold the MSG or INFO button while in the message display priority mode or elapsed time display priority mode will display the song title for each file.

**RW/FF (CD Mode for MP3 Play)**

Press the FF side of the button to move forward through the MP3 selection.

**TUNE Control (CD Mode for MP3 Play)**

Pressing the TUNE Control allows the adjustment of Tone, Balance, and Fade.

**AM/FM Button (CD Mode for MP3 Play)**

Switches back to radio mode.

**RND/ PTY Button (CD Mode for MP3 Play)**

Pressing this button plays files randomly.

**SET/DIR Button (CD Mode for MP3 Play)**

Press the SET/DIR button to display folders, when playing an MP3 discs that have a file/folder structure. Turn the TUNE control to display available folders or move through available folders. Press the TUNE control to select a folder.

**Buttons 1 - 6 (CD Mode for MP3 Play)**

Selects disc positions 1 - 6 for Play/Load/Eject.

**Operating Instructions - uconnect® phone (If Equipped)**

Refer to uconnect® phone in Section 3 of the Owner's Manual.

### Operating Instructions - uconnect® studios (Satellite Radio) (If Equipped)

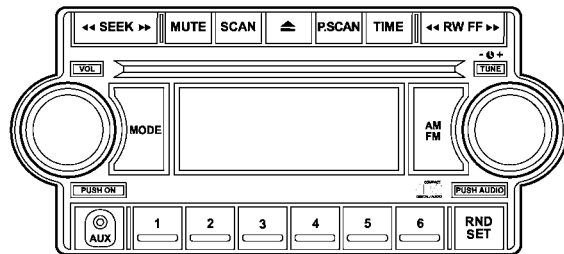
Refer to the uconnect® studios (Satellite Radio) section of the Owner's Manual.

### Operating Instructions - Video Entertainment System (VES)™ (If Equipped)

Refer to separate Video Entertainment System (VES)™ Guide.

### SALES CODE REF — AM/FM/CD (SINGLE-DISC) RADIO WITH OPTIONAL uconnect® studios (SATELLITE RADIO) AND uconnect® phone CAPABILITY

**NOTE:** The radio sales code is located on the lower right side of your radio faceplate.



815eb156

#### REF Radio

### Operating Instructions - Radio Mode

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

**Power Switch/Volume Control (Rotary)**

Push the ON/VOL control to turn the radio ON. Push the ON/VOL a second time to turn OFF the radio.

**Electronic Volume Control**

The electronic volume control turns continuously (360–degrees) in either direction without stopping. Turning the volume control to the right increases the volume and to the left decreases it.

When the audio system is turned on, the sound will be set at the same volume level as last played.

For your convenience, the volume can be turned down, but not up, when the audio system is OFF and the ignition is ON.

**MODE Button (Radio Mode)**

Press the MODE button repeatedly to select between the CD player and Satellite Radio (if equipped).

**SEEK Button (Radio Mode)**

Press and release the SEEK button to search for the next listenable station in either AM/FM or Satellite (if equipped) mode. Press the right side of the button to seek up and the left side to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button will bypass stations without stopping until you release it.

**MUTE Button (Radio Mode)**

Press the MUTE button to cancel the sound from the speakers. “MUTE” will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control, turning the radio ON/OFF, or turning the ignition ON/OFF, will cancel the MUTE feature.

**NOTE:** In Hands-Free Phone (if equipped) mode, the MUTE button mutes the microphone.

**SCAN Button (Radio Mode)**

Pressing the SCAN button causes the tuner to search for the next listenable station in either, AM, FM, or Satellite (if equipped) frequencies, pausing for five seconds at each listenable station before continuing to the next. To stop the search, press SCAN a second time.

**PSCAN Button (Radio Mode)**

Pressing the PSCAN button causes the tuner to scan through preset stations in either AM, FM, or Satellite (if equipped) frequencies, pausing for five seconds at each preset station before continuing to the next. To stop the search, press PSCAN a second time.

**TIME Button**

Press the TIME button and the time of day will display for five seconds.

**Clock Setting Procedure**

1. Press and hold the TIME button until the hours blink.

2. Adjust the hours by turning the TUNE/AUDIO control.

3. After the hours are adjusted, press the TUNE/AUDIO control to set the minutes. The minutes will begin to blink.

4. Adjust the minutes using the TUNE/AUDIO control.

5. To exit, press any button/knob or wait five seconds.

**RW/FF (Radio Mode)**

Pressing the Rewind/Fast Forward button causes the tuner to search for the next frequency in the direction of the arrows. This feature operates in either AM, FM or Satellite (if equipped) frequencies.

**TUNE Control (Radio Mode)**

Turn the rotary TUNE control clockwise to increase or counterclockwise to decrease the frequency.

**AM/FM Button (Radio Mode)**

Press the button to select AM or FM modes.

**Setting the Tone, Balance, and Fade**

Press the rotary TUNE control, and “BASS” will display. Turn the TUNE control to the right or left to increase or decrease the Bass tones.

Press the rotary TUNE control a second time and “MID” will display. Turn the TUNE control to the right or left to increase or decrease the Mid-Range tones.

Press the rotary TUNE control a third time and “TREB” will display. Turn the TUNE control to the right or left to increase or decrease the Treble tones.

Press the rotary TUNE control a fourth time and “BAL” will display. Turn the TUNE control to the right or left to adjust the sound level from the right or left side speakers.

Press the rotary TUNE control a fifth time and “FADE” will display. Turn the TUNE control to the left or right to adjust the sound level between the front and rear speakers.

Press the TUNE control again or wait five seconds to exit setting tone, balance, and fade.

**RND/SET Button (Radio Mode) To Set The Pushbutton Memory**

When you are receiving a station that you wish to commit to pushbutton memory, press the SET button. The symbol SET 1 will now show in the display window. Select the button (1-6) you wish to lock onto this station and press and release that button. If a button is not selected within five seconds after pressing the SET button, the station will continue to play but will not be stored into pushbutton memory.

You may add a second station to each pushbutton by repeating the above procedure with this exception: Press

the SET button twice and “SET 2” will show in the display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 12 AM, 12 FM, and 12 Satellite (if equipped) stations to be stored into pushbutton memory. The stations stored in SET 2 memory can be selected by pressing the pushbutton twice.

Every time a preset button is used, a corresponding button number will display.

### **Preset Buttons 1 - 6 (Radio Mode)**

These buttons tune the Radio to the stations that you commit to pushbutton memory, 12 AM, 12 FM, and 12 Satellite (if equipped) stations.

### **Operating Instructions - CD Mode**

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

### **Inserting The Compact Disc (Single CD Player)**

Gently insert one CD into the CD player with the CD label facing up. The CD will automatically be pulled into the CD player and the CD icon will illuminate on the radio display.

If the volume control is ON, the unit will switch to CD mode and begin to play. The display will show the track number and play time in minutes and seconds. Play will begin at the start of track one.

#### **NOTE:**

- On some vehicles, you may insert or eject a disc with the radio or ignition switch OFF.
- If you insert a disc with the ignition ON and the radio OFF, the CD will automatically be pulled into the CD player.
- This radio does not play discs with MP3 tracks.

**SEEK Button (CD Mode)**

Press the right side of the SEEK button for the next track on the CD. Press the left side of the button to return to the beginning of the current track, or return to the beginning of the previous track if the CD is within the first 10 seconds of the current selection.

**MUTE Button (CD Mode)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control or turning the ignition OFF/ON will also return the sound from the speakers.

**SCAN Button (CD Mode)**

Press this button to play the first 10 seconds of each track. To stop the scan function, press the button a second time.

**EJECT Button (CD Mode)**

Press this button and the disc will unload and move to the entrance for easy removal. The unit will switch to the last selected mode.

If you do not remove the disc within 15 seconds, it will be reloaded. The radio mode will continue to appear.

**TIME Button (CD Mode)**

Press this button to change the display from elapsed CD playing time to time of day. The time of day will display for five seconds.

**RW/FF (CD Mode)**

Press and hold the FF (Fast Forward) and the CD player will begin to fast forward until FF is released. The RW (Rewind) button works in a similar manner.

Press and hold the FF button to fast forward through the tracks. Release the FF button to stop the fast forward feature. If the RW button is pressed, the current track will reverse to the beginning of the track and begin playing.

**RND/SET Button (Random Play Button) (CD Mode)**

Press this button while the CD is playing to activate Random play. This feature plays the selections on the compact disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press the RND button a second time to stop Random play.

**Operating Instructions - Auxiliary Mode**

The auxiliary (AUX) jack is an audio input jack, which allows the user to plug in a portable device such as an MP3 player, cassette player, or microphone and utilize the vehicle's audio system to amplify the source and play through the vehicle speakers.

The auxiliary mode becomes active when an electrical device is plugged into the AUX jack using a standard 3.5 mm stereo audio cable and the user presses and releases the MODE button until "AUX" appears on the display.

**NOTE:** The radio will return to the last stored mode if the ignition switch is turned from the OFF/LOCK position to the ACC position, the radio is turned on, and the radio was previously in the AUX mode.

**SEEK Button (Auxiliary Mode)**

No function.

**MUTE Button (Auxiliary Mode)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control or turning the ignition OFF/ON will also return the sound from the speakers.



**SCAN Button (Auxiliary Mode)**

No function.

**EJECT Button (Auxiliary Mode)**

No function.

**PSCAN Button (Auxiliary Mode)**

No function.

**TIME Button (Auxiliary Mode)**

Press this button to change the display from elapsed playing time to time of day. The time of day will display for five seconds.

**RW/FF (Auxiliary Mode)**

No function.

**RND/SET Button (Auxiliary Mode)**

No function.

**MODE Button (Auxiliary Mode)**

Press the MODE button repeatedly to select between the CD player and Satellite Radio (if equipped).

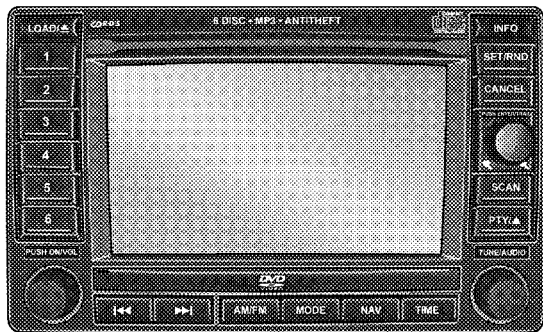
**Operating Instructions - uconnect® phone — If Equipped**

Refer to the “uconnect® phone” section of this Owner’s Manual.

**Operating Instructions - uconnect® studios (Satellite Radio) — If Equipped**

Refer to the “uconnect® studios (Satellite Radio)” section of this Owner’s Manual.

## SALES CODE REC — AM/FM/CD (6-DISC) RADIO WITH uconnect® gps (NAVIGATION)



81c704b4

Satellite Navigation Radio and CD Player with MP3 Capability (REC) - combines a Global-Positioning System-based navigation system with an integrated color screen to provide maps, turn identification, selection

menus and instructions for selecting a variety of destinations and routes, AM/FM stereo radio and six-disc CD changer with MP3 capability.

Mapping information for navigation is supplied on a DVD that is loaded into the unit. One map DVD covers all of North America. Refer to your "Navigation User's Manual" for detailed operating instructions.

### Operating Instructions — uconnect® studios (Satellite Radio) — If Equipped

Refer to your "Navigation User's Manual" for detailed operating instructions.

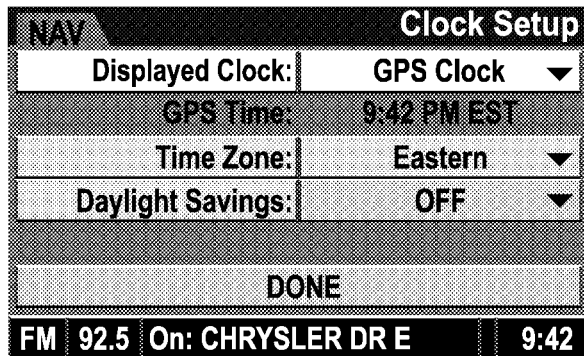
### REC Setting the Clock

#### GPS Clock

The GPS receiver used in this system is synchronized to the time data being transmitted by the GPS satellites. The satellites' clock is Greenwich Mean Time (GMT). This is

the worldwide standard for time. This makes the system's clock very accurate once the appropriate time zone and daylight savings information is set.

1. At the **Main Menu** screen, highlight "Clock Setup" and press ENTER OR press and hold the TIME button on the unit's faceplate for three seconds. The **Clock Setup** screen appears.



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2. To show the GPS clock, select "Displayed Clock: GPS Clock" and press ENTER.

3. To adjust the time zone, Select "Time Zone" and press ENTER. Select the appropriate time zone and press ENTER.

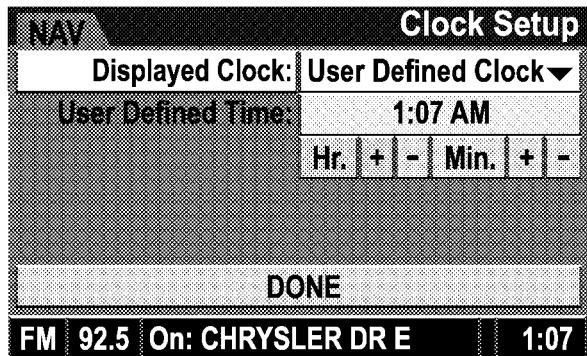
4. To turn daylight savings on or off, select "Daylight Savings" and press ENTER. Select "On" or "Off" and press ENTER.

5. Select DONE to exit from the clock setting mode. Press ENTER to save your changes. If you press CANCEL or NAV then your changes will not be saved.

### User Defined Clock

If you wish to set the clock to a time different than the system clock, you can manually adjust the time by choosing the “User Defined Clock” option.

1. At the **Clock Setup** screen highlight “Displayed Clock: User Defined Clock”.



2. To increase the clock by hours, make sure “HR +” is highlighted and press ENTER. Press ENTER again to increase the clock by another hour. You will see on the “User Defined Time” display the number of hours you have increased the clock by.

3. To decrease the clock by one hour, use the Select Encoder to highlight the “-” sign. Press ENTER. Press ENTER again to decrease the clock by another hour.

4. To increase the clock by minutes, make sure “MIN +” is highlighted and press ENTER. Press ENTER again to increase the clock by another minute.

5. To decrease the clock by minutes, use the Select Encoder to highlight the “-” sign. Press ENTER. Press ENTER again to decrease the clock by another minute.

6. Select “DONE” to exit from the clock setting mode. Press ENTER to save your changes. If you press CANCEL or NAV then your changes will not be saved.

## **uconnect® studios (SATELLITE RADIO) — IF EQUIPPED**

Satellite radio uses direct satellite to receiver broadcasting technology to provide clear digital sound, coast to coast. The subscription service provider is Sirius Satellite Radio. This service offers over 130 channels of music, sports, news, entertainment, and programming for children, directly from its satellites and broadcasting studios.

**NOTE:** Sirius service is not available in Hawaii and has limited coverage in Alaska.

### **System Activation**

Sirius Satellite Radio service is pre-activated, and you may begin listening immediately to the one year of audio service that is included with the factory-installed satellite radio system in your vehicle. Sirius will supply a welcome kit that contains general information, including how to setup your on-line listening account at no additional charge. For further information, call the toll-free

number 888-539-7474, or visit the Sirius web site at [www.sirius.com](http://www.sirius.com), or at [www.siriuscanada.ca](http://www.siriuscanada.ca) for Canadian residents.

### **Electronic Serial Number/Sirius Identification Number (ESN/SID)**

Please have the following information available when calling:

1. The Electronic Serial Number/Sirius Identification Number (ESN/SID).
2. Your Vehicle Identification Number.

To access the ESN/SID, refer to the following procedure.

### **ESN/SID Access with REF Radios**

With the ignition switch in the ACC position and the radio OFF, press the CD Eject and TIME buttons simultaneously for three seconds. The first four digits of the 12-digit ESN/SID number will display. Press the SEEK UP button to display the next four digits. Continue to

press the SEEK UP button until all 12 ESN/SID digits display. The SEEK DOWN will page down until the first four digits display. The radio will exit the ESN/SID mode when any other button is pushed, the ignition is turned OFF, or five minutes have passed since any button was pushed.

#### **ESN/SID Access with RAQ and RAK Radios**

With the ignition switch in the ACC position and the radio OFF, press the CD Eject and TIME buttons simultaneously for three seconds. All twelve ESN/SID numbers will display. The radio will exit the ESN/SID mode when any other button is pushed, the ignition is turned OFF, or five minutes have passed since any button was pushed.

#### **ESN/SID Access with REC Navigation Radios**

Please refer to your Navigation User's Manual.

With the ignition in the ACC position and the radio off, press the CD Eject and SET buttons simultaneously until the 12 digits of the ESN/SID appear on the screen.

#### **Selecting uconnect® studios (Satellite) Mode in REF, RAQ, And RAK Radios**

##### **Selecting Satellite Mode — REF Radio**

Press the MODE button repeatedly until the word "SAT" appears in the display.

A CD may remain in the radio while in the Satellite radio mode.

### Selecting Satellite Mode — RAQ and RAK Radio

Press the MODE button repeatedly until the word "SAT" appears in the display.

These radios will also display the current station name and program type. For more information, such as song title and artist, press the MSG or INFO button.

A CD or tape may remain in the radio while in the Satellite radio mode.

### Selecting A Channel

Press and release the SEEK or TUNE knob to search for the next channel. Press the top of the button to search up and the bottom of the button to search down. Holding the TUNE button causes the radio to bypass channels until the button is released.

Press and release the SCAN button (if equipped) to automatically change channels every seven seconds. The radio will pause on each channel for seven seconds

before moving on to the next channel. The word "SCAN" will appear in the display between each channel change. Press the SCAN button a second time to stop the search.

**NOTE:** Channels that may contain objectionable content can be blocked. Contact Sirius Customer Care at 888-539-7474 to discuss options for channel blocking or unblocking. Please have your ESN/SID information available.

### Storing And Selecting Preset Channels

In addition to the 12 AM and 12 FM preset stations, you may also commit 12 satellite stations to pushbutton memory. These satellite channel preset stations will not erase any AM or FM preset memory stations. Follow the memory preset procedures that apply to your radio.

### Using The PTY (Program Type) Button — If Equipped

Follow the PTY button instructions that apply to your radio.

**PTY Button SCAN**

When the desired program type is obtained, press the SCAN button within five seconds. The radio will play seven seconds of the selected channel before moving to the next channel of the selected program type. Press the SCAN button a second time to stop the search.

**NOTE:** Pressing the SEEK or SCAN button, while performing a music-type scan, will change the channel by one and stop the search. Pressing a preset memory button during a music-type scan will call up the memory channel and stop the search.

**PTY Button SEEK**

When the desired program is obtained, press the SEEK button within five seconds. The channel will change to the next channel that matches the program type selected.

**Satellite Antenna**

To ensure optimum reception on vehicles available with a luggage rack, do not place items on the roof around the

rooftop antenna location. Metal objects placed within the line of sight of the antenna will cause decreased performance. Larger luggage items should be placed as far forward as possible. Do not place items directly on or above the antenna.

**Reception Quality**

Satellite reception may be interrupted due to one of the following reasons:

- The vehicle is parked in an underground parking structure or under a physical obstacle.
- Dense tree coverage may interrupt reception.
- Driving under wide bridges or along tall buildings can cause intermittent reception.
- Placing objects over or too close to the antenna can cause signal blockage.



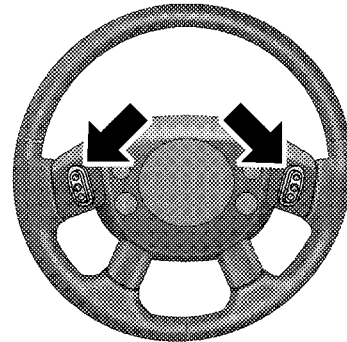
## VIDEO ENTERTAINMENT SYSTEM (VES)<sup>™</sup> — IF EQUIPPED



The optional Video Entertainment System (VES)<sup>™</sup> consists of a DVD player and LCD (liquid crystal display) screen, a battery-powered remote control, and two headsets. The system is located in the headliner behind the front row seat. Refer to your VES<sup>™</sup> User's Manual for detailed operating instructions.

## REMOTE SOUND SYSTEM CONTROLS — IF EQUIPPED

The remote sound system controls are located on the rear surface of the steering wheel. Reach behind the wheel to access the switches.



**Remote Sound System Controls  
(Back View Of Steering Wheel)**

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The right-hand control is a rocker type switch with a button in the center. Pressing the top of the switch will increase the volume, and pressing the bottom of the switch will decrease the volume. The center button of the right-hand control will allow you to change the mode.

The left-hand control is a rocker type switch with a push button in the center. The function of the left-hand control is different, depending on which mode you are in.

The following describes the left-hand control operation in each mode.

### **Radio Operation**

Pressing the top of the left side switch will seek up for the next listenable station and pressing the bottom of the switch will seek down for the next listenable station.

The button located in the center of the left-hand control will tune to the next pre-set station that you have programmed in the radio pre-set push-buttons.

### **CD Player**

Pressing the top of the switch once will go to the next track on the CD. Pressing the bottom of the switch once will go to the beginning of the current track or to the beginning of the previous track if it is within one second after the current track; begins to play.

If you press the switch up or down twice it plays the second track, three times, it will play the third, etc.

The button in the center of the left-hand switch has no function in this mode.

### **CD/DVD MAINTENANCE**

To keep a CD/DVD in good condition, take the following precautions:

1. Handle the disc by its edge; avoid touching the surface.
2. If the disc is stained, clean the surface with a soft cloth, wiping from center to edge.

3. Do not apply paper or tape to the disc; avoid scratching the disc.
4. Do not use solvents such as benzene, thinner, cleaners, or anti-static sprays.
5. Store the disc in its case after playing.
6. Do not expose the disc to direct sunlight.
7. Do not store the disc where temperatures may become too high.

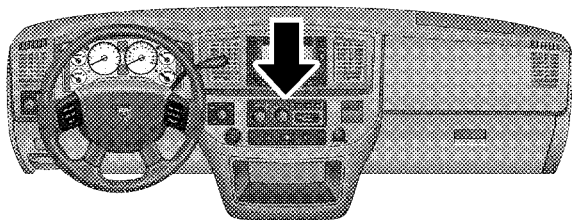
**NOTE:** If you experience difficulty in playing a particular disc, it may be damaged (i.e., scratched, reflective coating removed, a hair, moisture or dew on the disc) oversized, or have protection encoding. Try a known good disc before considering disc player service.

## **RADIO OPERATION AND CELLULAR PHONES**

Under certain conditions, the operation of a cellular phone in your vehicle can cause erratic or noisy performance from your radio. This condition may be lessened or eliminated by relocating the cellular phone antenna. This condition is not harmful to the radio. If your radio performance does not satisfactorily “clear” by the repositioning of the antenna, it is recommended that the radio volume be turned down or off during cellular phone operation.

## CLIMATE CONTROLS

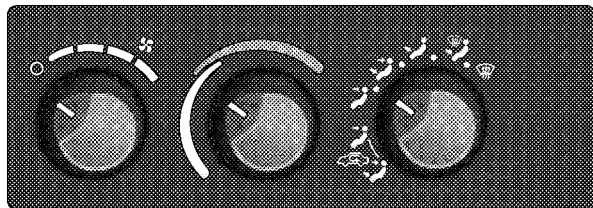
The controls for the heating and ventilation system in this vehicle consist of a series of rotary knobs. These comfort controls can be set to obtain desired interior conditions.



Climate Control Location

8164639b

## Heater Only — If Equipped



81646397

## Manual Heating Controls


The mode control (at the right of the control panel) can be set in any of the following positions:



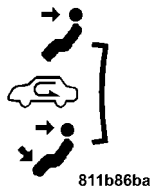
816463c5

**NOTE:** To improve your selection choices, the system allows you to operate at intermediate positions between the major modes. These intermediate positions are identified by the small dots.

### Panel


 Outside air flows through the outlets located in the instrument panel.

### Recirculation Modes (Panel or Bi-Level)




Select the recirculation modes when the outside air contains smoke or odors. This feature allows for recirculation of interior air only. Air flows through the panel outlets in this mode. Air flows through the panel only, or through both the panel and floor vents depending on the selected mode (panel vs bi-level).


### Bi-Level

 Outside air flows through the outlets located in the instrument panel and at the floor.

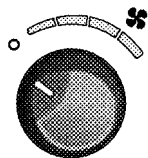
### Mix

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

### Defrost

 Outside air is primarily directed to the windshield through the defroster outlets located at the base of the windshield, and the demister outlets located at the edge of each side of the instrument panel.

### Blower Control

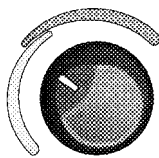


816463cd

The rotary knob on the left of the control panel is the blower control. Turn the knob clockwise to one of the four positions to obtain the blower speed you desire. To turn the blower off, turn the knob to the far left position.

**NOTE:** For vehicles equipped with Remote Start, the climate controls will not function during Remote Start operation if the blower control is left in the “O” (Off) position.

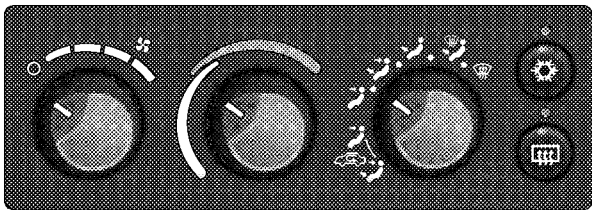
### Temperature Control



816463c9

The rotary knob at the center of the control panel controls the temperature of the interior air. You can choose your degree of comfort by rotating the knob. The coldest temperature setting is to the extreme left (blue region) and the warmest setting is to the extreme right (red region) of the rotation.

## Air Conditioning and Heating — If Equipped



Air Conditioning And Heating

81646393

### Air Conditioning Operation



To turn on the Air Conditioning, set the fan control at any speed and press the snowflake button located at the right of the control panel.

Conditioned air will be directed through the outlets selected by the mode control. A light in the snowflake button shows that the air conditioning is on. Press the button a second time to turn the air conditioning off.

Slight changes in engine speed or power may be noticed when the air conditioning compressor is on. This is a normal occurrence as the compressor will cycle on and off to maintain comfort and increase fuel economy.



816463c5

The mode control (at the right of the control panel) can be set in any of the following positions:

**NOTE:** To improve your selection choices, the system allows you to operate at intermediate positions between the major modes. These intermediate positions are identified by the small dots.

### Recirculation Modes (Panel or Bi-Level)




811b86ba

Select the recirculation modes when the outside air contains smoke, odors, high humidity, or if rapid cooling is desired. This feature allows for recirculation of interior air only. Air flows through the panel only, or through


both the panel and floor vents depending on the selected mode (panel vs bi-level).

**NOTE:** Selecting a Recirculation Mode does not necessarily consume more fuel than normal A/C mode.


### Panel

 Outside air flows through the outlets located in the instrument panel.


### Bi-Level

 Outside air flows through the outlets located in the instrument panel and at the floor.

### Floor

 Outside air flows primarily through the floor outlets located under the instrument panel.

### Mix

 Outside air flows in equal proportions through the floor and defroster outlets, and the air conditioning may be on.



## Defrost



Outside air is primarily directed to the windshield through the defroster outlets located at the base of the windshield, and the demister outlets located at the edge of each side of the instrument panel, and the air conditioning may be on.

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

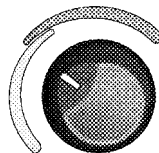
## Blower Control



816463cd

The rotary knob on the left of the control panel is the blower control. Turn the knob clockwise to one of the four positions to obtain the blower speed you desire. To turn the blower off, turn the knob to the far left position.

## Temperature Control



816463c9

The rotary knob at the center of the control panel controls the temperature of the interior air. You can choose your degree of comfort by rotating the knob. The coldest temperature setting is to the extreme left (blue region) and the warmest setting is to the extreme right (red region) of the rotation.

## Circulation

The cab is designed with features to promote outside air circulation. There are grilles in the cab back panel. These are air exhausters that provide the means for regular exchange of cab air.

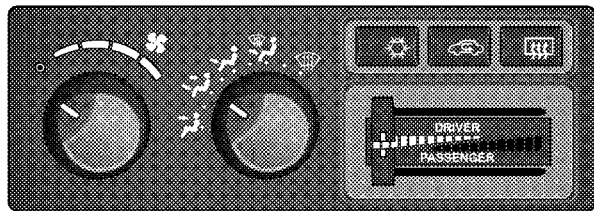
Side window demisters direct airflow specifically to the window glass to help prevent interior fogging of the glass. They are located in the extreme outside upper

edges of the instrument panel. The demisters also provide extra air ducts for circulation. They are in operation whenever the Floor, Mix or Defrost modes are in use. To remove frost from the side windows, it is best to use the full defrost mode.

**NOTE:** When you turn off the engine you may hear a hissing sound from under the hood for a short period of time. This is a normal condition that occurs if the air conditioning system has been on. It is not an indication of a problem with the air conditioning system.

### **Air Conditioning with Dual Zone Temperature Control — If Equipped**

With the Dual Zone Temperature Control System, each front seat occupant can independently control the temperature of air coming from the outlets on their side of the vehicle.



8164638f

#### **Dual Zone Control Head**

### **Air Conditioning and Heating Operation**

To turn on the Air Conditioning, set the fan control at any speed and press the snowflake button located on the control panel. Conditioned air will be directed through the outlets selected by the mode control. A light in the snowflake button shows that the air conditioning is on. Press the button a second time to turn the air conditioning off.

### A/C Pushbutton

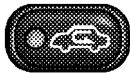


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With the fan control in the ON position, pushing the A/C button turns on the air conditioning compressor. An indicator light on the button shows that the Air Conditioning compressor is on. Conditioned air is now directed through the mode outlets selected.

Pushing the button a second time turns the compressor OFF.

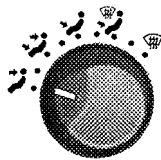
### Recirculation Pushbutton



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Pushing the Recirculation button allows interior air to recirculate continuously in any position except defrost and defrost/floor mode for rapid cool down of the interior. See “Fast Cooldown” later in this section.

### Mode Control



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The mode control allows you to choose from several patterns of air distribution.

**NOTE:** To improve your selection choices, the system allows you to operate at intermediate positions between the major modes. These intermediate positions are identified by the small dots and give an even blend of both modes.

### Panel


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

**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.


**Heat**

 Outside air flows primarily through the floor outlets located under the instrument panel.

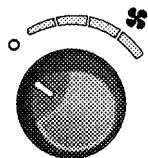
**Mix**

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

**Defrost**

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

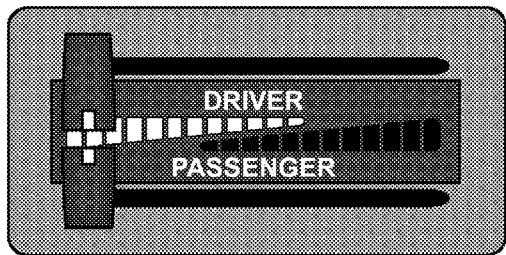
**NOTE:** The air conditioning compressor operates in both Mix and Defrost or a blend of these modes, even if the A/C button has not been pressed. This dehumidifies the air to help dry the windshield.

**Blower Control**

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The rotary knob on the left of the control panel is the blower control. Turn the knob clockwise to one of the four positions to obtain the blower speed you desire. To turn the blower off, turn the knob to the far left position.

## Dual Zone Temperature Control



816463c0

### Dual Zone Temperature Control

Use this control to regulate the temperature of the air inside the passenger compartment. This is accomplished by having separate temperature control slides for both the driver and front passenger. The blue area of the scale

indicates cooler temperatures while the red area indicates warmer temperatures.

### Circulation

The cab is designed with features to promote outside air circulation. There are grilles in the cab back panel. These are air exhausters that provide the means for regular exchange of cab air.

Side window demisters direct airflow specifically to the window glass to help prevent interior fogging of the glass. They are located in the extreme outside upper edges of the instrument panel. The demisters also provide extra air ducts for circulation. They are in operation whenever the Floor, Mix or Defrost modes are in use.

**NOTE:** When you turn off the engine you may hear a hissing sound from under the hood for a short period of time. This is a normal condition that occurs if the air conditioning system has been on. It is not an indication of a problem with the air conditioning system.

## Operating Tips

### Fast Cooldown

For a fast cooldown, turn the blower fan rotary knob to the extreme right position, turn 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 press the recirculation pushbutton, on dual-zone control, or switch the mode from panel/fresh to panel/recirculate on single-zone control. When a comfortable condition has been reached, choose a mode position and adjust the temperature control slide and blower speed as necessary to maintain comfort. For high humidity conditions it may be necessary to remain in the Recirculation mode 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.

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. Higher blower speeds will reduce fogging. 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. Contaminates 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. For proper coolant type, refer to “Recommended Fluids and Genuine Parts” in Section 7.

When using the air conditioner in extremely heavy traffic in hot weather, especially when towing a trailer, additional engine cooling may be required. If this situation is encountered, operate the transmission in a lower gear to increase engine RPM, coolant flow and fan speed. When stopped in heavy traffic, it may be necessary to shift into NEUTRAL and depress the accelerator slightly for fast idle operation to increase coolant flow and fan speed.

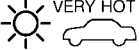


















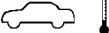




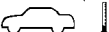










**NOTE:** On models equipped with Diesel engines, the idle speed will automatically increase to 1000 rpm at elevated coolant temperatures to improve engine cooling.

Your air conditioning system is also equipped with an automatic recirculation system. When the system senses a heavy load or high heat conditions, it may use partial Recirculation A/C mode to provide additional comfort.

### 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.

## 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 knob to the high position (full clockwise). Set Mode control knob at or between  and . Set temperature control to full cold and press the  button on. After the hot air has been expelled, close the windows and turn the mode control knob to the  setting (counterclockwise) at either  or , or press the  button (if so 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, set the Mode control at or near  and press the  button on. If cloudy or dark, set the Mode control at or near . No  is necessary.</p>
<p>COOL OR COLD HUMID CONDITIONS</p> 	<p>If sunny, set the Mode control at or between  and , then press the  button on. If cloudy or dark set the Mode control at or near . No  is necessary.</p>
<p>COLD DRY CONDITIONS</p> 	<p>In cloudy or dark weather set the Mode control at or near . If sunny, set the Mode control at or between  and , and for snowy or very cold weather requiring extra heat to the windshield, use .</p>
<p>EXTREME COLD CONDITIONS (DIESEL)</p> 	<p>Using re-circulated air can aid initial warm-up in extreme cold conditions. <b>NOTICE: Running in  /MAX for long periods of time will result in window fogging. When this occurs, use  until windows clear. This will deactivate  /MAX. SINGLE ZONE VEHICLES:</b> Set the mode control at  +  /MAX, close the panel vents and set the temperature control to full hot. Turn blower control knob to low and gradually increase as air and engine temperature increase. <b>DUAL ZONE VEHICLES:</b> Set the mode control at , set both temperature controls to full hot and press the  /MAX button. Turn blower control knob to low and gradually increase as air and engine temperature increase.</p>
<p>WINDOW FOGGING</p>	<p>In most cases turning on the Air-Conditioning (press the  button) will clear the fog, then 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.</p>



# STARTING AND OPERATING

## CONTENTS

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■ Starting Procedures . . . . .	252	■ Four-Wheel Drive Operation — If Equipped . . .	260
□ Normal Starting . . . . .	252	□ Manually Shifted Transfer Case Operating Information/Precautions . . . . .	260
□ Automatic Transmission . . . . .	252	□ Shifting Procedure - Manually Shifted Transfer Case . . . . .	263
□ If Engine Fails To Start . . . . .	252	□ Transfer Case Position Indicator Light . . . . .	264
□ After Starting . . . . .	254	□ Electronically Shifted Transfer Case Operating Information/Precautions (Five Position Switch) — If Equipped . . . . .	264
■ Engine Block Heater — If Equipped . . . . .	254	□ Shifting Procedure — Electronically Shifted Transfer Case . . . . .	269
■ Automatic Transmission . . . . .	254		
□ Automatic Transmission With Overdrive . . . . .	255		

- Electronically Shifted Transfer Case Operating Information/Precautions (Four Position Switch) — If Equipped . . . . . 272
- Shifting Procedure — Electronically Shifted Transfer Case . . . . . 276
- Axle Locker System — Power Wagon Only . . . 279
- Stabilizer/Sway Bar System — Power Wagon Only . . . . . 282
- Safe Off-Road Driving — Power Wagon Only . . . . . 284
  - Off-Road Driving Tips And Vehicle Characteristics . . . . . 284
  - Driving In Snow, Mud And Sand . . . . . 289
  - Crossing Obstacles (Rocks And Other High Points) . . . . . 290
  - Hill Climbing . . . . . 293
  - Driving Through Water . . . . . 295
  - Airing Down For Off-Road Driving . . . . . 298
  - Vehicle Recovery . . . . . 299
  - After Driving Off-Road . . . . . 302
- Limited-Slip Differential – If Equipped . . . . . 304
- Driving On Slippery Surfaces . . . . . 304
- Driving Through Water . . . . . 305
  - Flowing/Rising Water . . . . . 305
  - Shallow Standing Water . . . . . 305
- Driving Off-Road — Ram Truck Only . . . . . 307
- Winch Usage – If Equipped (Power Wagon Only). . . . . 308
  - Things To Know Before Using Your Winch . . . . . 308

- Understanding The Features Of Your Winch . . . . . 310
- Winch Accessories . . . . . 312
- Operating Your Winch . . . . . 313
- Rigging Techniques . . . . . 325
- Power Steering . . . . . 327
  - Power Steering Fluid Check . . . . . 328
- Parking Brake . . . . . 329
- Brake System . . . . . 330
  - 3500 Dual Rear Wheel Models Only . . . . . 331
  - Four-Wheel Anti-Lock Brake System . . . . . 331
- Electronic Brake Control System — If Equipped . . . . . 333
  - Anti-Lock Brake System (ABS) . . . . . 333

- Traction Control System (TCS) . . . . . 334
- Brake Assist System (BAS) . . . . . 335
- Hill Start Assist (HSA) . . . . . 336
- Electronic Roll Mitigation (ERM) . . . . . 339
- Electronic Stability Program (ESP) . . . . . 340
- TSC (Trailer Sway Control) . . . . . 345
- Tire Safety Information . . . . . 346
  - Tire Markings . . . . . 346
  - Tire Identification Number (TIN) . . . . . 349
  - Tire Loading And Tire Pressure . . . . . 350
- Tires — General Information . . . . . 354
  - Tire Pressure . . . . . 354
  - Tire Inflation Pressures . . . . . 355

□ Tire Pressures For High Speed Operation . . .	356	□ Tire Pressure Monitor System (TPMS) Tire Light Load Inflation Switch Description – If Equipped . . . . .	369
□ Radial Ply Tires . . . . .	357	□ Tire Pressure Monitor System Components . .	372
□ Tire Spinning . . . . .	357	□ General Information . . . . .	374
□ Tread Wear Indicators . . . . .	358	■ Fuel Requirements . . . . .	375
□ Life Of Tire . . . . .	359	□ Reformulated Gasoline . . . . .	375
□ Replacement Tires . . . . .	359	□ Gasoline/Oxygenate Blends . . . . .	376
■ Supplemental Tire Pressure Information — If Equipped . . . . .	360	□ E-85 Usage In Non-Flex Fuel Vehicles . . . . .	376
■ Tire Chains . . . . .	361	□ MMT In Gasoline . . . . .	377
■ Snow Tires . . . . .	363	□ Materials Added To Fuel . . . . .	377
■ Tire Rotation Recommendations . . . . .	363	□ Fuel System Cautions . . . . .	378
□ Dual Rear Wheels . . . . .	365	□ Carbon Monoxide Warnings . . . . .	379
■ Tire Pressure Monitor System (TPMS) — If Equipped . . . . .	366		

■ Adding Fuel . . . . .	379	□ Towing Requirements . . . . .	390
□ Loose Fuel Filler Cap (Gas Cap) Message . . . . .	381	□ Towing Tips . . . . .	395
■ Vehicle Loading . . . . .	381	■ Snowplow . . . . .	396
□ Certification Label . . . . .	381	■ Recreational Towing (Behind Motorhome, Etc.) . . . . .	397
■ Trailer Towing . . . . .	383	□ Recreational Towing – Two-Wheel Drive Models . . . . .	397
□ Common Towing Definitions . . . . .	384	□ Recreational Towing – Four-Wheel Drive Models . . . . .	397
□ Trailer Hitch Classification . . . . .	388	■ Equipment Identification Plate . . . . .	403
□ Trailer Towing Weights (Maximum Trailer Weight Ratings) . . . . .	389		
□ Trailer And Tongue Weight . . . . .	389		

## STARTING PROCEDURES

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

The starter should not be operated for more than 15-second intervals. Waiting a few seconds between such intervals will protect the starter from overheating.

### WARNING!

**Do not leave children or animals inside parked vehicles in hot weather. Interior heat buildup 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. Turn the key to the START position and release when the engine starts. If the engine fails to start within 10 seconds, turn the key to the OFF position, wait five seconds, then repeat the starting procedure.

### Automatic Transmission

Start the engine with the shift lever in the NEUTRAL or PARK position. Apply the brake before shifting to any driving range.

**NOTE: This vehicle is equipped with a transmission shift interlocking system. The brake pedal must be depressed to shift out of PARK.**

### Tip Start Feature

**Do not** press the accelerator. Turn the ignition key briefly to START position, and release it. The starter motor will continue to run, but will automatically disengage when the engine is running.

### 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.

**CAUTION!**

To prevent damage to the starter, do not crank the engine for more than 15 seconds at a time. Wait 10 to 15 seconds before trying again.

**WARNING!**

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

*(Continued)*

**WARNING! (Continued)**

- If the vehicle has a discharged battery, booster cables may be used to obtain a start from a booster battery or the battery in another vehicle. This type of start can be dangerous if done improperly. Refer to “Jump Starting” in Section 6.

If the engine has been flooded, it may start to run, but not have enough power to continue running when the key is released. If this occurs, continue cranking with the accelerator pedal pushed all the way to the floor. Release the accelerator pedal and the key once the engine is running smoothly.

If the engine shows no sign of starting after two 15-second periods of cranking with the accelerator pedal held to the floor, the “Normal Starting” procedure should be repeated.

### After Starting

The idle speed is automatically controlled and will decrease as the engine warms up.

### ENGINE BLOCK HEATER — IF EQUIPPED

The engine block heater warms the engine, and permits quicker starts in cold weather. Connect the cord to a standard 110-115 Volt AC electrical outlet with a grounded, three-wire extension cord.

The engine block heater cord is routed under the hood on the driver side of the vehicle. It has a removable cap that is located on the driver's side of the Integrated Power Module.

#### WARNING!

Remember to disconnect the cord before driving. Damage to the 110-115 Volt electrical cord could cause electrocution.

### AUTOMATIC TRANSMISSION

#### CAUTION!

Damage to the transmission may occur if the following precautions are not observed:

- Shift into PARK only after the vehicle has come to a complete stop.
- Shift into or out of REVERSE only after the vehicle has come to a complete stop and the engine is at idle speed.
- Do not shift from REVERSE, PARK, or NEUTRAL into any forward gear when the engine is above idle speed.
- Before shifting into any gear, make sure your foot is firmly on the brake pedal.



**WARNING!**

It is dangerous to move 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.

**Automatic Transmission with Overdrive**

The gear shift lever display located in the instrument panel cluster indicates the transmission gear range (the selector is illuminated for night driving). The shift lever is mounted on the right side of the steering column. You must depress the brake pedal to pull the shift lever out of PARK position (Brake Interlock System). 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.

**Gear Ranges**

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

**PARK**

This gear position supplements the parking brake by locking the transmission. The engine can be started in this range. Never use PARK while the vehicle is in motion. Apply the parking brake when leaving the vehicle in this range. Always apply parking brake first, then place the shift lever into the PARK position. On four-wheel drive vehicles be sure that the transfer case is in a drive position!

**WARNING!**

- Never use the PARK position as a substitute for the parking brake. Always apply parking brake fully when parked to guard against vehicle movement and possible injury or damage.
- 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 it toward you after you have set it in PARK. Make sure it is in PARK before leaving the vehicle.

*(Continued)*

**WARNING! (Continued)**

- It is dangerous to move 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 into NEUTRAL when the vehicle is standing for prolonged periods with the engine running. The engine may be started in this range. Set the parking brake if you must leave the vehicle.

**DRIVE**

This position provides all forward gears, including 3rd gear direct and 4th or 5th gear overdrive (see Overdrive Operation). Use this range for most city and highway driving.

**SECOND**

Use this position for driving slowly in heavy city traffic or 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.

**FIRST**

Use this position for driving up very steep hills and for engine braking at low speeds 20 mph (32 km/h) or less when going downhill. To prevent excessive engine speed, do not exceed 25 mph (40 km/h) in this range.

**NOTE:** Use caution when operating a heavily loaded vehicle in SECOND or FIRST gear selections in high ambients as torque converter slip can impose significant additional heat load on the cooling system.

**Overdrive Operation**

The overdrive automatic transmission contains an electronically controlled fourth and fifth (if equipped) speed (Overdrive). The transmission will automatically shift from DRIVE to Overdrive if the following conditions are present:

- the shift lever is in DRIVE;
- the engine coolant has reached normal operating temperature;
- vehicle speed is above approximately 30 mph (48 km/h);
- the “TOW HAUL O/D OFF” switch has not been activated;

- transmission has reached normal operating temperature.

**NOTE:**

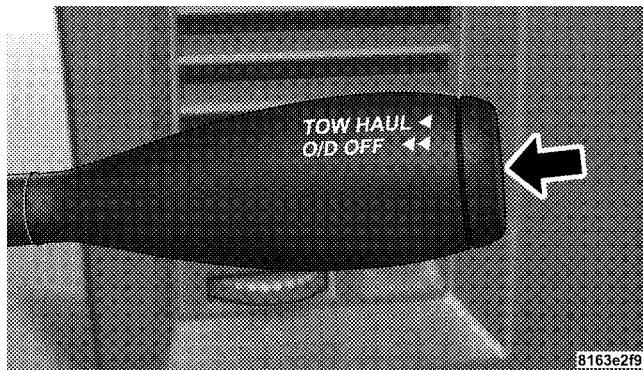
- If the vehicle is started in extremely cold temperatures, the transmission may not shift into Overdrive and will automatically select the most desirable gear for operation at this temperature. Normal operation will resume when the transmission fluid temperature has risen to a suitable level. Refer to the “Note” under “Torque Converter Clutch” in this section.
- 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 “Transmission Temperature Warning Light” may illuminate and the transmission may downshift out of

Overdrive until the transmission cools down. After cool down, the transmission will resume normal operation.

The transmission will downshift from Overdrive to DRIVE if the accelerator pedal is fully depressed at vehicle speeds above approximately 35 mph (56 km/h).

**When To Use “TOW HAUL” and “O/D OFF” Modes**

When driving in hilly areas, towing a trailer, carrying a heavy load, etc., and frequent transmission shifting occurs, press the “TOW HAUL O/D OFF” button once to select TOW HAUL.



**Tow Haul O/D Off Switch**

This will improve performance and reduce the potential for transmission overheating or failure due to excessive shifting. When operating in "TOW HAUL" mode, 5th gear (if equipped) is disabled and 2-3 and 3-4 shift patterns are modified. Shifts into Overdrive (4th gear) are allowed during steady cruise (for improved fuel

economy) and automatic closed-throttle downshifts to 3rd gear are performed (for improved braking) when driving conditions warrant. Pressing the "TOW HAUL O/D OFF" button a second time to select O/D OFF will disable 4th and 5th gear completely, which should eliminate any excessive transmission shifting.

The "TOW HAUL" or "O/D OFF" light will illuminate in the instrument cluster to indicate when the switch has been activated. Pressing the switch a third time restores normal operation. If the "TOW HAUL" or "O/D OFF" modes are desired, the button must be pressed each time the engine is started.

### **Torque Converter Clutch**

A feature, designed to improve fuel economy, has been included in the automatic transmission on your vehicle. A clutch within the torque converter engages automatically at calibrated speeds. This may result in a slightly different feeling or response during normal operation in

the upper gears. When the vehicle speed drops or during acceleration when the transmission downshifts to second gear, the clutch automatically disengages.

**NOTE:**

- The torque converter clutch will not engage until the transmission fluid and engine coolant are warm [usually after 1-3 miles (1.6 - 4.8 km) of driving]. Because the engine speed is higher when the torque converter clutch is not engaged, it may seem as if the transmission is not shifting into Overdrive when cold. This is normal. Pressing the "TOW HAUL O/D OFF" button, when the transmission is sufficiently warm, will demonstrate that the transmission is able to shift into and out of overdrive.
- If the vehicle has not been driven in several days, the first few seconds of operation after shifting the transmission into gear may seem sluggish. This is due to the fluid partially draining from the torque converter into

the transmission. This condition is normal and will not cause damage to the transmission. The torque converter will refill within five seconds of shifting from PARK into any other gear position.

**FOUR-WHEEL DRIVE OPERATION — IF EQUIPPED**

Four-wheel drive trucks are equipped with either a manually shifted transfer case or an electronically shifted transfer case. Refer to the operating instructions for your transfer case, located in this section.

**Manually Shifted Transfer Case Operating Information/Precautions**

The transfer case provides four mode positions.

- Two-wheel drive high range (2H)
- Four-wheel drive high range (4H)
- Neutral (N)
- Four-wheel drive low range (4L)

This transfer case is intended to be driven in the 2H position for normal street and highway conditions such as dry, hard surfaced roads.

When additional traction is required, the 4H and 4L positions can be used to lock the front and rear drive-shafts together and force the front and rear wheels to rotate at the same speed. This is accomplished by simply moving the shift lever to the desired positions. The 4H and 4L positions are intended for loose, slippery road surfaces only. Driving in the 4H and 4L positions on dry, hard surfaced roads may cause increased tire wear and damage to the driveline components.

The “Transfer Case Position Indicator Light” in the instrument cluster will alert the driver that the vehicle is in four-wheel drive and that the front and rear driveshafts are locked together. This light will illuminate when the transfer case is shifted into either the 4H or 4L position. There is no light for the 2H or NEUTRAL positions.

When operating your vehicle in 4L, the engine speed is approximately three times that of the 2H or 4H positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

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

**NOTE:** Do not attempt to make a shift while only the front or rear wheels are spinning. The transfer case is not equipped with a synchronizer and therefore the front and rear driveshaft speeds must be equal for the shift to take place. Shifting while only the front or rear wheels are spinning 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.

**NOTE:** Delayed shifts out of four-wheel drive may be experienced due to uneven tire wear, low or uneven tire pressures, excessive vehicle loading, or cold temperatures.

### **WARNING!**

**You or others could be injured if you leave the vehicle unattended with the transfer case in the NEUTRAL position without first fully engaging the parking brake. The transfer case NEUTRAL position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move regardless of the transmission position. The parking brake should always be applied when the driver is not in the vehicle.**

For additional information on the appropriate use of each transfer case mode position see the information below:

### **2H**

Rear Wheel Drive High Range - This range is for normal street and highway driving on dry hard surfaced roads.

### **4H**

Four-Wheel Drive High Range - This range locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction for loose, slippery road surfaces only.

### **N**

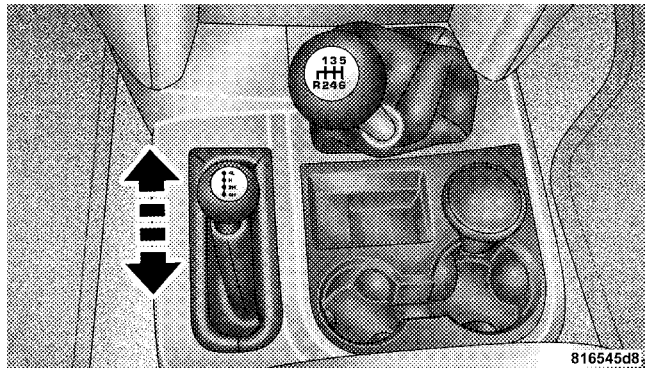
Neutral - This range disengages the front and rear driveshafts from the powertrain. To be used for flat towing behind another vehicle. Refer to "Recreational Towing" in this section.

### **4L**

Four-Wheel Drive Low Range - This range locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction and maximum pulling power for loose, slippery road surfaces only. Do not exceed 25 mph (40 km/h).



## Shifting Procedure - Manually Shifted Transfer Case



Manual Transfer Case Shifter

### 2H ⇔ 4H

Shifting between 2H and 4H can be made with the vehicle stopped or in motion. If the vehicle is in motion, shifts can be made up to 55 mph (88 km/h). With the

vehicle in motion, the transfer case will engage/disengage faster if you momentarily release the accelerator pedal after completing the shift. Apply a constant force when shifting the transfer case lever.

### 2H or 4H ⇔ 4L

With the vehicle rolling at 2 to 3 mph (3 to 5 km/h), shift the transmission into NEUTRAL. While the vehicle is coasting at 2 to 3 mph (3 to 5 km/h), shift the transfer case lever firmly to the desired position. Do not pause in transfer case NEUTRAL.

### NOTE:

- Pausing in transfer case NEUTRAL in vehicles equipped with an automatic transmission may require shutting the engine OFF to avoid gear clash while completing the shift. If difficulty occurs, shift the transmission into NEUTRAL, hold foot on brake, and turn the engine OFF. Make shift to the desired mode.

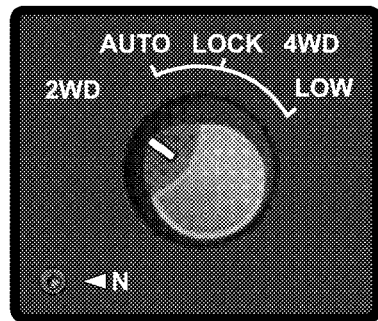
- Shifting into or out of 4L is possible with the vehicle completely stopped, however difficulty may occur due to the mating clutch teeth not being properly aligned. Several attempts may be required for clutch teeth alignment and shift completion to occur. The preferred method is with the vehicle rolling 2 to 3 mph (3 to 5 km/h). Avoid attempting to engage or disengage 4L with the vehicle moving faster than 2 to 3 mph (3 to 5 km/h).
- Do not attempt to shift into or from 4L while the transmission is in gear.

### Transfer Case Position Indicator Light

The “Transfer Case Position Indicator Light” in the instrument cluster is used to alert the driver that the front axle is fully engaged and all four wheels are driving.

### Electronically Shifted Transfer Case Operating Information/Precautions (Five Position Switch) — If Equipped

This is an electronically shifted transfer case and is operated by the transfer case switch, which is located on the instrument panel.



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Transfer Case Switch (Five Position)

This electronically shifted transfer case provides five mode positions.

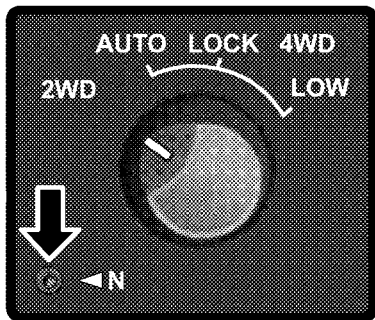
- Two-wheel drive high range (2WD)
- Four-wheel drive automatic range (4WD AUTO)
- Four-wheel drive lock range (4WD LOCK)
- Four-wheel drive low range (4WD LOW)
- Neutral (N)

This electronically shifted transfer case is designed to be driven in the two-wheel drive position (2WD) or four-wheel drive position (4WD AUTO) for normal street and highway conditions (dry hard surfaced roads). Driving the vehicle in 2WD will have greater fuel economy benefits, as the front axle is not engaged in 2WD.

For variable driving conditions, the 4WD AUTO mode can be used. In this mode, the front axle is engaged, but the vehicle's power is sent to the rear wheels. Four-wheel drive will be automatically engaged when the vehicle senses a loss of traction. Because the front axle is engaged, this mode will result in lower fuel economy than the 2WD mode.

When additional traction is required, the 4WD LOCK and 4WD LOW positions can be used to lock the front and rear driveshafts together and force the front and rear wheels to rotate at the same speed. This is accomplished by rotating the 4WD Control Switch to the desired position. Refer to "Shifting Procedure" for specific shifting instructions. The 4WD LOCK and 4WD LOW positions are designed for loose, slippery road surfaces only.

Driving in the 4WD LOCK and 4WD LOW positions on dry hard surfaced roads may cause increased tire wear and damage to the driveline components.



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#### NEUTRAL Button

**NOTE:** The transfer case NEUTRAL position is selected by depressing the recessed button located on the lower left hand corner of the 4WD Control Switch. The transfer

case NEUTRAL position is to be used for recreational towing only. Refer to "Recreational Towing" in this section for specific procedures on shifting into and out of NEUTRAL.

#### Transfer Case Position Indicator Lights — Electronically Shifted Transfer Case Only

The "Transfer Case Position Indicator Lights" are located on the instrument cluster and indicate the current and desired transfer case selection. When you select a different transfer case position, the "Transfer Case Position Indicator Lights" will do the following:

#### If all shift conditions are met:

1. The current "Transfer Case Position Indicator Light" will turn OFF.
2. The selected "Transfer Case Position Indicator Light" will flash until the transfer case completes the shift.

3. When the shift is completed, the “Transfer Case Position Indicator Light” for the selected position will stop flashing and remain ON.

**If one or more shift conditions are not met:**

1. The “Transfer Case Position Indicator Light” for the current position will remain ON.
2. The newly selected “Transfer Case Position Indicator Light” will continue to flash.
3. The transfer case **will not** shift.

**NOTE:** Before retrying a selection, make sure that all of the necessary requirements for selecting a new transfer case position have been met. To retry the selection, turn the control knob back to the current position, wait five seconds, and retry selection. To find the shift requirements, refer to the “Shifting Procedure” for your transfer case, located in this section of the Owner’s Manual.

The “Service 4WD Warning Light” monitors the electric shift four-wheel drive system. If this light remains on after engine start up or illuminates during driving, it means that the four-wheel drive system is not functioning properly and that service is required.

**WARNING!**

**Always engage the parking brake when powering down the vehicle if the “Service 4WD Warning Light” is illuminated. Not engaging the parking brake may allow the vehicle to roll which may cause personal injury.**

**NOTE:** Do not attempt to make a shift while only the front or rear wheels are spinning. This could cause damage to driveline components.

When operating your vehicle in 4WD LOW, the engine speed is approximately three times that of the 2WD, 4WD AUTO or 4WD LOCK positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

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.

### **WARNING!**

**You or others could be injured if you leave the vehicle unattended with the transfer case in the NEUTRAL position without first fully engaging the parking brake. The transfer case NEUTRAL position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move regardless of the transmission position. The parking brake should always be applied when the driver is not in the vehicle.**

For additional information on the appropriate use of each transfer case mode position, see the information below:

#### **2WD**

Rear Wheel Drive High Range - This range is for normal street and highway driving on dry hard surfaced roads.

### **4WD AUTO**

Four-Wheel Drive Automatic Range - This range automatically engages when the vehicle senses a loss of traction. Additional traction for varying road conditions.

### **4WD LOCK**

Four-Wheel Drive Lock Range - This range locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction for loose, slippery road surfaces only.

### **4WD LOW**

Four-Wheel Drive Low Range - Locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction and maximum pulling power for loose, slippery road surfaces only. Do not exceed 25 mph (40 km/h).

### **N**

Neutral - This range disengages the front and rear driveshafts from the powertrain. To be used for flat towing behind another vehicle. Refer to “Recreational Towing” in this section.

## **Shifting Procedure — Electronically Shifted Transfer Case**

### **NOTE:**

- If any of the requirements to select a new transfer case position have not been met, the transfer case will not shift. The “Transfer Case Position Indicator Light” for the previous position will remain ON and the newly selected “Transfer Case Position Indicator Light” will continue to flash until all the requirements for the selected position have been met. To retry a shift: return the control knob back to the original position, make certain all shift requirements have been met, wait five seconds and try the shift again.

- If all the requirements to select a new transfer case position have been met, the current “Transfer Case Position Indicator Light” will turn OFF, the selected “Transfer Case Position Indicator Light” will flash until the transfer case completes the shift. When the shift is completed, “Transfer Case Position Indicator Light” for the selected position will stop flashing and remain ON.

### **2WD ⇔ 4WD AUTO or 4WD LOCK**

Rotate the transfer case switch to the desired position. Shifts between 2WD and 4WD AUTO and 4WD LOCK can be done with the vehicle stopped or in motion. With the vehicle in motion, the transfer case will engage/disengage faster if you momentarily release the accelerator pedal after turning the switch. If the vehicle is stopped, the ignition key must be in the ON position, with the engine either RUNNING or OFF. This shift cannot be completed if the key is in the accessory (ACC) position.

### **2WD or 4WD AUTO or 4WD LOCK ⇔ 4WD LOW**

**NOTE:** When shifting into or out of 4WD LOW some gear noise may be heard. This noise is normal and is not detrimental to the vehicle or occupants.

Shifting can be performed with the vehicle rolling 2 to 3 mph (3 to 5 km/h) or completely stopped. USE EITHER OF THE FOLLOWING PROCEDURES:

#### **Preferred Procedure**

1. With the engine running, slow the vehicle to 2 to 3 mph (3 to 5 km/h).
2. Shift the transmission into NEUTRAL.
3. While still rolling, rotate the transfer case switch to the desired position.
4. After the desired “Transfer Case Position Indicator Light” is ON (not flashing), shift the transmission back into gear.



### Alternate Procedure

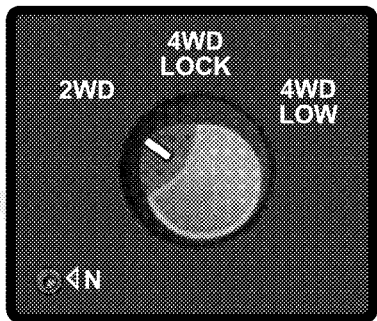
1. Bring the vehicle to complete stop.
2. With the key ON and the engine either off or running, shift the transmission into NEUTRAL.
3. Rotate the transfer case control switch to the desired position.
4. After the desired "Transfer Case Position Indicator Light" is ON (not flashing), shift the transmission back into gear.

### NOTE:

- If steps 1 or 2 of either the Preferred or Alternate Procedure are not satisfied, prior to attempting the shift, or if they no longer are being met while the shift attempt is in process, then the desired "Transfer Case Position Indicator Light" will flash continuously while the original "Transfer Case Position Indicator Light" is ON, until all requirements have been met.
- The ignition key must be ON for a shift to take place and for the "Transfer Case Position Indicator Lights" to be operable. If the key is not ON, then the shift will not take place and no "Transfer Case Position Indicator Lights" will be on or flashing.
- If you are leaving your vehicle stored for longer than 21 days, refer to the section on "Vehicle Storage."

### Electronically Shifted Transfer Case Operating Information/Precautions (Four Position Switch) — If Equipped

This is an electronically shifted transfer case and is operated by the transfer case switch, which is located on the instrument panel.



Transfer Case Switch (Four Position)

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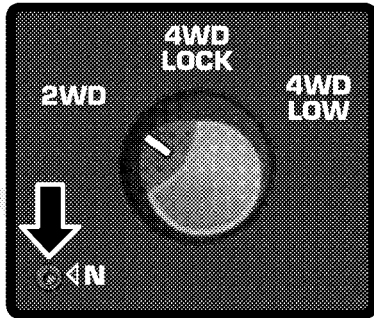
This electronically shifted transfer case provides four mode positions.

- Two-wheel drive high range (2WD)
- Four-wheel drive lock range (4WD LOCK)
- Four-wheel drive low range (4WD LOW)
- Neutral (N)

This electronically shifted transfer case is designed to be driven in the two-wheel drive position (2WD) for normal street and highway conditions on dry, hard surfaced roads.

When additional traction is required, the transfer case 4WD LOCK and 4WD LOW positions can be used to lock the front and rear driveshafts together and force the front and rear wheels to rotate at the same speed. This is accomplished by rotating the transfer case switch to the desired position. Refer to “Shifting Procedure” for specific shifting instructions. The 4WD LOCK and 4WD

LOW positions are designed for loose, slippery road surfaces only. Driving in the 4WD LOCK and 4WD LOW positions on dry hard surfaced roads may cause increased tire wear and damage to the driveline components.



NEUTRAL Button

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**NOTE:** The transfer case NEUTRAL position is selected by depressing the recessed button located on the lower left hand corner of the transfer case switch. The transfer case NEUTRAL position is to be used for recreational towing only. Refer to “Recreational Towing” in this section.

#### Transfer Case Position Indicator Lights — Electronically Shifted Transfer Case Only

The “Transfer Case Position Indicator Lights” are located in the instrument cluster and indicate the current and desired transfer case selection. When you select a different transfer case position, the “Transfer Case Position Indicator Lights” will do the following:

**If all shift conditions are met:**

1. The current “Transfer Case Position Indicator Light” will turn OFF.

2. The selected "Transfer Case Position Indicator Light" will flash until the transfer case completes the shift.
3. When the shift is completed, the "Transfer Case Position Indicator Light" for the selected position will stop flashing and remain ON.

**If one or more shift conditions are not met:**

1. The "Transfer Case Position Indicator Light" for the current position will remain ON.
2. The newly selected "Transfer Case Position Indicator Light" will continue to flash.
3. The transfer case **will not** shift.

**NOTE:** Before retrying a selection, make certain that all the necessary requirements for selecting a new transfer case position have been met. To retry the selection, turn the transfer case switch back to the current position, wait

five seconds, and retry selection. To find the shift requirements, refer to the "Shifting Procedure" for your transfer case, located in this section of the Owner's Manual.

The "Service 4WD Warning Light" monitors the electric shift four-wheel drive system. If this light remains on after engine start up or illuminates during driving, it means that the four-wheel drive system is not functioning properly and that service is required.

**WARNING!**

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

**NOTE:** Do not attempt to make a shift while only the front or rear wheels are spinning, as this can cause damage to driveline components.

When operating your vehicle in 4WD LOW, the engine speed is approximately three times that of the 2WD or 4WD LOCK positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

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.

### **WARNING!**

**You or others could be injured if you leave the vehicle unattended with the transfer case in the NEUTRAL position without first fully engaging the parking brake. The transfer case NEUTRAL position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move regardless of the transmission position. The parking brake should always be applied when the driver is not in the vehicle.**

For additional information on the appropriate use of each transfer case mode position see the information below:

### **2WD**

Rear Wheel Drive High Range - This range is for normal street and highway driving on dry hard surfaced roads.

### **4WD LOCK**

Four-Wheel Drive Lock Range - This range locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction for loose, slippery road surfaces only.

### **4WD LOW**

Four-Wheel Drive Low Range - Locks the front and rear driveshafts together forcing the front and rear wheels to rotate at the same speed. Additional traction and maximum pulling power for loose, slippery road surfaces only. Do not exceed 25 mph (40 km/h).

### **N**

Neutral - This range disengages the front and rear driveshafts from the powertrain. To be used for flat towing behind another vehicle. Refer to “Recreational Towing” in this section.

## **Shifting Procedure — Electronically Shifted Transfer Case**

### **NOTE:**

- If any of the requirements to select a new transfer case position have not been met, the transfer case will not shift. The “Transfer Case Position Indicator Light” for the previous position will remain ON and the newly selected “Transfer Case Position Indicator Light” will continue to flash until all the requirements for the selected position have been met. To retry a shift: return the control knob back to the original position, make certain all shift requirements have been met, wait five seconds and try the shift again.

- If all the requirements to select a new transfer case position have been met, the current “Transfer Case Position Indicator Light” will turn OFF, the selected “Transfer Case Position Indicator Light” will flash until the transfer case completes the shift. When the shift is completed, the “Transfer Case Position Indicator Light” for the selected position will stop flashing and remain ON.

### **2WD⇔ 4WD LOCK**

Rotate the transfer case switch to the desired position. Shifts between 2WD and 4WD LOCK can be done with the vehicle stopped or in motion. With the vehicle in motion, the transfer case will engage/disengage faster if you momentarily release the accelerator pedal after turning the switch. If the vehicle is stopped, the ignition key must be in the ON position with the engine either running or off. This shift cannot be completed if the key is in the ACC position.

**NOTE:** The transfer case will not allow shifts between 2WD and 4WD LOCK if the front and/or rear wheels are spinning (no traction). In this situation, the selected “Transfer Case Position Indicator Light” will flash and the original “Transfer Case Position Indicator Light” will remain ON. At this time, reduce speed and stop spinning the wheels to complete the shift.

### **2WD or 4WD LOCK⇔ 4WD LOW**

**NOTE:** When shifting into or out of 4WD LOW some gear noise may be heard. This noise is normal and is not detrimental to the vehicle or occupants.

Shifting can be performed with the vehicle rolling 2 to 3 mph (3 to 5 km/h) or completely stopped. USE EITHER OF THE FOLLOWING PROCEDURES:

#### **Preferred Procedure**

1. With engine running, slow the vehicle to 2 to 3 mph (3 to 5 km/h).

2. Shift the transmission into NEUTRAL.
3. While still rolling, rotate the transfer case switch to the desired position.
4. After the desired "Transfer Case Position Indicator Light" is ON (not flashing), shift the transmission back into gear.

#### **Alternate Procedure**

1. Bring the vehicle to complete stop.
2. With the key ON and the engine either OFF or running, shift the transmission into NEUTRAL.
3. Rotate the transfer case switch into the desired position.
4. After the desired "Transfer Case Position Indicator Light" is ON (not flashing), shift the transmission back into gear.

#### **NOTE:**

- If steps 1 or 2 of either the Preferred or Alternate Procedure are not satisfied prior to attempting the shift, the desired "Transfer Case Position Indicator Light" will flash continuously while the original "Transfer Case Position Indicator Light" is ON, until all requirements have been met.
- The ignition key must be ON for a shift to take place and for the "Transfer Case Position Indicator Lights" to be operable. If the key is not ON then the shift will not take place and no "Transfer Case Position Indicator Lights" will be on or flashing.
- If you are leaving your vehicle stored for longer than 21 days, refer to the section on "Vehicle Storage."



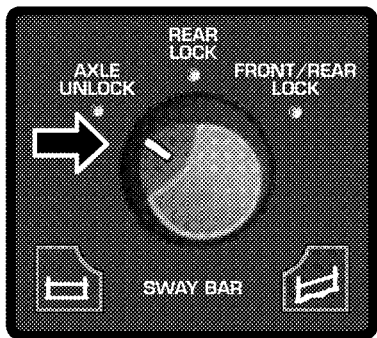
## **AXLE LOCKER SYSTEM — POWER WAGON ONLY**

This vehicle is equipped with electronically locking front and rear differentials. These differentials, when engaged, mechanically lock together the axle shafts forcing the wheels to spin at an equal rate. This allows the vehicle to maintain its momentum and prevents it from becoming stuck. The locking front and rear differentials should only be engaged during low-speed, extreme off-road situations where one wheel is likely to not be in contact with the ground. It is not recommended to drive the vehicle with the differentials locked on pavement due to the reduced ability to turn and speed limitations.

### **CAUTION!**

- **Do not lock the front or rear axle on hard surfaced roads. The ability to steer the vehicle is reduced and damage to the drivetrain may occur when the axles are locked on hard surfaced roads.**
- **Do not try to lock the rear axle if the vehicle is stuck and the tires are spinning. You can damage drivetrain components. Lock the rear axle before attempting situations or navigating terrain, which could possibly cause the vehicle to become stuck.**

The locking axles are controlled by the axle locker switch located on the center console.



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### Locking Axle Switch

The switch has three positions, AXLE UNLOCK, REAR LOCK, and FRONT/REAR LOCK. Under normal driving conditions, the switch should be left in the AXLE UNLOCK position. In the AXLE UNLOCK position, the

front and rear axles are unlocked. In the REAR LOCK position, the rear axle is locked. In the FRONT/REAR LOCK position, the front and rear axles are locked.

**NOTE:** Even when the axles are in the AXLE UNLOCK position, the limited slip differential in the rear axle still provides torque biasing capability for moderate low traction environments.

During the command to lock the axle, the indicator light will flash until the axle is locked. After the lock command has been successfully executed, the light will remain on solid.

To lock the rear axle, place the vehicle in 4LO. Refer to “Four Wheel Drive Operation” in this section of the manual. Move the axle locker switch position to REAR LOCK while traveling less than 3 mph (5 km/h). The RR indicator light will remain on when the rear axle is locked.

**NOTE:** Left to right wheel speed difference may be necessary to allow the axle to fully lock. If the indicator light is flashing after placing the switch in the REAR LOCK or FRONT/REAR LOCK position, drive the vehicle in a turn or on loose gravel to expedite the locking action.

### **WARNING!**

**Do not use the locked axle position for normal driving. A locked front axle is intended for off-road driving only. Locking the front axle during on-road driving will reduce the steering ability. This could cause an accident and you may be seriously injured.**

To lock the front axle; move the axle locker switch to FRONT/REAR LOCK while traveling less than 3 mph (5 km/h). The indicator light will be solid when the front axle is locked.

**NOTE:** The rear axle must be locked before the front axle will lock.

To unlock the front axle; move the axle locker switch to REAR LOCK. The FRONT/REAR LOCK indicator light will go out when the axle is unlocked.

**NOTE:** The axle lockers could be torque locked due to side to side loads on the axle. Driving slowly while turning the steering wheel from a left hand turn to a right hand turn or driving in REVERSE for a short distance may be required to release the torque lock and unlock the axles.

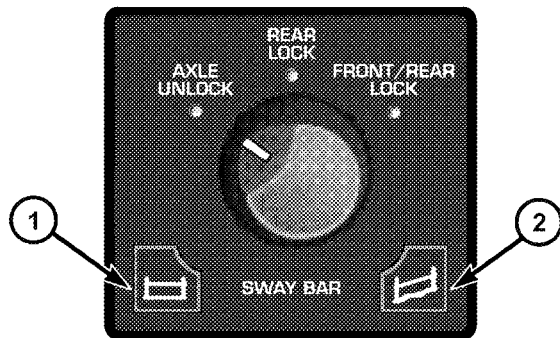
To unlock the rear axle; move the axle locker switch to AXLE UNLOCK. The REAR LOCK indicator light will go out when the rear axle is unlocked.

## STABILIZER/SWAY BAR SYSTEM — POWER WAGON ONLY

Your vehicle is equipped with an electronic disconnecting stabilizer/sway bar. This system allows greater front suspension travel in off-road situations.

Due to the use of taller springs, this vehicle has an increased ride height of approximately 1.9 in (48.3 mm) in the front and 1.5 in (38.1 mm) in the rear. A major advantage to increasing ride height is the positive effect it has on approach/departure and break over angles.

This system is controlled by the electronic control sway bar switch located on the instrument panel.



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- 1 — On Road
- 2 — Off Road

The switch has two positions; On-Road and Off-Road. The system is normally in the On-Road mode, indicated by a solid green light. The stabilizer/sway bar should remain in the On-Road mode during normal driving conditions.

**WARNING!**

Do not disconnect the stabilizer bar and drive on hard surfaced roads or at speeds above 18 mph (29 km/h), you may lose control of the vehicle, which could result in serious injury. The front stabilizer bar enhances vehicle stability and is necessary for maintaining control of the vehicle. The system monitors vehicle speed and will attempt to reconnect the stabilizer bar at speeds over 18 mph (29 km/h). This is indicated by a flashing off road light and solid on road light. Once vehicle speed is reduced below 14 mph (22 km/h), the system will attempt to return to the Off-Road mode.

To disconnect the stabilizer/sway bar, shift to either 4HI or 4LO as shown in "Four Wheel Drive Operation" and press the top of the stabilizer/sway bar button to obtain

the Off-Road position. The amber indicator light will flash until the stabilizer/sway bar has been fully disconnected.

**NOTE:** The stabilizer/sway bar may be torque locked due to left and right suspension height differences. This condition is due to driving surface differences or vehicle loading. In order for the stabilizer/sway bar to disconnect/reconnect, the right and left halves of the bar must be aligned. This alignment may require that the vehicle be driven onto level ground or rocked from side to side.

To return to the On-Road mode; press the bottom of the stabilizer/sway bar button.

**WARNING!**

If the stabilizer/sway bar will not return to On-Road mode, vehicle stability is greatly reduced. Do not attempt to drive the vehicle over 18 mph (29 km/h). Driving faster than 18 mph (29 km/h) may cause loss of control of the vehicle, which could result in serious injury. Contact your local service center for assistance.

**SAFE OFF-ROAD DRIVING — POWER WAGON ONLY****Off-Road Driving Tips and Vehicle Characteristics**

Your vehicle has excellent on and off-road capabilities. These off-road capabilities will allow you to explore those wilderness trails where few travel, providing a source of exciting and satisfying recreation. Before you

venture out, you should contact your local governmental agency to determine the designated off-road vehicle (ORV) trails or recreation areas. You should always tread lightly and only use established roads, trails or ORV recreational areas. The National Forest Service, Bureau of Land Management or local Department of Natural Resources are a wealth of information and usually have maps with marked trails.

**Skid Plates And Underbody Protection**

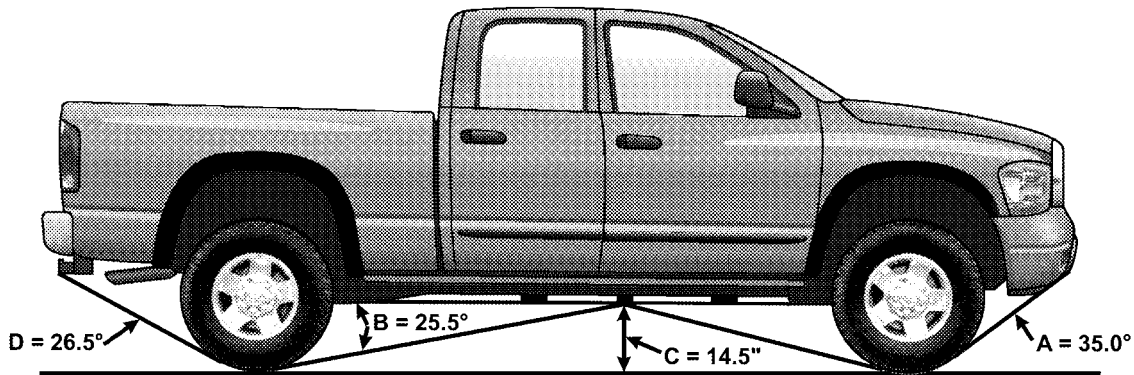
Steel skid plates protect the major driveline components of the truck including the fuel tank, transfer case and steering damper. In addition, this vehicle is equipped with boxed cross members and fore/aft rails. This additional protection allows the vehicle to be utilized in severe off-road situations that would be considered impassable by a normal truck.

### **Ramp Travel Index (RTI)**

The ramp travel index is the distance, in inches, that you can drive your vehicle with one wheel on a 20-degree ramp without lifting any other wheel off the ground. This distance up the ramp divided by the wheelbase of the vehicle and multiplied by 1,000 is the RTI. This vehicle has an RTI of 655, which means you can articulate one front wheel 32 inches in the air while the other three wheels remain in contact with the ground.

### **High Mobility Characteristics**

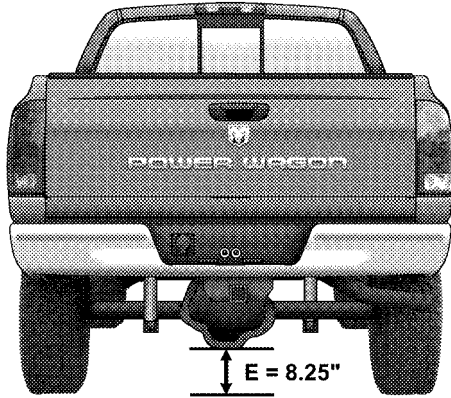
This vehicle has high off-road mobility characteristics with an approach angle  $A= 35$  degrees, a break-over angle  $B= 25.5$  degrees, a running ground clearance  $C= 14.5$  inches, a departure angle  $D= 26.5$  degrees, an axle to ground clearance  $E= 8.4$  inches front/ $E= 8.25$  rear and has a ramp travel index (with the smart bar in off-road mode) of 655. Also, it has a grade-ability of a 60% (31 degree) slope.



816822b9

Angles A, B, C, and D





8153a5bc

Front and Rear (Shown) Differential Height E

### Water Fording Characteristics

Water fording characteristic is the vehicle's ability to cross a body of still water, where the powertrain and drivetrain are safe from water ingestion. This vehicle has high water fording characteristics with the ability to cross a pool of water, without stopping, 24 inches deep at a maximum speed of 10 mph (16 km/h) and a pool of water 30 inches deep at a maximum speed of 5 mph (8 km/h), both with an entrance ramp angle of 1.3 degrees.

### CAUTION!

The door sill height is 25 inches. Water may intrude into the interior of the vehicle at greater depths.

### Simultaneous Brake And Throttle Operation

Many off-road driving conditions require the simultaneous use of the brake and throttle (two footed driving). When climbing rocks, logs, or other stepped objects,

using light brake pressure with light throttle will keep the vehicle from jerking or lurching. This technique is also used when you need to stop and restart a vehicle on a steep incline.

### The Basics Of Off-Road Driving

You will encounter many types of terrain driving off-road. You should be familiar with the terrain and area before proceeding. There are many types of surface conditions: hard packed dirt, gravel, rocks, grass, sand, mud, snow and ice. Every surface has a different effect on your vehicle's steering, handling and traction. Controlling your vehicle is one of the keys to successful off-road driving, so always keep a firm grip on the steering wheel and maintain a good driving posture. Avoid sudden accelerations, turns or braking. In most cases there are no road signs, posted speed limits or signal lights. Therefore you will need to use your own good judgment on what is safe and what isn't. When on a trail you should always be looking ahead for surface obstacles and changes in

terrain. The key is to plan your future driving route while remembering what you are currently driving over.

#### **CAUTION!**

**Never park your vehicle over dry grass or other combustible materials. The heat from your vehicle exhaust system could cause a fire.**

#### **WARNING!**

**Always wear your seat belt and firmly tie down cargo. Unsecured cargo can become projectiles in an off-road situation.**

### When To Use Low Range

When driving off-road, shift into 4L (Low Range) for additional traction or to improve handling and control on slippery or difficult terrain. Due to the lower gearing, low range will allow the engine to operate in a higher power

range. This will allow you to idle over obstacles and down hills, with improved control and less effort. Also, use 4L (Low Range) in rain, ice, snow, mud, sand, to get heavy loads rolling, improve traction, or whenever 4H (High Range) traction will not do the job.

### Driving In Snow, Mud And Sand

There is a drastic reduction in traction when driving in snow, mud or sand. The vehicle will be less responsive to steering, acceleration and braking inputs. Therefore you should accelerate slowly, leave greater stopping distances and avoid abrupt vehicle maneuvers. You want to keep a slow constant steady pace. The key is to maintain the vehicle's momentum.

- **Snow** – In heavy snow or for additional control and traction at slower speeds, shift the transmission to a low gear and shift the transfer case to 4L (Low Range) if necessary. Do not shift to a lower gear than necessary to maintain headway. Over-revving the engine

can spin the wheels and traction will be lost. If you start to slow to a stop, try turning your steering wheel no more than a ¼ turn quickly back and forth, while still applying throttle. This will allow the tires to get a fresh "bite" and help maintain your momentum.

### CAUTION!

**On icy or slippery roads, do not downshift at high engine RPMs or vehicle speeds because engine braking may cause skidding and loss of control.**

- **Mud** – Deep mud creates a great deal of suction around the tires and is very difficult to get through. You should use 4L (Low Range) with a gear low enough to maintain your momentum without shifting. If you start to slow to a stop, try turning your steering wheel no more than a ¼ turn quickly back and forth for additional traction. Mud holes pose an increased threat of vehicle damage and getting stuck. They are

normally full of debris from previous vehicles getting stuck. As a good practice before entering any mud hole, get out and determine how deep it is, if there are any hidden obstacles and if the vehicle can be safely recovered if stuck.

- **Sand** – Soft sand is very difficult to travel through with full tire pressure. When crossing soft sandy spots in a trail maintain your vehicle's momentum and do not stop. The key to driving in soft sand using the appropriate tire pressure, accelerating slowly, avoiding abrupt maneuvers and maintaining the vehicle's momentum. If you are going to be driving on large soft sandy areas or dunes, reduce your tire pressure to a minimum of 15 psi (103 kPa) to allow for a greater tire surface area. Reduced tire pressure will drastically improve your traction and handling, while driving on the soft sand, but you must return the tires to normal

air pressure before driving on pavement or other hard surfaces. Be sure you have a way to air the tires back up prior to reducing the pressure.

### CAUTION!

**Reduced tire pressures may cause tire unseating and total loss of air pressure. To reduce the risk of tire unseating, while at a reduced tire pressure, reduce your speed and avoid sharp turns or abrupt maneuvers.**

### Crossing Obstacles (Rocks And Other High Points)

While driving off road, you will encounter many types of terrain. These varying types of terrain bring different types of obstacles. Before proceeding review the path ahead to determine the correct approach and your ability to safely recover the vehicle if something goes wrong. Keeping a firm grip on the steering wheel, bring the

vehicle to a complete stop and then inch the vehicle forward until it makes contact with the object. Apply the throttle lightly while holding a light brake pressure and ease the vehicle up and over the object.

### **WARNING!**

**Crossing obstacles can cause abrupt steering system loading which could cause you to lose control of your vehicle.**

### **Using a Spotter**

There are many times where it is hard to see the obstacle or determine the correct path. Determining the correct path can be extremely difficult when you are confronting many obstacles. In these cases have someone guide you over, through, or around the obstacle. Have the person stand a safe distance in front of you where they can see the obstacle, watch your tires and undercarriage, and guide you through.

### **Crossing Large Rocks**

When approaching large rocks, choose a path which ensures you drive over the largest with your tires. This will lift your undercarriage over the obstacle. The tread of the tire is tougher and thicker than the side wall and is designed to take the abuse. Always look ahead and make every effort to cross the large rocks with your tires.

### **CAUTION!**

- **Never attempt to straddle a rock that is large enough to strike your axles or undercarriage.**
- **Never attempt to drive over a rock which is large enough to contact the door sills.**

### **Crossing a Ravine, Gully, Ditch, Washout or Rut**

When crossing a ravine, gully, ditch, washout or a large rut, the angled approach is the key to maintaining your vehicle's mobility. Approach these obstacles at a 45-degree angle and let each tire go through the obstacle

independently. You need to use caution when crossing large obstacles with steep sides. Do not attempt to cross any large obstacle with steep sides at an angle great enough to put the vehicle at risk of a rollover. If you get caught in a rut, dig a small trench to the right or left at a 45-degree angle ahead of the front tires. Use the removed dirt to fill the rut ahead of the turnout you just created. You should now be able to drive out following the trench you just created at a 45-degree angle.

### **WARNING!**

**There is an increased risk of rollover when crossing an obstacle, at any angle, with steep sides.**

### **Crossing Logs**

To cross a log, approach it at a slight angle (approximately 10 to 15 degrees). This allows one front tire to be on top of the log while the other just starts to climb the log. While climbing the log, modulate your brake and

accelerator to avoid spinning the log out from under your tires. Then ease the vehicle off the log using your brakes.

### **CAUTION!**

**Do not attempt to cross a log with a greater diameter than the running ground clearance or the vehicle will become high centered.**

### **Getting High Centered**

If you get hung up or high centered on an object, get out of the vehicle and try to determine what the vehicle is hung up on, where it is contacting the underbody and what is the best direction to recover the vehicle. Depending on what you are in contact with, jack the vehicle up and place a few rocks under the tires so the weight is off of the high point when you let the vehicle down. You can also try rocking the vehicle or winching the vehicle off the object.

**CAUTION!**

Winching or rocking the vehicle off hard objects increases the risk of underbody damage.

**Hill Climbing**

Hill climbing requires good judgment and a good understanding of your abilities and your vehicle's limitations. Hills can cause serious problems. Some are just too steep to climb and should not be attempted. You should always feel confident with the vehicle and your abilities. You should always climb hills straight up and down. Never attempt to climb a hill on an angle.

- **Before Climbing A Steep Hill** – As you approach a hill consider its grade or steepness. Determine if it is too steep. Look to see what the traction is on the hill side trail. Is the trail straight up and down? What is on top and the other side? Are there ruts, rocks, branches or other obstacles on the path? Can you safely recover

the vehicle if something goes wrong? If everything looks good and you feel confident, then change transmission into a lower gear, shift the transfer case into 4L (Low) and proceed with caution. You should use first gear and 4L (Low Range) for very steep hills.

- **Driving Up Hill** – Once you have determined your ability to proceed and have shifted into the appropriate gear, line your vehicle up for the straightest possible run. Accelerate with an easy constant throttle and apply more power as you start up the hill. Do not race forward into a steep grade, the abrupt change of grade could cause you to lose control. If the front end begins to bounce, ease off the throttle slightly to bring all four tires back on the ground. As you approach the crest of the hill ease off the throttle and slowly proceed over the top. If the wheels start to slip as you approach the crest of a hill, ease off the accelerator and maintain headway by turning the steering wheel no more than a  $\frac{1}{4}$  turn quickly back and forth. This will provide a

fresh "bite" into the surface and will usually provide enough traction to complete the climb. If you do not make it to the top, place the vehicle in REVERSE and back straight down the grade using engine resistance along with the vehicle brakes.

**WARNING!**

Never attempt to climb a hill at an angle or turn around on a steep grade. Driving across an incline increases the risk of a roll over, which may result in severe injury.

- **Driving Down Hill** – Before driving down a steep hill you need to determine if it is too steep for a safe descent. What is the surface traction? Is the grade too steep to maintain a slow controlled descent? Are there obstacles? Is it a straight descent? Is there plenty of distance at the base of the hill to regain control if the vehicle descends too fast? If you feel confident in your

ability to proceed then make sure you are in 4L (Low Range) with the transmission in 1st gear (manually select 1st gear on automatic transmissions) and proceed with caution. Allow engine braking to control the descent and apply your brakes if necessary, but do not allow the tires to lock.

**WARNING!**

Do not descend a steep grade in NEUTRAL. Use vehicle brakes in conjunction with engine braking. Descending a grade too fast could cause you to lose control and be seriously injured.

- **Driving Across An Incline** – If at all possible avoid driving across an incline. If it is necessary, know your vehicle's abilities. Driving across an incline places more weight on the down hill wheels, which increases the possibilities of a down hill slide or rollover. Make



sure the surface has good traction with firm and stable soils. If possible transverse the incline at an angle heading slightly up or down.

### **WARNING!**

**Driving across an incline increases the risk of a rollover, which may result in severe injury.**

- **If You Stall Or Begin To Lose Headway** – If you stall or begin to lose headway while climbing a steep hill, allow your vehicle to come to a stop and immediately apply the brake. Restart the engine and shift into REVERSE. Back slowly down the hill allowing the compression braking of the engine and transmission to help regulate your speed. If the brakes are required to control vehicle speed, apply them lightly and avoid locking or skidding the tires.

### **WARNING!**

**If the engine stalls or you lose headway or cannot make it to the top of a steep hill or grade, never attempt to turn around. To do so may result in tipping and rolling the vehicle, which may result in severe injury. Always back carefully straight down a hill in REVERSE. Never back down a hill in NEUTRAL using only the vehicle brakes. Never drive diagonally across a hill, always drive straight up or down.**

### **Driving Through Water**

Extreme care should be taken crossing any type of water. Water crossings should be avoided if possible and only be attempted when necessary, in a safe responsible manner. You should only drive through areas which are designated and approved. You should tread lightly and avoid damage to the environment. You should know

your vehicle's abilities and be able to recover it if something goes wrong. You should never stop or shut a vehicle off when crossing deep water unless you ingested water into the engine air intake. If the engine stalls do not attempt to restart it. Determine if it has ingested water first. The key to any crossing is low and slow. You want to use 1st gear in 4L (Low Range) and proceed very slowly with a constant slow speed (3-5 mph [5-8 km/h] maximum) and light throttle. Keep the vehicle moving; do not try to accelerate through the crossing. After crossing any water higher than the bottom of the axle differentials, you should inspect all of the vehicle fluids for signs of water ingestion.

### CAUTION!

**Water ingestion into the axles, transmission, transfer case, engine or vehicle interior can occur if you drive too fast or through too deep of water. Water can cause permanent damage to engine, driveline or other vehicle components and your brakes will be less effective once wet and/or muddy**

- **Before You Cross Any Type Of Water** – As you approach any type of water you need to determine if you can cross it safely and responsibly. If necessary, get out and walk through the water or probe it with a stick. You need to be sure of its depth, approach angle, current and bottom condition. Be careful of murky or muddy waters, check for hidden obstacles. Make sure you will not be intruding on any wildlife and you can recover the vehicle if necessary. The key to a safe

crossing is the water depth, current and bottom conditions. On soft bottoms the vehicle will sink in, effectively increasing the water level on the vehicle. Be sure to consider this when determining the depth and the ability to safely cross.

- **Crossing Puddles, Pools, Flooded Areas Or Other Standing Water** – Puddles, pools, flooded or other standing water areas normally contain murky or muddy waters. These water types normally contain hidden obstacles and make it difficult to determine an accurate water depth, approach angle, and bottom condition. Murky or muddy water holes are where you want to hook up tow straps prior to entering. This makes for a faster, cleaner and easier vehicle recovery. If you are able to determine you can safely cross, than proceed using the low and slow method.

### CAUTION!

**Muddy waters can reduce the cooling system effectiveness by depositing debris onto the radiator.**

- **Crossing Ditches, Streams, Shallow Rivers Or Other Flowing Water** – Flowing water can be extremely dangerous. Never attempt to cross a fast running stream or river even in shallow water. Fast moving water can easily push your vehicle downstream sweeping it out of control. Even in very shallow water, a high current can still wash the dirt out from around your tires putting you and your vehicle in jeopardy. There is still a high risk of personal injury and vehicle damage with slower water currents in depths greater than the vehicle's running ground clearance. You should never attempt to cross flowing water which is deeper than the vehicle's running ground clearance. Even the slowest current can push the heaviest vehicle

downstream out of control if the water is deep enough to push on the large surface area of the vehicle's body. Before you proceed determine the speed of the current, the water's depth, approach angle, bottom condition and if there are any obstacles, then cross at an angle heading slightly upstream using the low and slow technique.

### **WARNING!**

**Never drive through fast moving deep water. It can push your vehicle downstream, sweeping it out of control. This could put you and your passengers at risk of injury or drowning.**

### **Airing Down For Off-Road Driving**

Running lower tire pressure off-road can improve your ride comfort and vehicle traction. Reducing the tire air pressure allows the tire to bulge slightly, improving its surface area for better flotation and ability to mold or

form to the ground contour. Different terrain, tires, and vehicles require different tire pressure. Hard surfaces like rock and heavier vehicles require higher pressures than softer surfaces such as sand and lighter vehicles. You will need to experiment to determine what is right for your situation. It is easier and faster to let air out than it is to replace it so, start high and lower it as required. Remember you must return the tires to normal air pressure before driving on road or at highway conditions. Be sure you have a way to return the tires to their normal on road air pressure.

### **CAUTION!**

**Reduced tire pressure increases the risk of tire damage and may cause tire unseating with total loss of air pressure. To reduce the risk of tire unseating, while at a reduced tire pressure, drive at slower speeds and avoid sharp turns or abrupt maneuvers.**

## Vehicle Recovery

If you drive off-road, you may encounter a situation where you will need to recover your vehicle. Vehicle recovery should always be given consideration before attempting a questionable obstacle. You should never go off-road driving without the ability to recover your vehicle from a situation. Having another vehicle with you usually works best for most situations. The first thing to do is assess the situation. Why are you stuck? Are you hung up on something? Would it be easier to go forward or to go backward? Can you still move the vehicle? Is there an anchor point to winch to? Are you alone or do you have another vehicle to help? Is there high risk of vehicle damage during the recovery process? Answering these questions will help you determine the best method of recovery. If you can still move the vehicle slightly and the only issue is slick ground, then rock cycling your vehicle would be the first choice. If you have ample room, an additional vehicle and there is low risk of

vehicle impingement on the surroundings, then using a tow strap to the vehicle tow hooks would be fast and easy. If the vehicle is severely hung up or in a situation where great care needs to be taken during the recovery, then nothing can do the job better than a winch. If you are severely hung up on something you should jack the vehicle up and stack something under the wheels to allow the vehicle to roll off the object without causing further damage. This should be tried before attempting any recovery method.

### CAUTION!

**Pulling the vehicle off an obstacle, without first clearing the object, may result in additional underbody damage.**

- **Rock Cycling Your Vehicle** – Rock cycling your vehicle is one of the easiest, fastest and most commonly used methods. This simply involves shifting your

vehicle from DRIVE to REVERSE, while applying throttle after each shift. During this process, for additional traction, try turning your steering wheel quickly back and forth no more than a  $\frac{1}{4}$  turn. If you are stuck in mud, sand, or snow try spinning your tires during this process to clean the debris from the tread and improve the traction. You want to create a rocking motion with the vehicle. This helps build vehicle momentum, which hopefully gets you out. Remember to ease off and on the accelerator before and after the shift. If after a few rock cycles your vehicle is not free, stop and try another method of recovery. Continuous rock cycling will only cause unnecessary damage to your vehicle and the environment.

**CAUTION!**

**Damage can occur when spinning your tires at an excessive high speed. Do not spin your tires faster than an indicated 35 mph (56 km/h).**

- **Using the Tow Hooks With a Tow Strap** – Tow straps are a quick and easy way to recover your vehicle from minor situations if you have a secondary vehicle which is not stuck. The tow hooks on your vehicle are designed to take the abusive force generated during vehicle recovery. Do not use the bumper or any other vehicle component as an attachment point. Using tow straps requires coordination between the two drivers. Good communication and line of sight are required for a safe recovery. First connect the tow strap to the correct attachment points on both vehicles. There should be a least 20 to 30 feet between the vehicles to allow for a safe recovery. If necessary join two tow

straps together using a 1 ½ inch hard wood dowel. This will keep the straps from becoming knotted and is safer than using a clevis pin if the strap breaks. Next have the tow vehicle backup, leaving two to three feet worth of slack in the strap. Then the tow vehicle, using light throttle, should accelerate tightening the strap providing the pulling force needed to free the vehicle. The vehicle being recovered should assist in the recovery, at the time of the snap, by slowly spinning the tires in the same direction as the pulling vehicle. After the vehicle becomes free, the driver of the previously stuck vehicle should signal they are free and should hit their brakes stopping both vehicles. The driver of the pulling vehicle should let off the throttle without using the brakes, once signaled by the other driver. This sequence is important to avoid having the recovered vehicle hit the pulling vehicle.

### WARNING!

**Never use tow straps with end hooks or link two straps with a clevis pin. These heavy metal objects could become projectiles if a strap breaks, which could cause severe injury. Never leave more than two or three feet of slack in the strap. More slack than this greatly increases the risk of injury and vehicle damage. Always keep everyone at least 30 feet away from a strapping or winching situation.**

- **Winching (Refer to “Winch Operation” for additional information)** – Winching is most commonly used in the following situations: there is no support vehicle available, a high controlled force is required to recover the vehicle, there is a high risk of environmental or vehicle damage, or where nothing else seems to work. A winch can deliver a high pulling force with a great deal of control. It allows you to walk the vehicle

out of the situation in a slow controlled manner. This control works well for avoiding further vehicle damage. Once you decide it is time to use the winch look for a good anchor point. It needs to be strong enough to hold more than the vehicle's weight and provide a direction of pull as straight as possible. Use block and tackle if necessary to improve the angle of pull or increase the winch's pulling force. If the anchor point is a tree use a strap around its base and hook the cable to the strap. If it is another vehicle, then place that vehicle in PARK and block the front tires. If you cannot find an anchor point within reach try using your spare tire by burying it. Once you have determined an anchor point hook up the cable, ensuring there are a least five wraps of cable left on the drum, and place a floor mat or something else over the strung out cable. Placing something over the strung out cable helps keep the cable on the ground if it breaks. Next, place the vehicle in 1st gear and apply a very light throttle as

you power the winch in. Be careful not to allow slack in the cable as you recover the vehicle. Do not try to guide the cable into the drum. If it starts to bunch up on one end, let it. You can re-spool the cable afterwards. Never use a winch cable as a tow strap and always stand back while winching.

### **WARNING!**

**Winch cables are under high tension when in use and can become a projectile if they fail. Never stand over or straddle the winch cable. Never jerk or overload the winch cable. Never stand in front of the vehicle while winching. Failure to follow these instructions can result in serious or fatal injury.**

### **After Driving Off-Road**

Off-road operation puts more stress on your vehicle than does most on-road driving. After driving off-road, it is always a good idea to check for damage.



- Completely inspect the underbody of your vehicle. Check tires, body structure, steering, suspension, and exhaust system for damage.
- Check threaded fasteners for looseness, particularly on the chassis, drivetrain components, steering, and suspension. Retighten them, if required, and torque to the values specified in the Service Manual.
- Check for accumulations of plants or brush. These things could be a fire hazard, or they might hide damage to fuel lines, brake hoses, axle pinion seals, and propeller shafts.
- After extended operation in mud, sand, water, or similar dirty conditions, have brake drums and rotors, brake linings, and axle yokes inspected and cleaned as soon as possible.
- If you experience unusual vibration after driving in mud, slush or similar conditions, check the wheels for packed material. Packed foreign material can cause a wheel imbalance and cleaning the wheels will correct the situation.

**WARNING!**

**Abrasive material in any part of the brakes may cause excessive wear or unpredictable braking. You might not have full braking power when you need it to prevent an accident. If you have been operating your vehicle in dirty conditions, get your brakes checked and cleaned as necessary. Failure to do so may result in serious injury.**

### LIMITED-SLIP DIFFERENTIAL – IF EQUIPPED

The limited-slip differential provides additional traction on snow, ice, mud, sand and gravel, particularly when there is a difference between the traction characteristics of the surface under the right and left rear wheels. During normal driving and cornering, the limited-slip unit performs similarly to a conventional differential. On slippery surfaces, however, the differential delivers more of the driving effort to the rear wheel having the better traction.

The limited-slip differential is especially helpful during slippery driving conditions. With both rear wheels on a slippery surface, a slight application of the accelerator will supply maximum traction. When starting with only one rear wheel on an excessively slippery surface, slight momentary application of the parking brake may be necessary to gain maximum traction.

### WARNING!

**On vehicles equipped with a limited-slip differential never run the engine with one rear wheel off the ground since the vehicle may drive through the rear wheel remaining on the ground. You could lose control of the vehicle.**

Care should be taken to avoid sudden accelerations when both rear wheels are on a slippery surface. This could cause both rear wheels to spin, and allow the vehicle to slide sideways on the crowned surface of a road or in a turn.

### DRIVING ON SLIPPERY SURFACES

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tire and road surface. This is known as hydroplaning and may cause partial or complete loss of vehicle control and stopping

ability. To reduce this possibility, the following precautions should be observed:

1. Slow down during rainstorms or when roads are slushy.
2. Slow down if the road has standing water or puddles.
3. Replace tires when tread wear indicators first become visible.
4. Keep tires properly inflated.
5. Maintain sufficient distance between your vehicle and the car in front of you to avoid a collision in a sudden stop.

### **DRIVING THROUGH WATER**

Driving through water more than a few inches/centimeters deep will require extra caution to ensure safety and prevent damage to your vehicle.

### **Flowing/Rising Water**

#### **WARNING!**

**Do not drive on or across a road or path where water is flowing and/or rising (as in storm run-off). Flowing water can wear away the road or path's surface and cause your vehicle to sink into deeper water. Furthermore, flowing and/or rising water can carry your vehicle away swiftly. Failure to follow this warning may result in injuries that are serious or fatal to you, your passengers, and others around you.**

### **Shallow Standing Water**

Although your vehicle is capable of driving through shallow standing water, consider the following Caution and Warning before doing so.

**CAUTION!**

- Always check the depth of the standing water before driving through it. Never drive through standing water that is deeper than the bottom of the tire rims mounted on the vehicle.
- Determine the condition of the road or the path that is under water and if there are any obstacles in the way before driving through the standing water.
- Do not exceed 5 mph (8 km/h) when driving through standing water. This will minimize wave effects.

*(Continued)*

**CAUTION! (Continued)**

- Driving through standing water may cause damage to your vehicle's drivetrain components. Always inspect your vehicle's fluids (i.e., engine oil, transmission/transaxle, axle, etc.) for signs of contamination (i.e., fluid that is milky or foamy in appearance) after driving through standing water. Do not continue to operate the vehicle if any fluid appears contaminated, as this may result in further damage. Such damage is not covered by the New Vehicle Limited Warranty.
- Getting water inside your vehicle's engine can cause it to lock up and stall out, and cause serious internal damage to the engine. Such damage is not covered by the New Vehicle Limited Warranty.

**WARNING!**

- Driving through standing water limits your vehicle's traction capabilities. Do not exceed 5 mph (8 km/h) when driving through standing water.
- Driving through standing water limits your vehicle's braking capabilities, which increases stopping distances. Therefore, after driving through standing water, drive slowly and lightly press on the brake pedal several times to dry the brakes.
- Getting water inside your vehicle's engine can cause it to lock up and stall out, and leave you stranded.
- Failure to follow these warnings may result in injuries that are serious or fatal to you, your passengers, and others around you.

**DRIVING OFF-ROAD — RAM TRUCK ONLY**

Care should be taken when attempting to climb steep hills or driving diagonally across a hill or slope. If natural obstacles force you to travel diagonally up or down a hill, choose a mild angle and keep as little side tilt as possible. Keep the vehicle moving and make turns slowly and cautiously.

If you must back down a hill, back straight down using REVERSE gear. Never back down in NEUTRAL, or diagonally across the hill.

When driving over sand, mud, and other soft terrain, shift to low gear and drive steadily. Apply the accelerator slowly to avoid spinning the wheels.

DO NOT REDUCE the tire pressures for this type of driving.

**NOTE:** After off-road usage, particularly in sand or mud, inspect the underside of the vehicle for accumulated dirt at the propeller shaft, axles, U-joints, brake rotors and calipers.

Use a hose to clean off any accumulation of dirt or mud.

Check the exhaust system and all exposed components for any sign of damage.

If you experience unusual vibration after driving in mud, slush or similar conditions, check the wheels for impacted material. Impacted foreign material can cause a wheel imbalance. Removing the foreign material from the wheels will correct the situation.

## **WINCH USAGE – IF EQUIPPED (POWER WAGON ONLY)**

### **Things To Know Before Using Your Winch**

#### **General Winch Information**

Your vehicle is equipped with an electric vehicle recovery winch. This winch uses the electrical power from the vehicle charging system to power a motor that winds wire rope into the winch drum via planetary gear reduction. By nature, a winch is capable of generating very high forces and should be used with care. Do not operate the winch without reading and understanding the complete winch owner's manual.

#### **Tensioning the Wire Rope**

The winch rope must be properly tensioned before use. Follow the instructions below to tension the rope:

1. Un-spool the wire rope leaving five wraps of rope on the winch drum.

2. Attach the hook to a suitable anchor point.

**CAUTION!**

**Be certain the anchor will withstand the load required to tension the wire rope.**

3. Apply at least 500 lbs (227 kg) of tension to the rope while winding the rope. Always use care to ensure the rope does not pile up on one side of the drum and is neatly wound onto the drum.

**CAUTION!**

**Wire rope must spool on the winch drum in the direction indicated on the drum rotation decal on the winch.**

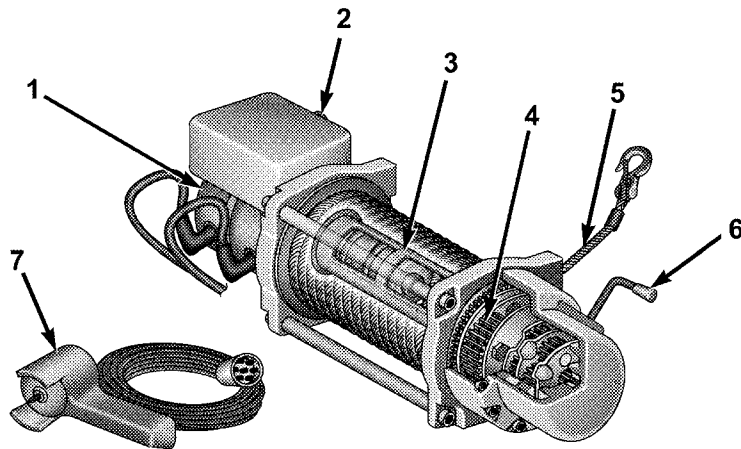
**Low Voltage Interrupt**

Your winch is equipped with a device that will interrupt winch function if the vehicle charging system voltage drops to a low level. The winch will not power-in or out for 30 seconds if this device is tripped. If the interrupt is tripped, the vehicle should be operated at high idle for a few minutes to allow the vehicle charging system to recover before continuing to winch.

**Winch Motor Thermal Protection**

Your winch is equipped with a thermal protection device in the motor. If the winch is operated for an excessive duration, the device may interrupt motor function to protect the winch motor. During this time the winch will power-out but will not power-in. Allow the winch motor to cool for a few minutes before continuing to winch. The winch will resume normal function once the motor cools.

## Understanding The Features Of Your Winch



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Winch Components



1. **Motor:** The winch motor is powered by the vehicle charging system and features a thermal protection switch that automatically stops motor function in the power-in direction if the motor gets too hot.
2. **Remote Socket:** The remote socket allows the remote control to be attached to the control pack to allow the winch to function.
3. **Winch Drum with Integral Brake:** The winch drum allows the wire rope to be stored on the winch and transmits force to the wire rope. The winch is equipped with an integral brake that will stop rotation of the winch drum if the winch motor is stopped.
4. **3-Stage Planetary Gear Set:** Provides balance between speed and pulling power.
5. **Wire Rope:** The wire rope allows the winch to be connected to an anchor to provide a pulling force.

6. **Clutch Lever:** The clutch lever allows the winch drum to be disconnected from the winch motor to allow the wire rope to be pulled from the winch by hand.

7. **Remote Control:** The remote control provides the interface between the winch operator and the winch. The remote control provides the ability to power the winch in, out, and stop the winch. To operate the winch, the toggle switch is pressed down to power the winch in and up to power the winch out. The winch will stop if the switch is left in the neutral (center) position.

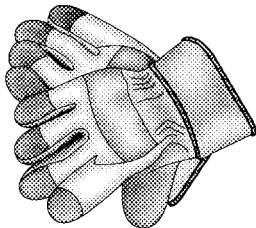
### CAUTION!

If not installed, the hook strap must be placed on the hook.

**Fairlead:** The fairlead acts as a guide for the wire rope and minimizes damage to the rope.

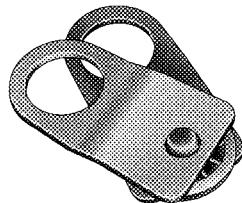
## Winch Accessories

The following accessories are necessary to attach the winch to anchors, change direction of pull, and for safe winching.



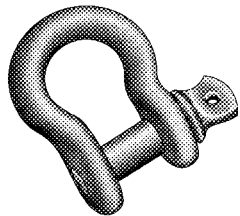
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**Gloves:** Wire rope, through use, will develop "barbs" which can slice skin. It is extremely important to wear protective gloves while operating the winch or handling the wire rope. Avoid loose fitting clothes or anything that could become entangled in the wire rope and other moving parts.



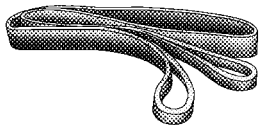
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**Snatch/Block Pulley:** Used properly, the multi-purpose snatch block allows you to (1) increase the winch's pulling power; and (2) change your pulling direction without damaging the wire rope. Proper use of the snatch block is covered in "Before You Pull."



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**Clevis/D-Shackles:** The D-Shackle is a safe means of connecting the looped ends of cables, straps and snatch blocks. The shackle's pin is threaded to allow easy removal.



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**Tree Trunk Protector:** Typically made of tough, high-quality nylon, it provides the operator an attachment point for the winch rope to a wide variety of anchor points and objects, as well as protect living trees.

## Operating Your Winch

### WARNING!

- Always use supplied hook strap to hold the hook when spooling wire rope in or out.
- Never use as a hoist.
- Never use to move persons.
- Never exceed winch or wire rope rated capacity.
- Always wear heavy leather gloves when handling the wire rope.
- Never touch wire rope or hook while in tension or under load.
- Never engage or disengage clutch if winch is under load, wire rope is in tension, or wire rope drum is moving.
- Always stand clear of wire rope and load and keep others away during winching.

*(Continued)*

**WARNING! (Continued)**

- Always keep hands and clothing clear of the wire rope, hook and fairlead opening during operation and when spooling.
- Never wrap wire rope back onto itself. Always use a choker chain, wire choker rope or tree trunk protector on the anchor.
- Never attach a recovery strap to the winch hook to increase the length of a pull.
- Never attempt to tow a vehicle with the recovery strap attached directly to the winch hook.
- Never use "bungee" straps that develop tremendous and potentially dangerous amounts of force when stretched.
- Always disconnect the remote control when not in use.

*(Continued)*

**WARNING! (Continued)**

- Never winch when there are less than five wraps of wire rope around the winch drum.
- Always pass remote control through a window to avoid pinching lead in door, then using remote inside a vehicle.
- Never leave the remote control plugged into the winch while free spooling, rigging or sitting idle.

Failure to observe any of these warnings regarding proper winch usage may result in severe injury.

## General Information

Practice using your winch before you get stuck. Some key points to remember when using your winch are:

1. Always take your time to assess the situation and plan your pull carefully.
2. Always take your time when using a winch.
3. Use the right equipment for the situation.
4. Always wear leather gloves and do not allow the wire rope to slip through your hands when handling the rope.
5. Only the operator should handle the wire rope and remote control.
6. Think safety at all times.

## Vehicle Recovery Using the Winch

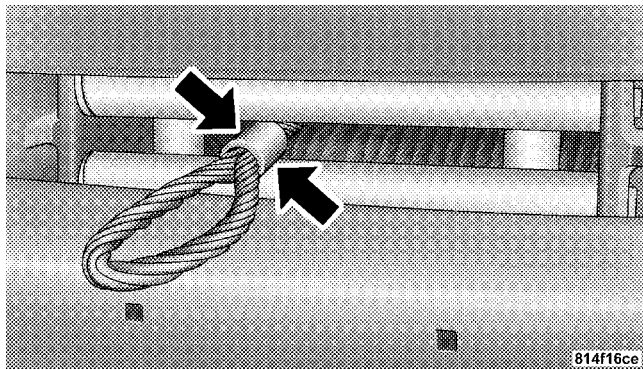
### CAUTION!

- **Always Know Your Winch:** Take the time to fully read and understand the included Installation and Operations Guide, and Basic Guide to Winching Techniques, in order to understand your winch and the winching operation.
- **Always inspect winch installation and wire rope condition before operating the winch.** Frayed, kinked or damaged wire rope must be replaced immediately. Loose or damaged winch installation must be corrected immediately.
- **Always be sure any element which can interfere with safe winching operations is removed prior to initiating winching.**

*(Continued)*

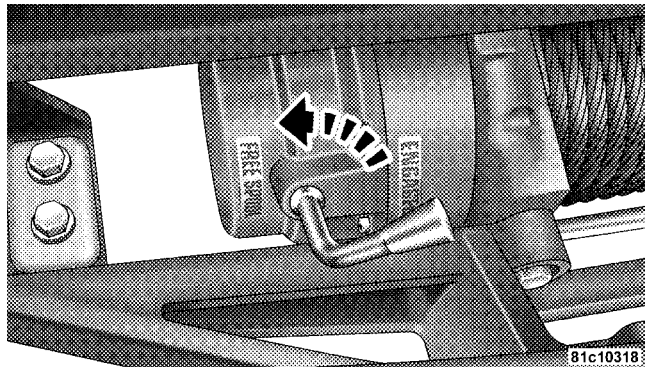
**CAUTION! (Continued)**

- Always keep remote control lead clear of the drum, wire rope and rigging.
- Inspect for cracks, pinches, frayed wires, or loose connections. Replace if damaged.
- Be careful not to pull the Winch Cable Collar through the rollers. Watch and listen to Winch for proper snugness.



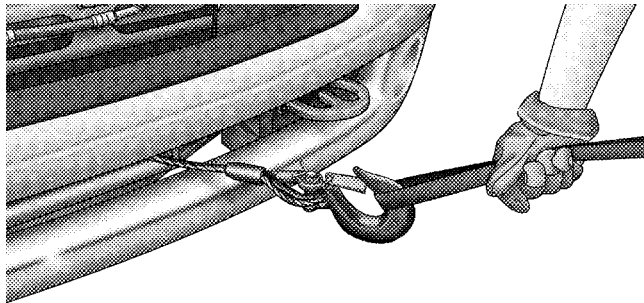
1. Inspect the winch, winch mount, and wire rope for damage. Do not use the winch if the mount is loose or rope shows excessive wear or damage.
2. Put on gloves.

3. Disengage the clutch to allow free spooling of the winch drum, rotate the clutch lever on the winch to disengage. Freespooling conserves battery power.



Free Spool

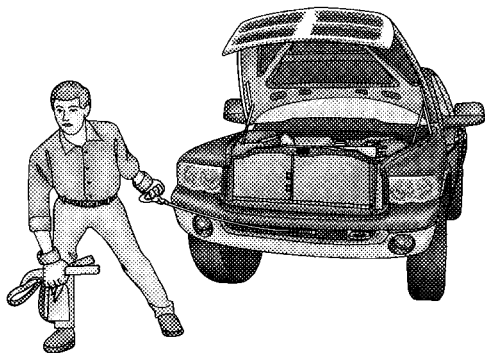
4. Free the winch hook and attach the hook strap. Free the winch hook from its anchor point. Attach the hook strap to the hook (if not attached).



Hook Strap

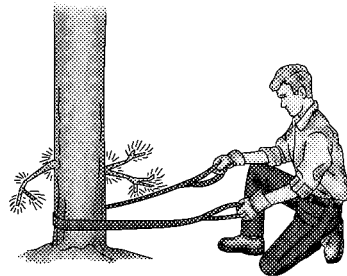
5. Pull the wire to the anchor point. Pull out enough wire rope to reach your anchor point. Be sure to keep a certain amount of tension on the wire as it can become twisted

and over-wrapped when slackened, leading to wire rope damage. To prevent losing the end, hold the hook strap while you work.



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6. Secure to the anchor point. Once you have established your anchor point, secure the tree-trunk protector or choker-chain around the object.



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### Tree Trunk Protector

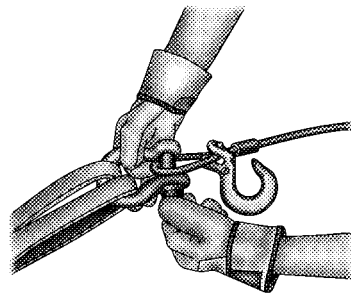
## CAUTION!

Always be certain the anchor you select will withstand the load.



**NOTE: How to choose an anchor point:** A secure anchor is critical to winching operations. An anchor must be strong enough to hold while winching. Natural anchors include trees, stumps and rocks. Hook the cable as low as possible. If no natural anchors are available when recovering another vehicle, your vehicle becomes the anchor point. In this case, be sure to put the transmission in NEUTRAL, apply the hand brake and block its wheels to prevent your vehicle from moving. Ideally, you'll want an anchor point that will enable you to pull straight in the direction the vehicle will move. This allows the wire rope to wind tightly and evenly onto the spooling drum. An anchor point as far away as possible will provide the winch with its greatest pulling power.

7. Attach the Clevis/D-shackle and Tree Trunk Protector. Attach the shackle to the two ends of the strap or chain and through the hook loop, being careful not to over tighten (tighten and back-off 1/2 turn).



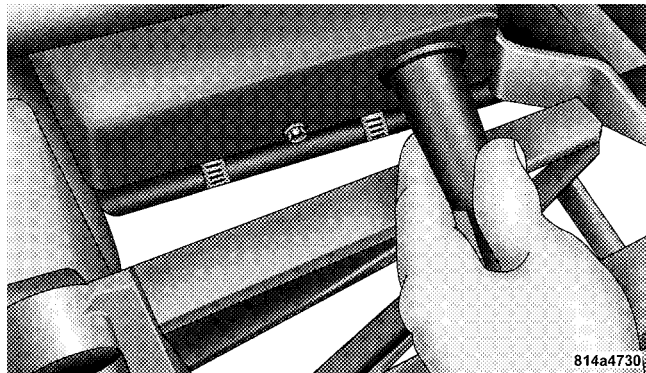
#### Clevis/D-Shackles

8. Lock the clutch. Lock the winch drum by rotating the clutch lever on the winch to engage.

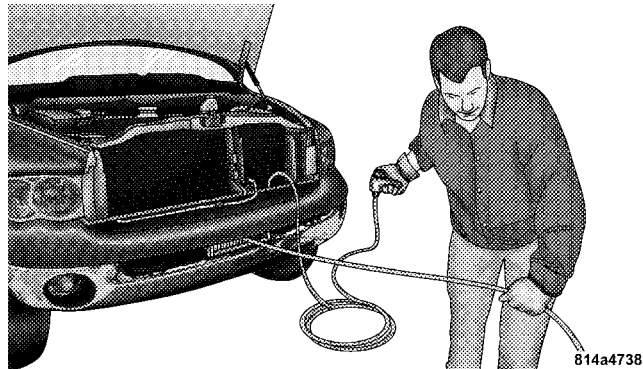
**NOTE:** Always ensure the clutch is fully engaged or disengaged.

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9. Connect the remote control to the winch control box, located behind the front bumper. Be careful not to let the remote control cord dangle in front of the winch. If you choose to control the winch from inside your vehicle, always pass the remote through a window to avoid pinching the cord in the door. Always disconnect the remote control when not in use.

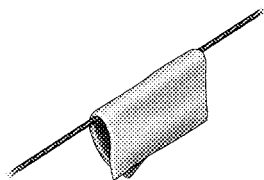
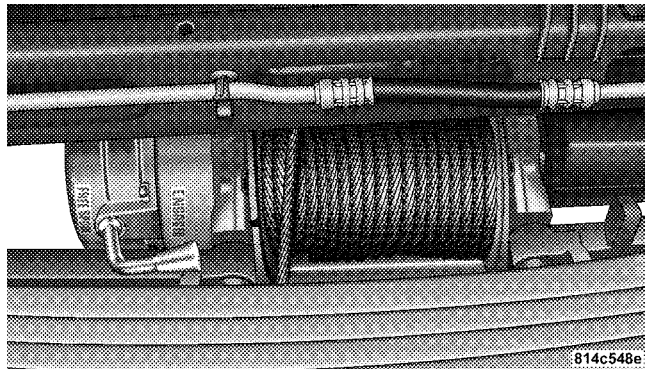


10. Put wire rope under tension. Using the remote control switch, slowly wind the wire rope until no slack remains. Once the wire rope is under tension, stand well clear of it and never step over it.



11. Check your anchor. Make sure all connections are secured and free of debris before continuing with the winching procedure.

12. Check wire rope. The wire rope should be neatly wound around the spooling drum. Improper winding can cause damage to the wire rope.



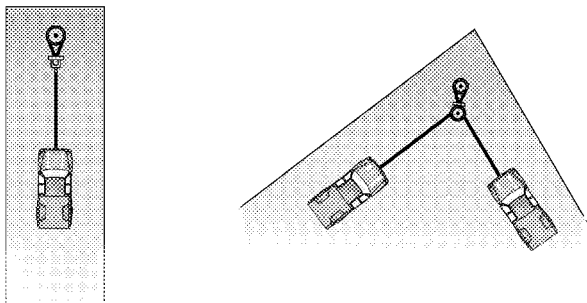
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13. In certain situations you may decide to throw a heavy blanket or similar object over the wire rope. A heavy blanket can absorb energy should the wire rope break. Place it on the wire rope midway between the winch and the anchor point. Do this before the wire rope is put under tension.

Do not approach or move the blanket once tension is applied. Do not allow it to get pulled into the fairlead. If it is necessary to move or remove the blanket, slack the tension on the wire rope first.

14. **Establish "no people" zones:** Make your intentions clear. Be sure that everyone in the immediate vicinity surrounding the winching operation is completely aware of your intentions before you pull. **Declare where the spectators should not stand - never behind or in front of**

the vehicle and never near the wire rope or snatch block. Your situation may have other "no people" zones.

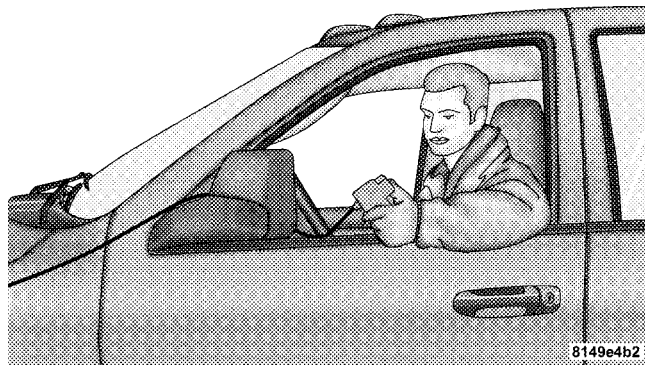


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### No People Zones

15. Begin winching. With the winching vehicle's engine on and light tension already on the wire rope, begin winching slowly and steadily. Be sure that the wire rope is winding evenly and tightly around the spooling drum.

For additional assistance, the winched vehicle can be slowly driven while being pulled by the winch. Continue pulling until the vehicle is on stable ground. If you are able to drive the vehicle, the winching operation is complete.



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### Using The Remote Control

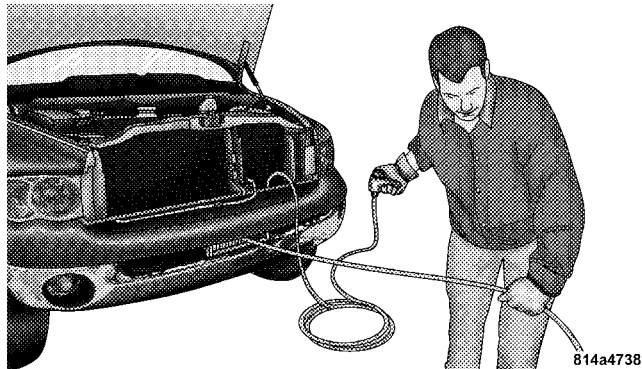
**NOTE:**

- Avoid overheating the winch motor. For extended winching, stop at reasonable intervals to allow the winch motor to cool down.
- **What to look for under load:** The wire rope must always spool onto the drum as indicated by the drum rotation decal on the winch. As you power-in, make sure the wire rope winds evenly and tightly on the drum. This prevents the outer wire wraps from drawing into the inner wraps, binding and damaging the wire rope. Avoid shock loads by using the control switch intermittently to take up wire rope slack. Shock loads can momentarily far exceed the winch and wire rope ratings. During side pulls the wire rope tends to stack up at one end of the drum. This stack can become

large enough to cause serious damage to the winch. So, line up pulls as straight ahead as possible and stop winching if the wire rope comes close to the tie rods or mounting plate. To fix an uneven stack, spool out that section of the rope and reposition it to the opposite end of the drum, which will free up space for continued winching.

16. Secure vehicle. Once recovery of the vehicle's is complete, be sure to secure the vehicle's brakes and put the transmission in PARK. Release tension in the wire rope.
17. Disconnect the wire rope, and disconnect from the anchor.

18. Rewind the wire rope. The person handling the wire rope should walk the rope in and not let it slide through the hand, control the winch at all times.

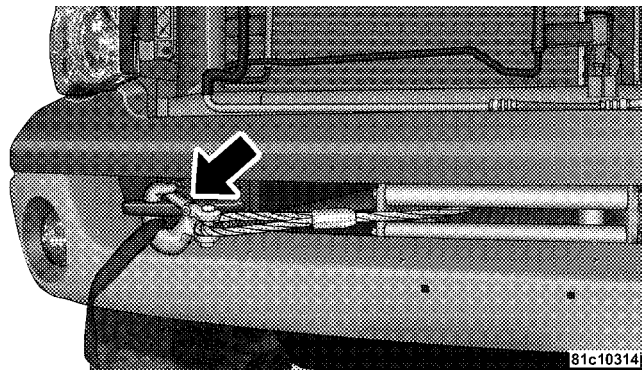


### WARNING!

To prevent serious injury, **NEVER** put your fingers inside the hook area as you are powering-in.

**NOTE: How to spool under no load:** Arrange the remote control lead so it cannot be caught in the winch. Arrange the wire rope so it will not kink or tangle when spooled. Be sure any wire rope already on the spooling drum is wound tightly and evenly layered. Tighten and straighten the layer if necessary. Keep the wire rope under light tension and spool the wire rope back and onto the winch drum in even layers. Stop frequently to tighten and straighten the layers as necessary. Repeat this process until the winch hook is the same distance as the full length of the remote control from the winch. Pinch the hook between your thumb and forefinger and attach the hook strap. Hold the hook strap between the thumb and forefinger to keep tension on the wire rope. Walk the wire rope towards the fairlead, carefully spooling in the remaining wire rope. By pulsing the remote control switch.

19. Store the hook on the most outboard loop of the tow hook.



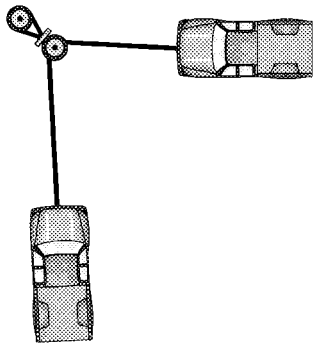
20. Disconnect the remote control. Disconnect the remote control cord from the control box and store in a clean and dry place. Winching operations are now complete. Put the cap on the solenoid plug-in.

**NOTE:** Always store the remote control in a protected, clean, dry area.

## Rigging Techniques

Various winching situations will require application of other winching techniques. These could range from too little distance to achieve maximum pull using straight line rigging, simply increasing pulling power, or maintaining a straight-line pulling situation. You will have to assess what technique is correct for your situation. Think "safety" at all times.

## How to Change the Pulling Direction



Change Pulling Directions

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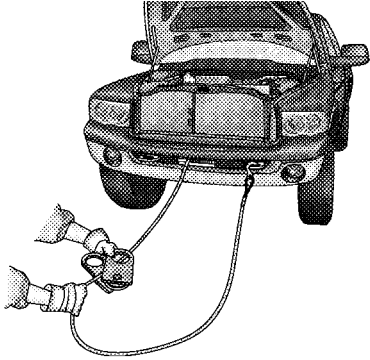
All winching operations should have a straight line from the winch to the object being pulled. This minimizes the wire rope collecting on one side of the drum affecting pulling efficiency and damaging wire rope. A snatch block, secured to a point directly in front of the vehicle will enable you to change your pulling direction while still allowing the wire rope to be at 90° to wind properly onto the spooling drum.

### Increasing Pulling Power

In some cases, you may find yourself needing more pulling power. The use of snatch blocks increases mechanical advantage and that increases your pulling power.



## Double Line



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Because pulling power decreases with the number of layers of wire rope on the winch drum, you can use a snatch block to double line out more wire rope. This decreases the number of layers of wire rope on the drum, and increases pulling power. Start by feeding out enough wire rope to free the winch hook. Attach the hook to your

vehicle's frame/tow hook and run the wire rope through a snatch block. Disengage the clutch and, using the snatch block, pull out enough wire to reach your anchor point. Do not attach the hook to the mounting kit. Secure to the anchor point with a tree trunk protector or choker chain. Attach the clevis/shackle. Attach the shackle to the two ends of the strap/chain, being careful not to over tighten (tighten and back-off 1/2 turn).

## POWER STEERING

The standard power steering system will give you good vehicle response and increased ease of maneuverability in tight spaces. The system will provide mechanical steering capability if power assist is lost.

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 do 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 amount of time. This is due to the cold, thick fluid in the steering system. This noise should be considered normal, and it 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 it should be avoided when possible. Damage to the power steering pump may occur.**

### **Power Steering Fluid Check**

Checking the power steering fluid level at a defined service interval is not required. The fluid should only be checked if a leak is suspected, abnormal noises are apparent, and/or the system is not functioning as anticipated. Coordinate inspection efforts through an authorized dealer.

No chemical flushes should be used in any power steering system; only the approved lubricant may be used.

**WARNING!**

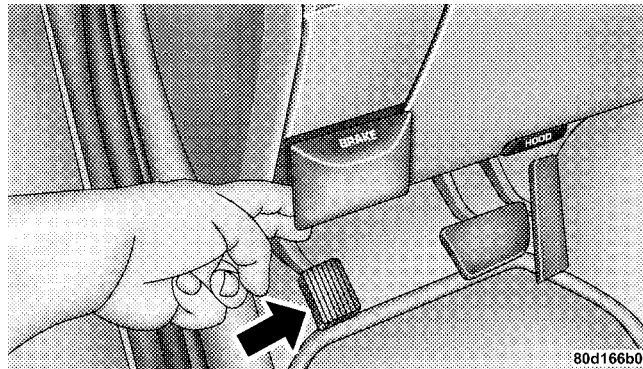
Fluid level should be checked on a level surface and with the engine off to prevent injury from moving parts and to ensure accurate fluid level reading. Do not overfill. Use only manufacturer's recommended power steering fluid.

If necessary, add fluid to restore to the proper indicated level. With a clean cloth, wipe any spilled fluid from all surfaces. Refer to "Fluids, Lubricants, and Genuine Parts" in Section 7 for the correct fluid type.

**PARKING BRAKE**

The foot-operated parking brake is positioned below the lower left corner of the instrument panel. To release the parking brake, pull the parking brake release handle.

**NOTE:** The "Brake Warning Light" will come on and flash to indicate that the parking brake is applied. You must be sure that the parking brake is fully applied before leaving the vehicle.



**Parking Brake**

Be sure the parking brake is firmly set when parked and the shift lever is in the PARK position. When parking on

a hill, you should apply the parking brake before placing the shift lever in PARK, otherwise, the load on the transmission locking mechanism may make it difficult to move the shift lever out of PARK.

**WARNING!**

- Always fully apply the parking brake when leaving your vehicle, or it may roll and cause damage or injury. Also be certain to leave the transmission in PARK. Failure to do so may allow the vehicle to roll and cause damage or injury.
- Never leave children alone in a vehicle. Leaving unattended children in a vehicle is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Do not leave the key in the ignition. A child could operate power windows, other controls, or move the vehicle.

*(Continued)*

**WARNING! (Continued)**

- Be sure the parking brake is fully disengaged before driving, failure to do so can lead to brake problems due to excessive heating of the rear brakes.

When parking on a hill, turn the front wheels toward the curb on a downhill grade and away from the curb on an uphill grade.

The parking brake should always be applied whenever the driver is not in the vehicle.

**BRAKE SYSTEM**

If power assist is lost for any reason (for example, repeated brake applications with the engine off), the brakes will still function. However, you will experience a substantial increase in braking effort to stop the vehicle.

If either the front or rear hydraulic system loses normal braking capability, the remaining system will still function with some loss of overall braking effectiveness. This will be evident by increased pedal travel during application, greater pedal force required to slow or stop, and activation of the “Brake Warning Light” and the “ABS Warning Light” (If Equipped) during brake use.

### **3500 Dual Rear Wheel Models Only**

The brake system power assist is provided by a hydro-boost unit which shares fluid with the power steering system. You may experience some clicking or hissing noises from the hydro-boost system during hard braking conditions.

**NOTE:** Under cold temperatures, pedal effort will be higher than normal until the power steering fluid reaches operating temperature.

## **Four-Wheel Anti-Lock Brake System**

### **WARNING!**

**The Four-Wheel Anti-Lock Brake System contains sophisticated electronic equipment. It may be susceptible to interference caused by improperly installed or high output radio transmitting equipment. This interference can cause possible loss of anti-lock braking capability. Installation of such equipment should be performed by qualified professionals.**

The Four-Wheel Anti-lock Brake System (ABS) is designed to aid the driver in maintaining vehicle control under adverse braking conditions. The system operates with a separate computer to modulate hydraulic pressure to prevent wheel lockup and help avoid skidding on slippery surfaces.

The system's pump motor runs during an ABS stop to provide regulated hydraulic pressure. The pump motor makes a low humming noise during operation. This is normal.

The ABS conducts a low-speed selftest at about 10 mph (16 km/h). If you have your foot lightly on the brake while this test is occurring, you may feel slight pedal movement. The movement can be more apparent on ice and snow. This is normal.

The ABS pump motor runs during the self-test at 10 mph (16 km/h) and during an ABS stop. The pump motor makes a low humming noise during operation. This is normal.

When you are in a severe braking condition involving use of the ABS, you will experience some pedal drop as the vehicle comes to a complete stop. This is the result of the system reverting to the base brake system and is normal.

Engagement of the ABS may be accompanied by a pulsing sensation. You may also hear a clicking noise. These occurrences are normal, and indicate that the system is functioning.

### **ABS Warning Light**

The ABS includes an amber warning light. When the light is illuminated, the ABS is not functioning. The system reverts to standard, non-anti-lock brakes.

#### **WARNING!**

- **Pumping of the anti-lock brakes will diminish their effectiveness and may lead to an accident. Pumping makes the stopping distance longer. Just press firmly on your brake pedal when you need to slow down or stop.**

*(Continued)*

**WARNING! (Continued)**

- The Anti-Lock Brake System (ABS) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking or steering efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.
- The ABS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.
- The capabilities of an ABS-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.

**ELECTRONIC BRAKE CONTROL SYSTEM — IF EQUIPPED**

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

**Anti-Lock Brake System (ABS)**

The ABS aids the driver in maintaining vehicle control under adverse braking conditions. The system controls hydraulic brake pressure to prevent wheel lockup and help avoid skidding on slippery surfaces during braking. For more information about ABS, refer to "Anti-Lock Brake System" under "Brake System" in Section 5 of this manual.

**NOTE:** ABS improves steering control of the vehicle during hard braking maneuvers.

### **WARNING!**

- **ABS cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking or steering efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.**
- **The ABS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.**
- **The capabilities of an ABS-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**

### **Traction Control System (TCS)**

The TCS monitors the amount of wheel spin of each of the driven wheels. If wheel spin is detected, brake pressure is applied to the slipping wheel(s), and engine power is reduced to provide enhanced acceleration and stability. A feature of the TCS functions similar to a limited-slip differential and controls the wheel spin across a driven axle. If one wheel on a driven axle is spinning faster than the other, the system will apply the brake of the spinning wheel. This will allow more engine torque to be applied to the wheel that is not spinning. This feature remains active even if TCS and ESP are in the "Partial Off" mode. Refer to "Electronic Stability Program (ESP)" in this section of this manual. This brake pressure modulation transfers drive torque from slipping to non-slipping wheels to provide optimal forward traction.



### **Brake Assist System (BAS)**

The BAS is designed to optimize the vehicle's braking capability during emergency braking maneuvers. The BAS detects an emergency braking situation by sensing the rate and amount of brake application and then applies optimum pressure to the brakes. The system applies optimum pressure to the brakes in emergency braking conditions. This can help reduce braking distances. The BAS complements the ABS. Applying the brakes very quickly results in the best BAS assistance. To receive the benefit of BAS, you must apply continuous braking pressure during the stopping sequence. Do not reduce brake pedal pressure unless braking is no longer desired.

Once the brake pedal is released, the BAS is deactivated.

### **WARNING!**

- The BAS cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.
- The BAS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.
- The capabilities of a BAS-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.

### Hill Start Assist (HSA)

The HSA system is designed to assist the driver in launching a vehicle on an incline. HSA will maintain the level of brake pressure the driver inputs for a short duration once the driver takes his foot off of the brake pedal. If the driver does not apply the throttle during this short duration, the system will release brake pressure and the vehicle will roll down the incline. The system will release brake pressure in proportion to the amount of throttle applied.

During operation, Hill Start Assist will activate the brake control system and a clicking noise will occur. If your foot is on the brake pedal during operation you may feel a slight pedal movement. The clicking and pedal movement is normal and both will stop when HSA becomes inactive.

### HSA Activation Criteria

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

- Vehicle must be stopped
- Vehicle must be on a 7% or greater incline
- Gear selection matches vehicle uphill direction (i.e., vehicle facing uphill is in forward gear; vehicle backing uphill is in REVERSE gear).

#### **WARNING!**

**There may be situations on minor hills (i.e., less than 7%), with a loaded vehicle, or while pulling a trailer where the system will not activate and slight rolling may occur, which could cause a collision with another vehicle or object. Always remember the driver is responsible for braking the vehicle.**

The system will only work if the intended direction of the vehicle and vehicle gear match. For example, if the intended direction is forward up a hill and the vehicle is in DRIVE, and the activation criteria are met, HSA will activate.

### **HSA on Automatic Transmission Vehicles**

The system will work in REVERSE and all forward gears on vehicles equipped with an automatic transmission. The system will not activate if the vehicle is placed in NEUTRAL.

### **Towing and Hauling with HSA (Vehicles Equipped with Automatic Transmissions Only)**

The HSA system does not know if your vehicle is loaded or towing a trailer, unless the TOW/HAUL button, located on the shift lever, is selected. When activated, the TOW/HAUL light will illuminate in the instrument cluster. For more information on the TOW/HAUL mode, refer to “When To Use TOW/HAUL and O/D OFF Modes” under “Automatic Transmission” in Section 5. In order to accommodate the extra weight entailed under towing and hauling conditions and to increase driver comfort while launching on a hill, the system recognizes when the TOW/HAUL button is activated and compensates by releasing brake pressure at a slower rate while throttle is applied in order to prevent the vehicle from rolling down the hill.

**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 incline while resuming acceleration, manually activate the trailer brake or apply more vehicle brake pressure prior to releasing the brake pedal. Always remember the driver is responsible for braking the vehicle.

*(Continued)*

**WARNING! (Continued)**

- HSA is not a parking brake. If you stop the vehicle on a hill without putting the transmission in PARK or using the parking brake, it will roll down the incline 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, follow this procedure:

1. Start with the engine off, and vehicle in PARK with wheels straight.
2. Start the engine.
3. With the engine running, the brake applied, rotate the steering wheel 180° counterclockwise from center.

4. Press ESP button four times within twenty seconds. The “ESP/TCS Indicator Light” should appear and disappear four times.
5. Rotate the steering wheel 360° clockwise (180° clockwise from center).
6. Cycle ignition switch OFF then ON.
7. If the sequence was completed properly, the “ESP/TCS Indicator Light” will blink several times to confirm HSA is off.

Steps 1-7 must be completed within 90 seconds to turn off HSA. Repeat steps 1-7 to re-enable HSA functionality.

### **Electronic Roll Mitigation (ERM)**

The ERM system anticipates the potential for wheel lift by monitoring the driver’s steering wheel input and the speed of the vehicle. When ERM determines that the rate of change of the steering wheel angle and vehicle speed are sufficient to potentially cause wheel lift, it applies the

appropriate brake and may reduce engine power to lessen the chance that wheel lift will occur. ERM will only intervene during very severe or evasive driving maneuvers.

ERM can only reduce the chance of wheel lift occurring during severe or evasive driving maneuvers. It cannot prevent wheel lift due to other factors such as road conditions, leaving the roadway or striking objects or other vehicles.

### **WARNING!**

**Many factors, such as vehicle loading, road conditions and driving conditions, influence the chance that wheel lift or rollover may occur.**

*(Continued)*

**WARNING! (Continued)**

- ERM cannot prevent all wheel lift or rollovers, especially those that involve leaving the roadway or striking objects or other vehicles. Only a safe, attentive, and skillful driver can prevent accidents.
- The capabilities of an ERM-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.

**Electronic Stability Program (ESP)**

The ESP system enhances directional control and stability of the vehicle under various driving conditions. ESP corrects for oversteering or understeering of the vehicle by applying the brake of the appropriate wheel to assist in counteracting the oversteer or understeer condition. Engine power may also be reduced to help the vehicle maintain the desired path.

ESP uses sensors in the vehicle to determine the vehicle path intended by the driver and compares it to the actual path of the vehicle. When the actual path does not match the intended path, ESP applies the brake of the appropriate wheel to assist in counteracting the oversteer or understeer condition.

- Oversteer - when the vehicle is turning more than appropriate for the steering wheel position.
- Understeer - when the vehicle is turning less than appropriate for the steering wheel position.

**ESP/TCS Indicator Light**

The "ESP/TCS Indicator Light" located in the instrument cluster, 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. 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.

### WARNING!

- **ESP (Electronic Stability Program) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase the traction afforded by prevailing road conditions.**
- **ESP cannot prevent accidents, including those resulting from excessive speed in turns, driving on slippery surfaces, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.**
- **The capabilities of an ESP-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**

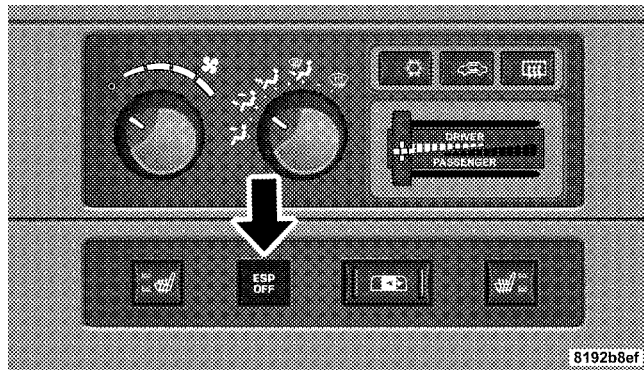
The ESP system has multiple operating modes depending on vehicle type: Two-Wheel Drive (2WD) or Four-Wheel Drive (4WD). Four-wheel drive vehicles may be equipped with either a four-mode position (2WD/4WD LOCK/4WD LOW/Neutral) transfer case or a five-mode position (2WD/4WD AUTO/4WD LOCK/4WD LOW/Neutral) transfer case. If you have a four-wheel drive vehicle, and want to determine which transfer case is on your vehicle and how to operate it, refer to the "Four Wheel Drive Operation" in this section.

**All 2WD vehicles and 4WD vehicles in 2WD, AUTO or 4HI Modes can choose the following ESP operating modes:**

#### *ESP On*

This is the normal operating mode for ESP in 2WD/AUTO/4HI Modes and in 2WD vehicles. Whenever the vehicle is started, or the transfer case (if equipped) is shifted from 4WD LO or Neutral, back to 4WD LOCK or

AUTO, the ESP system will be in this mode. This mode should be used for almost all driving situations. ESP should only be turned to "Partial Off" or "ESP Off" for specific reasons as noted below.



ESP OFF Switch

### *ESP Partial Off*

This mode is entered by momentarily depressing the ESP OFF switch. When in "Partial Off" mode, the TCS portion of ESP, except for the "limited slip" feature described in the TCS section, has been disabled and the "ESP/TCS Indicator Light" will be illuminated. All other stability features of ESP function normally. This mode is intended to be used if the vehicle is in deep snow, sand, or gravel conditions and more wheel spin than ESP would normally allow is required to gain traction. To turn ESP on again, momentarily depress the ESP OFF switch. This will restore the normal "ESP On" mode of operation.

**NOTE:** To improve the vehicle's traction when driving with snow chains, or starting off in deep snow, sand or gravel, it may be desirable to switch to the "Partial Off" mode by pressing the ESP OFF switch. Once the situation requiring ESP to be switched to the "Partial Off" mode is



overcome, turn ESP back on by momentarily depressing the ESP OFF switch. This may be done while the vehicle is in motion.

### WARNING!

**In the “Partial Off” mode, the engine torque reduction and stability features are desensitized. Therefore, the enhanced vehicle stability offered by ESP is unavailable.**

**All 4WD vehicles in Auto and 4HI Modes can also choose the following ESP operating mode. This is the only ESP operating mode in 4LO:**

#### *Full Off*

This mode is intended for off-road use when ESP stability features could inhibit vehicle maneuverability due to trail conditions. This mode is entered by depressing and holding the ESP OFF switch for five seconds when the

vehicle is stopped and the engine is running. After five seconds, the “ESP/TCS Indicator Light” will illuminate and the “ESP OFF” message will appear in the odometer. Press and release the trip odometer button located on the instrument cluster to clear this message.

**NOTE:** The “ESP OFF” message will display and the audible chime will sound when the shift lever is placed into the PARK position from any other position, and then moved out of the PARK position. This will occur even if the message was previously cleared.

In this mode, ESP and TCS, except for the “Limited Slip” feature described in the TCS section, are turned off until the vehicle reaches a speed of 40 mph (64 km/h). At 40 mph (64 km/h), the system returns to “Partial Off” mode, described above. When the vehicle speed drops below 35 mph (56 km/h), the ESP system shuts off. ESP is off at low vehicle speeds so that it will not interfere with off-road driving but ESP function returns to provide

the stability feature at speeds above 40 mph (64 km/h). The “ESP/TCS Indicator Light” will always be illuminated when ESP is off. To turn ESP on again, momentarily depress the ESP OFF switch. This will restore the normal “ESP On” mode of operation.

“ESP Off” is the only operating mode for ESP in 4WD LOW. Whenever the vehicle is started in 4WD LOW or the transfer case (if equipped) is shifted from 4WD LOCK or Neutral, to 4WD LOW, the ESP system will be in this mode.

### **WARNING!**

**With the ESP switched off, the enhanced vehicle stability offered by ESP is unavailable. In an emergency evasive maneuver, the ESP system will not engage to assist in maintaining stability. “ESP Off” mode is intended for off-highway or off-road use, only.**

### **ESP/BAS Warning Light and ESP/TCS Indicator Light**

The malfunction indicator for the ESP is combined with the BAS indicator. The “ESP/BAS Warning Light” and the “ESP/TCS Indicator Light” in the instrument cluster both come on when the ignition switch is turned to the ON position. They should both go out with the engine running. If the “ESP/BAS Warning Light” comes on continuously with the engine running, a malfunction has been detected in either the ESP or BAS system, or both. 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 to have the problem diagnosed and corrected.

#### **NOTE:**

- The “ESP Indicator Light” and the “ESP/BAS Warning Light” come on momentarily each time the ignition switch is turned ON.

- Each time the ignition is turned ON, the ESP System will be ON even if it was turned off previously.
- The ESP Control System will make buzzing or clicking sounds when it is active. This is normal. The sounds will stop when ESP becomes inactive following the maneuver that caused the ESP activation.

### **TSC (Trailer Sway Control)**

The TSC system uses sensors in the vehicle to recognize an excessively swaying trailer and will take the appropriate actions to attempt to stop the sway. The system may reduce engine power and apply the brake of the appropriate wheel(s) to counteract the sway of the trailer. TSC will become active automatically once an excessively swaying trailer is recognized. No driver action is required. Note that TSC cannot stop all trailers from swaying. Always use caution when towing a trailer and follow the trailer tongue weight recommendations. Refer to “Trailer Towing” in Section 5 of this manual for more

information on towing a trailer with your vehicle. When TSC is functioning, the “ESP/TCS Indicator Light” will flash, the engine power may be reduced and you may feel the brakes being applied to individual wheels to attempt to stop the trailer from swaying. TSC is disabled when the ESP system is in the Partial Off or Full Off modes.

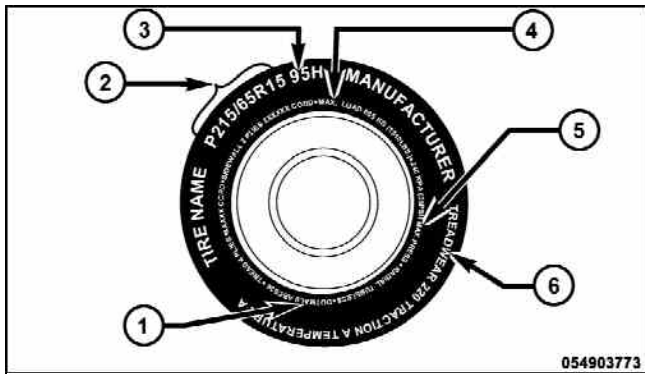
TSC is only active in the default “ESP On” mode. TSC can be disabled by pressing the ESP OFF switch and entering “ESP Partial Off” mode. It is not active in the “ESP Partial Off” or “ESP Off” modes. Please refer to the ESP portion of this section for an explanation of the different ESP operating modes.

#### **WARNING!**

**If TSC activates while driving, slow the vehicle down, stop at the nearest safe location, and adjust the trailer load to eliminate trailer sway.**

## TIRE SAFETY INFORMATION

### Tire Markings



1 — U.S. DOT Safety Standards Code (TIN)

2 — Size Designation

3 — Service Description

4 — Maximum Load

5 — Maximum Pressure

6 — Treadwear, Traction and Temperature Grades

### NOTE:

- P (Passenger) - Metric tire sizing is based on U.S. design standards. P-Metric tires have the letter “P” molded into the sidewall preceding the size designation. Example: P215/65R15 95H.
- European-Metric tire sizing is based on European design standards. Tires designed to this standard have the tire size molded into the sidewall beginning with the section width. The letter “P” is absent from this tire size designation. Example: 215/65R15 96H.
- LT (Light Truck) - Metric tire sizing is based on U.S. design standards. The size designation for LT-Metric tires is the same as for P-Metric tires except for the letters “LT” that are molded into the sidewall preceding the size designation. Example: LT235/85R16.
- Temporary spare tires are high-pressure compact spares designed for temporary emergency use only.

Tires designed to this standard have the letter "T" molded into the sidewall preceding the size designation. Example: T145/80D18 103M.

- High flotation tire sizing is based on U.S. design standards and it begins with the tire diameter molded into the sidewall. Example: 31x10.5 R15 LT.

### Tire Sizing Chart

EXAMPLE:
<b>Size Designation:</b>
<p>P = Passenger car tire size based on U.S. design standards            "...blank..." = Passenger car tire based on European design standards            LT = Light truck tire based on U.S. design standards            T = Temporary spare tire            31 = Overall diameter in inches (in)</p>
<p>215 = Section width in millimeters (mm)</p>
<p>65 = Aspect ratio in percent (%)            — Ratio of section height to section width of tire</p>
<p>10.5 = Section width in inches (in)</p>
<p>R = Construction code            — "R" means radial construction            — "D" means diagonal or bias construction</p>
<p>15 = Rim diameter in inches (in)</p>

**EXAMPLE:****Service Description:**

**95** = Load Index

— A numerical code associated with the maximum load a tire can carry

**H** = Speed Symbol

— A symbol indicating the range of speeds at which a tire can carry a load corresponding to its load index under certain operating conditions

— The maximum speed corresponding to the speed symbol should only be achieved under specified operating conditions (i.e., tire pressure, vehicle loading, road conditions, and posted speed limits)

**Load Identification:**

"...blank..." = Absence of any text on the sidewall of the tire indicates a Standard Load (SL) tire

**Extra Load (XL)** = Extra load (or reinforced) tire

**Light Load** = Light load tire

**C, D, E** = Load range associated with the maximum load a tire can carry at a specified pressure

**Maximum Load** — Maximum load indicates the maximum load this tire is designed to carry

**Maximum Pressure** — Maximum pressure indicates the maximum permissible cold tire inflation pressure for this tire

### Tire Identification Number (TIN)

The TIN may be found on one or both sides of the tire, however, the date code may only be on one side. Tires with white sidewalls will have the full TIN, including the date code, located on the white sidewall side of the tire.

Look for the TIN on the outboard side of black sidewall tires as mounted on the vehicle. If the TIN is not found on the outboard side, then you will find it on the inboard side of the tire.

#### EXAMPLE:

**DOT MA L9 ABCD 0301**

**DOT** = Department of Transportation

— This symbol certifies that the tire is in compliance with the U.S. Department of Transportation tire safety standards and is approved for highway use

**MA** = Code representing the tire manufacturing location (two digits)

**L9** = Code representing the tire size (two digits)

**ABCD** = Code used by the tire manufacturer (one to four digits)

**03** = Number representing the week in which the tire was manufactured (two digits)

—03 means the 3rd week.

**01** = Number representing the year in which the tire was manufactured (two digits)

—01 means the year 2001

— Prior to July 2000, tire manufacturers were only required to have one number to represent the year in which the tire was manufactured. Example: 031 could represent the 3rd week of 1981 or 1991

## Tire Loading and Tire Pressure

### Tire Placard Location

**NOTE:** The proper cold tire inflation pressure is listed on the driver's side B-Pillar.

## Tire and Loading Information Placard

TIRE	FRONT	REAR	SPARE
ORIGINAL TIRE SIZE	P195/70R14	P195/70R14	T125/70D15
COLD TIRE INFLATION PRESSURE	200kPa, 29PSI	200kPa, 29PSI	420kPa, 60PSI

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### Tire and Loading Information Placard

This placard tells you important information about the:

- 1) number of people that can be carried in the vehicle
- 2) total weight your vehicle can carry
- 3) tire size designed for your vehicle
- 4) cold tire inflation pressures for the front, rear, and spare tires.



## Loading

The vehicle maximum load on the tire must not exceed the load carrying capacity of the tire on your vehicle. You will not exceed the tire's load carrying capacity if you adhere to the loading conditions, tire size, and cold tire inflation pressures specified on the Tire and Loading Information placard and in the "Vehicle Loading" section of this manual.

**NOTE:** Under a maximum loaded vehicle condition, gross axle weight ratings (GAWRs) for the front and rear axles must not be exceeded. For further information on GAWRs, vehicle loading, and trailer towing, refer to "Vehicle Loading" in this section.

To determine the maximum loading conditions of your vehicle, locate the statement "The combined weight of occupants and cargo should never exceed XXX lbs or XXX kg" on the Tire and Loading Information placard.

The combined weight of occupants, cargo/luggage and trailer tongue weight (if applicable) should never exceed the weight referenced here.

### *Steps for Determining Correct Load Limit*

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX lbs or XXX kg" on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX lbs or XXX kg.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if "XXX" amount equals 1,400 lbs (635 kg) and there will be five 150 lb (68 kg) passengers in your vehicle, the amount of

available cargo and luggage load capacity is 650 lbs (295 kg) (since  $5 \times 150 = 750$ , and  $1400 - 750 = 650$  lbs [295 kg]).

5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in step 4.

6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

**NOTE:**

- The following table shows examples on how to calculate total load, cargo/luggage, and towing capacities of your vehicle with varying seating configurations and number and size of occupants. This table is for illustration purposes only and may not be accurate for the seating and load carry capacity of your vehicle.
- For the following example, the combined weight of occupants and cargo should never exceed 865 lbs (392 kg).

Occupants			Combined weight of occupants and cargo from Tire Placard	MINUS	Combined Occupant's weight	=	AVAILABLE Cargo/Luggage and Trailer Tongue Weight
TOTAL	FRONT	REAR					
<u>EXAMPLE 1</u>							
5	2	3	↓ 865 lbs	minus	Occupant 1: 200 lbs Occupant 2: 130 lbs Occupant 3: 160 lbs Occupant 4: 100 lbs Occupant 5: 80 lbs TOTAL WEIGHT: 670 lbs 670 lbs	=	↓ 195 lbs
<u>EXAMPLE 2</u>							
3	2	1	865 lbs	minus	Occupant 1: 210 lbs Occupant 2: 180 lbs Occupant 3: 150 lbs TOTAL WEIGHT: 540 lbs 540 lbs	=	325 lbs
<u>EXAMPLE 3</u>							
2	2	0	865 lbs	minus	Occupant 1: 200 lbs Occupant 2: 200 lbs TOTAL WEIGHT: 400 lbs 400 lbs	=	465 lbs

**WARNING!**

Overloading of your tires is dangerous. Overloading can cause tire failure, affect vehicle handling, and increase your stopping distance. Use tires of the recommended load capacity for your vehicle. Never overload them.

**TIRES — GENERAL INFORMATION****Tire Pressure**

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. Three primary areas are affected by improper tire pressure:

**Safety****WARNING!**

- Improperly inflated tires are dangerous and can cause accidents.
- Under-inflation increases tire flexing and can result in tire failure.
- Over-inflation reduces a tire's ability to cushion shock. Objects on the road and chuckholes can cause damage that result in tire failure.
- Unequal tire pressures can cause steering problems. You could lose control of your vehicle.
- Over-inflated or under-inflated tires can affect vehicle handling and can fail suddenly, resulting in loss of vehicle control.

*(Continued)*

**WARNING! (Continued)**

- Unequal tire pressures from one side of the vehicle to the other can cause the vehicle to drift to the right or left.
- Always drive with each tire inflated to the recommended cold tire inflation pressure.

**Economy**

Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life resulting in a need for earlier tire replacement. Under-inflation also increases tire rolling resistance and results in higher fuel consumption.

**Ride Comfort and Vehicle Stability**

Proper tire inflation contributes to a comfortable ride. Over-inflation produces a jarring and uncomfortable ride.

**Tire Inflation Pressures**

The proper cold tire inflation pressure is listed on the driver's side "B" Pillar.

Some vehicles may have Supplemental Tire Pressure Information for vehicle loads that are less than the maximum loaded vehicle condition. These pressure conditions will be found in the "Supplemental Tire Pressure Information" section of this manual.

The pressure should be checked and adjusted as well as inspecting for signs of tire wear or visible damage at least once a month. Use a good quality pocket-type gauge to check tire pressure. DO NOT make a visual judgement when determining proper inflation. Radial tires may look properly inflated even when they are under-inflated.

**CAUTION!**

**After inspecting or adjusting the tire pressure, always reinstall the valve stem cap. This will prevent moisture and dirt from entering the valve stem, which could damage the valve stem.**

Inflation pressures specified on the placard are always “cold tire inflation pressure.” Cold tire inflation pressure is defined as the tire pressure after the vehicle has not been driven for at least three hours, or driven less than 1 mile (1.6 km) after a three hour period. The cold tire inflation pressure must not exceed the maximum inflation pressure molded into the tire sidewall.

Check tire pressures more often if subject to a wide range of outdoor temperatures, as tire pressures vary with temperature changes.

Tire pressures change by approximately 1 psi (7 kPa) per 12°F (7°C) of air temperature change. Keep this in mind when checking tire pressure inside a garage, especially in the Winter.

Example: If garage temperature = 68°F (20°C) and the outside temperature = 32°F (0°C) then the cold tire inflation pressure should be increased by 3 psi (21 kPa), which equals 1 psi (7 kPa) for every 12°F (7°C) for this outside temperature condition.

Tire pressure may increase from 2 to 6 psi (13 to 40 kPa) during operation. DO NOT reduce this normal pressure build up or your tire pressure will be too low.

**Tire Pressures for High Speed Operation**

The manufacturer advocates driving at safe speeds within posted speed limits. Where speed limits or conditions are such that the vehicle can be driven at high speeds, maintaining correct tire inflation pressure is very important. Increased tire pressure and reduced vehicle

loading may be required for high-speed vehicle operation. Refer to original equipment or an authorized tire dealer for recommended safe operating speeds, loading and cold tire inflation pressures.

**WARNING!**

High speed driving with your vehicle under maximum load is dangerous. The added strain on your tires could cause them to fail. You could have a serious accident. Do not drive a vehicle loaded to the maximum capacity at continuous speeds above 75 mph (120 km/h).

**Radial Ply Tires****WARNING!**

Combining radial ply tires with other types of tires on your vehicle will cause your vehicle to handle poorly. The instability could cause an accident. Always use radial ply tires in sets of four (or six, in case of trucks with dual rear wheels). Never combine them with other types of tires.

Cuts and punctures in radial tires are repairable only in the tread area because of sidewall flexing. Consult your authorized tire dealer for radial tire repairs.

**Tire Spinning**

When stuck in mud, sand, snow, or ice conditions, DO NOT spin your vehicle's wheels faster than 30 mph (48 km/h) or for longer than 30 seconds continuously without stopping when you are stuck.

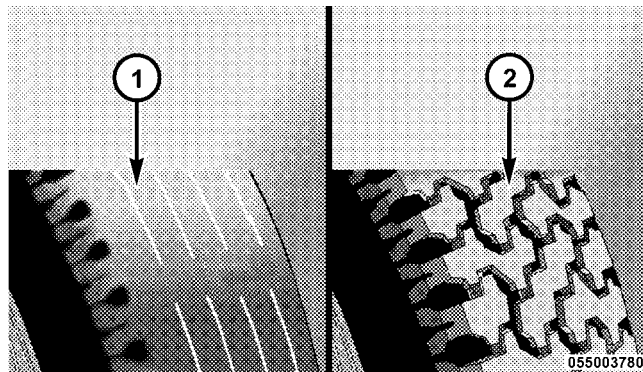
For additional information, refer to “Freeing A Stuck Vehicle” in Section 6.

### WARNING!

Fast spinning tires can be dangerous. Forces generated by excessive wheel speeds may cause tire damage or failure. A tire could explode and injure someone. **DO NOT** spin your vehicle’s wheels faster than 30 mph (48 km/h) or for more than 30 seconds continuously when you are stuck, and do not let anyone near a spinning wheel, no matter what the speed.

### Tread Wear Indicators

Tread wear indicators are in the original equipment tires to help you in determining when your tires should be replaced.



- 1 — Worn Tire  
2 — New Tire

These indicators are molded into the bottom of the tread grooves. They will appear as bands when the tread depth becomes 1/16 in (2 mm). When the tread is worn to the tread wear indicators, the tire should be replaced.



## Life of Tire

The service life of a tire is dependent upon varying factors including, but not limited to:

- Driving style
- Tire pressure
- Distance driven

### WARNING!

**Tires and the spare tire should be replaced after six years, regardless of the remaining tread. Failure to follow this warning can result in sudden tire failure. You could lose control and have an accident resulting in serious injury or death.**

Keep dismounted tires in a cool, dry place with as little exposure to light as possible. Protect tires from contact with oil, grease, and gasoline.

## Replacement Tires

The tires on your new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct cold tire inflation pressure. The manufacturer strongly recommends that you use tires equivalent to the originals in size, quality and performance when replacement is needed. (Refer to the paragraph on “Tread Wear Indicators”). Refer to the “Tire and Loading Information” placard for the size designation of your tire. The service description and load identification will be found on the original equipment tire. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your vehicle. We recommend that you contact your original equipment or an authorized tire dealer with any questions you may have on tire specifications or capability.

**WARNING!**

- **DO NOT** use a tire, wheel size or rating other than that specified for your vehicle. Some combinations of unapproved tires and wheels may change suspension dimensions and performance characteristics, resulting in changes to steering, handling, and braking of your vehicle. This can cause unpredictable handling and stress to steering and suspension components. You could lose control and have an accident resulting in serious injury or death. Use only the tire and wheel sizes with load ratings approved for your vehicle.
- **NEVER** use a tire with a smaller load index or capacity, other than what was originally equipped on your vehicle. Using a tire with a smaller load index could result in tire overloading and failure. You could lose control and have an accident.

*(Continued)*

**WARNING! (Continued)**

- Failure to equip your vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.

**CAUTION!**

Replacing original tires with tires of a different size may result in false speedometer and odometer readings.

**SUPPLEMENTAL TIRE PRESSURE INFORMATION — IF EQUIPPED**

A light load vehicle condition is defined as two passengers [150 lbs (68 kg) each] plus 200 lbs (91 kg) of cargo. Cold tire inflation pressures for a lightly loaded vehicle will be found on the face of the driver's door.

## TIRE CHAINS

Use “Class U” chains on 2500/3500 model trucks, or other traction aids that meet SAE Type “U” specifications.

**NOTE:** Chains must be the proper size for the vehicle, as recommended by the chain manufacturer.

### CAUTION!

To avoid damage to your vehicle, tires or chains, observe the following precautions:

- Because of limited chain clearance between tires and other suspension components, it is important that only chains in good condition are used. Broken chains can cause serious vehicle damage. Stop the vehicle immediately if noise occurs that could suggest chain breakage. Remove the damaged parts of the chain before further use.

*(Continued)*

### CAUTION! (Continued)

- Install chains as tightly as possible and then retighten after driving about 0.5 mile (0.8 km).
- Do not exceed 45 mph (72 km/h).
- Drive cautiously and avoid severe turns and large bumps, especially with a loaded vehicle.
- Do not install tire chains on front wheels of 4x2 vehicles.
- Do not drive for a prolonged period on dry pavement.
- Observe the tire chain manufacturer’s instructions on method of installation, operating speed, and conditions for usage. Always use the lower suggested operating speed of the chain manufacturer if different than the speed recommended by the manufacturer.

These cautions apply to all chain traction devices, including link and cable (radial) chains.

Tire chain use is permitted only on the rear tires of 4X2 model trucks.

**NOTE:**

- The use of class “U” chains is permitted on the front and rear of 4X4, 2500 model trucks with LT245/70R17E tires.
- The use of class “U” chains is permitted on the front and rear of 4X4, 3500 model trucks with Dual Rear Wheels and LT235/80R17E tires.
- On 4X2 2500/3500 model trucks, class “U” snow chains are permitted on the rear wheels only of vehicles equipped with LT245/70R17, LT265/70R17, and LT235/80R17 size tires.

- On 4x4 2500/3500 SRW (Single Rear Wheel) model trucks, class “U” snow chains are permitted on the rear wheels only of vehicles equipped with LT265/70R17E.

**CAUTION!**

**Do not use tire chains on 4x4 model trucks equipped with P265/70R17, LT275/70R17, P275/60R20, tires. There may not be adequate clearance for the chains and you are risking structural or body damage to your vehicle. Do not use tire chains on the 4X2 front wheels of 2500/3500 SRW (Single Rear Wheels) equipped with LT245/70R17, LT265/70R17 LT235/80R17 tires, or 4X4 front wheels equipped with LT265/70R17E. There may not be adequate clearance for the chains and you are risking structural or body damage to your vehicle.**

## SNOW TIRES

Snow tires should be of the same size and type construction as the front tires. Consult the manufacturer of the snow tire to determine any maximum vehicle speed requirement associated with the tire. These tires should always be operated at the vehicle maximum capacity inflation pressures under any load condition.

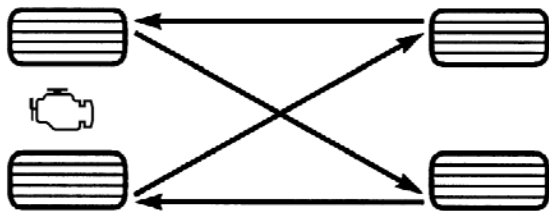
While studded tires improve performance on ice, skid and traction capability on wet or dry surfaces may be poorer than that of non-studded tires. Some states prohibit studded tires; therefore, local laws should be checked before using these tire types.

## TIRE ROTATION RECOMMENDATIONS

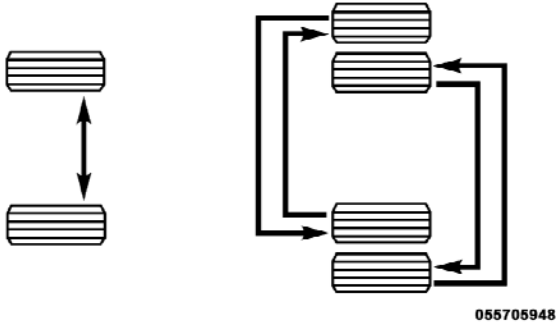
Tires on the front and rear axles of vehicles operate at different loads and perform different steering, driving, and braking functions. For these reasons, they wear at unequal rates and develop irregular wear patterns. These effects can be reduced by timely rotation of tires. The benefits of rotation are especially worthwhile with aggressive tread designs such as those on ON/OFF Road type tires. Rotation will increase tread life, help to maintain mud, snow, and wet traction levels, and contribute to a smooth, quiet ride.

Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals. More frequent rotation is permissible if desired. The reasons for any rapid or unusual wear should be corrected prior to rotation being performed.

**NOTE:** On Canadian vehicles only, if your vehicle is equipped with All-Season type tires on the front and ON/OFF Road type tires mounted on the rear, do not use a front-to-back rotation pattern. Instead, rotate your tires side-to-side at the recommended intervals.



## Dual Rear Wheels



The tires used on dual wheel assemblies should be matched for wear to prevent overloading one tire in a set. To check if tires are even, lay a straight edge across all four tires. The straight edge should touch all the tires.

### CAUTION!

3500 Dual Rear Tires have only one approved direction of rotation. This is to accommodate the asymmetrical design (tread pattern) of the ON/OFF road tire and the use of Outline White Letter (OWL) tires.

- When replacing a flat, the spare tire may have to be remounted on the rim, or installed at a different location, to maintain the correct placement of the tire on the wheel relative to the tire/wheel position on the truck. For example, if the spare is used to replace an outer rear tire it will have to be remounted on the rim so that the wheel is dished inward. That way the tread design of asymmetrical tires and the white writing of the OWL tires will maintain proper position.

## **TIRE PRESSURE MONITOR SYSTEM (TPMS) — IF EQUIPPED**

The Tire Pressure Monitoring System (TPMS) will warn the driver of a low tire pressure based on the vehicle recommended cold tire inflation placard pressure. The placard pressure is defined on the Tire and Loading Information label. The Tire and Loading Information label is located on the drivers side B-pillar. Vehicles equipped to be operated in either the “max load inflation pressure” condition described on the Tire and Loading Information label or the alternative “light load inflation pressure” condition described on the Supplemental Tire Pressure Information label, may also be equipped with a “Tire Light Load Inflation” switch to choose the appropriate TPMS low pressure warning threshold levels based upon the vehicle load condition. The Supplemental Tire Pressure Information label is located on the rear face of the driver door. Operation of the “Tire Light Load Inflation” switch is described later in this manual section.

The tire pressure will vary with temperature by approximately 1 psi (6.9 kPa) for every 12°F (6.5°C). This means that when the outside temperature decreases, the tire pressure will decrease. Tire pressure should always be set based on cold inflation tire pressure. This is defined as the tire pressure after a vehicle has not been driven for more than three hours, or driven less than 1 mile (1.6 km) after a three-hour period. For information on how to properly inflate the vehicle’s tires, refer to “Tire Pressure” under “Tires – General Information” in this section. The tire pressure will also increase as the vehicle is driven - this is normal and there should be no adjustment for this increased pressure.

The TPM System will warn the driver of a low tire pressure if the tire pressure falls below the low pressure warning threshold for any reason, including low temperature effects, or natural pressure loss through the tire.



The TPM System will continue to warn the driver of low tire pressure as long as the condition exists, and will not turn off until the tire pressure is at or above recommended cold placard pressure. Once the low tire pressure warning has been illuminated, the tire pressure must be increased to the recommended cold placard pressure in order for the TPMS warning light to be turned off. The system will automatically update and the TPMS warning light will extinguish once the updated tire pressures have been received. The vehicle may need to be driven for up to 20 minutes above 15 mph (25 km/h) to receive this information.

As an example, assume your vehicle has a recommended cold tire inflation placard pressure (parked for more than 3 hours) of 35 psi (241 kPa). If the ambient temperature is 68°F (20°C) and the measured tire pressure is 30 psi (207 kPa), a temperature drop to 20°F (-7°C) will decrease the tire pressure to approximately 26 psi (179 kPa). This tire pressure is sufficiently low enough to turn ON the “Tire Pressure Monitoring Telltale Light.” Driving the vehicle may cause the tire pressure to rise to approximately 30 psi (207 kPa), but the “Tire Pressure Monitoring Telltale Light” will still be ON. In this situation, the “Tire Pressure Monitoring Telltale Light” will turn OFF only after the tires have been inflated to the vehicle’s recommended cold tire placard pressure value.

**CAUTION!**

- The TPMS has been optimized for the original equipment tires and wheels. TPMS pressures 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. After-market wheels can cause sensor damage. Do not use aftermarket tire sealants or balance beads if your vehicle is equipped with a TPMS, as damage to the sensors may result.
- After inspecting or adjusting the tire pressure always reinstall the valve stem cap. This will prevent moisture and dirt from entering the valve stem, which could damage the Tire Pressure Monitoring Sensor.

**NOTE:**

- The TPMS is not intended to replace normal tire care and maintenance, nor to provide warning of a tire failure or condition.
- The TPMS should not be used as a tire pressure gauge while adjusting your tire 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.
- 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 "Tire Pressure Monitoring Telltale Light."
- Seasonal temperature changes will affect tire pressure, and the TPM system will monitor the actual tire pressure in the tire.

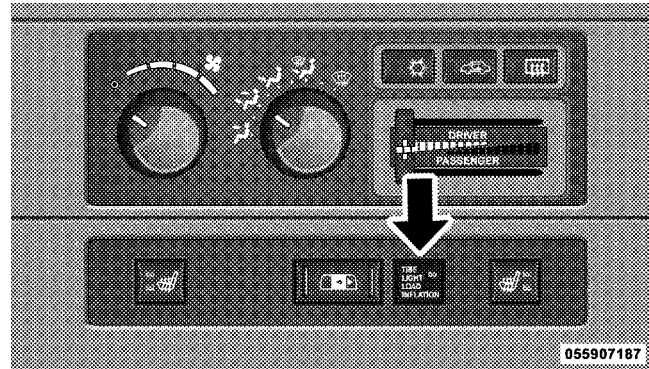
## Tire Pressure Monitor System (TPMS) Tire Light Load Inflation Switch Description – If Equipped

### WARNING!

Never operate your vehicle with the TPMS and tire pressures set to the Light Load Inflation Pressure settings if carrying more than two occupants (150 lbs [68 kg] each) plus 200 pounds (91 kg) of cargo. The vehicle “Light Load Definition” is found in the Supplemental Tire Pressure Information Label which is located on the rear face of the driver door. Failure to do so may cause you to lose control resulting in an accident, causing serious or fatal injury.

The TPMS tire light load inflation switch will allow the driver to switch between the max load inflation pressure (cold) low pressure warning threshold and the light load inflation pressure (cold) low pressure warning threshold depending on the vehicle’s load condition. The Tire and Loading Information label defines the recommended front


and rear cold tire inflation pressures for the vehicle when operating in the Max Load condition. A Supplemental Tire Pressure Information label is also available defining Light Load tire inflation pressures when operating in the Light Load condition. When the tire light load inflation switch LED is ON, the TPMS is using the light load inflation pressure (cold) low inflation warning thresholds.



Tire Light Load Inflation Switch

## Tire Light Load Inflation Switch Operation – If Equipped

- This vehicle may have different recommended tire pressure values between the front and rear tires as shown in both the Tire Loading Information Label and the Supplemental Tire Pressure Information Label. It is also equipped to be driven with tire pressures appropriate to either a Light Load condition or the vehicle Max Load condition.
- The tire light load inflation switch will allow the driver to change between the max load inflation pressure (cold) low pressure warning threshold and the light load inflation pressure (cold) low pressure warning threshold depending on the vehicle's load condition. Refer to the "Supplemental Tire Pressure Information" label for the vehicle's Light Load inflation pressures and "Tire and Loading Information" label for the vehicle's Max Load inflation pressures.

<b>SUPPLEMENTAL TIRE PRESSURE INFORMATION</b>		
<b>FOR LIGHT LOAD AND MAX LOAD CONDITIONS</b>		
LIGHT LOAD DEFINITION: 2 OCCUPANTS (150 LBS. EACH) PLUS 500 LBS. CARGO		
MAX LOAD DEFINITION: AS DEFINED ON DRIVERS SIDE B · PILLAR PLACARD		
	FRONT	REAR
LIGHT LOAD INFLATION PRESSURE (COLD)	345 kPa, 50 PSI	280 kPa, 40 PSI
MAX LOAD INFLATION PRESSURE (COLD)	410 kPa, 60 PSI	485 kPa, 70 PSI
TIRE SIZE	LT265/70R17E	LT265/70R17E
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION 		5Q269494

81c57c10

### Example Supplemental Tire Pressure Label

To switch from the max load inflation pressure (cold) low pressure warning threshold to the light load inflation pressure (cold) low pressure warning threshold, begin by placing the ignition switch in the RUN position. Next, lower all four road tire pressures to the Light Load Inflation Pressure values as listed on the Supplemental

Tire Pressure Information label. The Supplemental Tire Pressure Information label is located on the rear face of the driver door. Use an accurate tire gauge to check the tire pressures when lowering all four tire pressures. After all four tire pressures have been lowered to the Light Load inflation pressures, press the tire light load inflation switch. If the tire light load inflation switch's amber colored LED turns ON, the TPMS is using the light load inflation pressure (cold) low pressure warning thresholds.

If the tire light load inflation switch amber colored LED flashes on and off for 10 seconds, after all four tire pressures have been lowered to the Light Load inflation pressures, the pressure in any one of the four tires may not be at the light load inflation pressure (cold) values as indicated for the Light Load condition as defined on the Supplemental Tire Pressure Information label located on

the rear face of the driver door. Using an accurate tire pressure gauge, re-check the tire pressures for the light load inflation pressure (cold) value.

### **WARNING!**

**It is the driver's responsibility to change to the max load inflation pressure (cold) low pressure warning threshold condition when not driving in the light load condition as defined as two occupants (150 lbs [68 kg] each) plus 200 pounds (91 kg) of cargo. The vehicle "Light Load Definition" is found in the Supplemental Tire Pressure Information label located on the rear face of the driver door. Failure to do so may cause you to lose control resulting in an accident, causing serious or fatal injury.**

To switch back to the max load inflation pressure (cold) low pressure warning threshold, press the tire light load inflation switch. It is not necessary to first fill the tires to

the max load inflation pressure (cold) values to switch the TPMS system to the max load inflation pressure (cold) low pressure warning threshold. If after pressing the tire light load inflation switch, and tire pressures are below the max load inflation pressure (cold) low pressure warning thresholds, the TPMS low pressure warning telltale light (located in the instrument cluster) will turn ON and a chime will sound. The tire pressures are now required to be inflated to the max load inflation pressure (cold) values described on the Tire and Loading Information label. The Tire and Loading Information label is located on the drivers side B-pillar. If the tire light load inflation switch LED turns OFF, the TPMS has been reset and the TPMS is using the max load inflation pressure (cold) low pressure warning thresholds.

### **Tire Pressure Monitor System Components**

The Tire Pressure Monitor System (TPMS) uses wireless technology with wheel rim mounted electronic sensors to

monitor tire pressure levels. Sensors, mounted to each wheel as part of the valve stem, transmit tire pressure readings to the Receiver Module.

**NOTE:** It is particularly important, for you to check the tire pressure in all of your tires regularly and to maintain the proper pressure.

The Tire Pressure Monitoring System (TPMS) consists of the following components:

- Receiver Module
- Four Wheel Sensors
- Two Trigger Modules (mounted in the front wheel-wells)
- Tire Light Load Inflation Switch (located in the instrument panel)
- Tire Pressure Monitoring Telltale Light

### Tire Pressure Monitoring Low Pressure Warnings



The “Tire Pressure Monitoring Telltale Light” will illuminate in the instrument cluster, and an audible chime will be activated when one or more of the four active road tire pressures are low. Should this occur, you should stop as soon as possible, check the inflation pressure of each tire on your vehicle and inflate each tire to the vehicle’s recommended cold placard pressure value. The system will automatically update and the “Tire Pressure Monitoring Telltale Light” will extinguish once the updated tire pressures have been received. The vehicle may need to be driven for up to 20 minutes above 15 mph (25 km/h) to receive this information.

### Check TPMS Warnings

The “Tire Pressure Monitoring Telltale Light” (located in the instrument cluster) will flash on and off for 75 seconds and will remain on solid when a system fault is detected. The system fault will also sound a chime. If the

ignition key is cycled, this sequence will repeat, providing the system fault still exists. A system fault can occur by any of the following scenarios:

1. Signal interference due to electronic devices or driving next to facilities emitting the same Radio Frequencies as the TPM sensors.
2. Installing aftermarket window tinting that affects radio wave signals.
3. Accumulation of snow or ice around the wheels or wheel housings.
4. Using tire chains on the vehicle.
5. Using wheels/tires not equipped with TPM sensors.
6. Loss of communication with the trigger modules or tire pressure monitoring sensors.

**NOTE: Your vehicle is equipped with a non-matching full size spare wheel and tire assembly.**

1. This spare tire does not have a tire pressure monitoring sensor. Therefore, the TPMS will not monitor the tire pressure in the spare tire.
2. If you install the full size spare tire in place of a road tire that has a pressure below the low-pressure warning limit, upon the next ignition key cycle, a chime will sound and the “TPM Telltale Light” will still turn ON due to the low tire.
3. However, after driving the vehicle for up to 20 minutes above 15 mph (25 km/h), the “TPM Telltale Light” will flash on and off for 75 seconds and then remain on solid.
4. For each subsequent ignition key cycle, a chime will sound and the “TPM Telltale Light” will flash on and off for 75 seconds and then remain on solid.

5. Once you repair or replace the original road tire, and reinstall it on the vehicle in place of the full size spare tire, the TPMS will update automatically and the “TPM Telltale Light” will turn OFF, as long as no tire pressure is below the low-pressure warning limit in any of the four active road tires. The vehicle may need to be driven for up to 20 minutes above 15 mph (25 km/h) in order for the TPMS to receive this information.

### **General Information**

This device complies with part 15 of the FCC rules and RSS 210 of Industry Canada. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.



The tire pressure sensors are covered under one of the following licenses:

- United States . . . . . KR5S120123
- Canada . . . . . 2671-S120123

**FUEL REQUIREMENTS**



The 5.7L engine is designed to meet all emissions regulations and provide satisfactory fuel economy and performance when using high-quality unleaded gasoline having an octane range of 87 to 89. The manufacturer recommends the use of 89 octane

for optimum performance. The use of premium gasoline is not recommended, as it will not provide any benefit over regular gasoline in these engines.

Light spark knock at low engine speeds is not harmful to your engine. However, continued heavy spark knock at high speeds can cause damage and immediate service is required.

Poor quality gasoline can cause problems such as hard starting, stalling and hesitations. If you experience these symptoms, try another brand of “regular” gasoline before considering service for the vehicle.

Over 40 auto manufacturers worldwide have issued and endorsed consistent gasoline specifications (the Worldwide Fuel Charter, WWFC) to define fuel properties necessary to deliver enhanced emissions, performance and durability for your vehicle. We recommend the use of gasolines that meet the WWFC specifications if they are available.

**Reformulated Gasoline**

Many areas of the country require the use of cleaner burning gasoline referred to as “Reformulated Gasoline” Reformulated gasolines contain oxygenates, and are specifically blended to reduce vehicle emissions and improve air quality.

The manufacturer supports the use of reformulated gasolines. Properly-blended reformulated gasolines will provide excellent performance and durability of engine and fuel system components.

### **Gasoline/Oxygenate Blends**

Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol, MTBE, and ETBE. Oxygenates are required in some areas of the country during the Winter months to reduce carbon monoxide emissions. Fuels blended with these oxygenates may be used in your vehicle.

#### **CAUTION!**

**DO NOT use gasolines containing Methanol or E85 Ethanol. Use of these blends may result in starting and drivability problems and may damage critical fuel system components.**

Problems that result from using methanol/gasoline or E85 Ethanol blends are not the responsibility of the manufacturer. While MTBE is an oxygenate made from Methanol, it does not have the negative effects of Methanol.

### **E-85 Usage In Non-Flex Fuel Vehicles**

Non-FFV vehicles are compatible with gasoline containing 10% ethanol (E10). Gasoline with higher ethanol content may void the vehicle's warranty.

If a Non-FFV vehicle is inadvertently fueled with E-85 fuel, the engine will have some or all of these symptoms:

- operate in a lean mode
- OBD II "Malfunction Indicator Light" on
- poor engine performance
- poor cold start and cold drivability
- increased risk for fuel system component corrosion

To fix a Non-FFV vehicle inadvertently fueled once with E-85 perform the following:

- drain the fuel tank (see your authorized dealer)
- change the engine oil and oil filter
- disconnect and reconnect the battery to reset the engine controller memory

More extensive repairs will be required for prolonged exposure to E-85 fuel.

### **MMT In Gasoline**

MMT is a manganese containing metallic additive that is blended into some gasoline to increase octane. Gasoline blended with MMT provides no performance advantage beyond gasoline of the same octane number without MMT. Gasoline blended with MMT reduces spark plug

life and reduces emission system performance in some vehicles. The manufacturer recommends that gasoline without MMT be used in your vehicle. The MMT content of gasoline may not be indicated on the gasoline pump, therefore, you should ask your gasoline retailer whether or not the gasoline contains MMT. It is even more important to look for gasolines without MMT in Canada, because MMT can be used at levels higher than those allowed in the United States. MMT is prohibited in Federal and California reformulated gasoline.

### **Materials Added To Fuel**

All gasolines sold in the United States are required to contain effective detergent additives. Use of additional detergents or other additives is not needed under normal conditions and would result in unnecessary cost. Therefore, you should not have to add anything to the fuel.

## Fuel System Cautions

### CAUTION!

Follow these guidelines to maintain your vehicle's performance:

- The use of leaded gas is prohibited by Federal law. Using leaded gasoline can impair engine performance, damage the emission control system.
- An out-of-tune engine, or certain fuel or ignition malfunctions, can cause the catalytic converter to overheat. If you notice a pungent burning odor or some light smoke, your engine may be out of tune or malfunctioning and may require immediate service. Contact your authorized dealer for service assistance.

- When pulling a heavy load or driving a fully-loaded vehicle when the humidity is low and the temperature is high, use a premium unleaded fuel to help prevent spark knock. If spark knock persists, lighten the load, or engine piston damage may result.
- The use of fuel additives which are now being sold as octane enhancers is not recommended. Many of these products contain high concentrations of methanol. Fuel system damage or vehicle performance problems resulting from the use of such fuels or additives is not the responsibility of the manufacturer.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

## Carbon Monoxide Warnings

### WARNING!

**Carbon monoxide (CO) in exhaust gases is deadly. Follow the precautions below to prevent carbon monoxide poisoning:**

- Do not inhale exhaust gases. They contain carbon monoxide, a colorless and odorless gas which can kill. Never run the engine in a closed area, such as a garage, and never sit in a parked vehicle with the engine running for an extended period. If the vehicle is stopped in an open area with the engine running for more than a short period, adjust the ventilation system to force fresh, outside air into the vehicle.
- Guard against carbon monoxide with proper maintenance. Have the exhaust system inspected every time

the vehicle is raised. Have any abnormal conditions repaired promptly. Until repaired, drive with all side windows fully open.

### ADDING FUEL

The fuel tank filler tube has a restricting door about 2 in (50 mm) inside the opening. If using a portable fuel container, it should have a flexible nozzle long enough to force open the restricting door.

### CAUTION!

- **Damage to the fuel system or emissions control system could result from using an improper fuel tank filler tube cap (gas cap). A poorly fitting cap could let impurities into the fuel system. Also, a poorly-fitted aftermarket cap can cause the MIL (Malfunction Indicator Light) to illuminate due to fuel vapors escaping from the system.**

*(Continued)*

**CAUTION! (Continued)**

- A poorly fitting gas cap may cause the MIL to turn on.
- To avoid fuel spillage and overfilling, do not “top off” the fuel tank after filling.

**NOTE:** When the fuel nozzle “clicks” or shuts off the fuel tank is full.

**WARNING!**

- Never have any smoking materials lit in or near the vehicle when the gas cap is removed or the tank filled.
- Never add fuel to the vehicle when the engine is running. This is in violation of most state and federal fire regulations and will cause the MIL to turn on.

**NOTE:** Tighten the gas cap 1/4 turn until you hear one click. This is an indication that the cap is properly tightened.

If the gas cap is not tightened properly, the Malfunction Indicator Light will come on, Be sure the gas cap is tightened every time the vehicle is refueled.

**WARNING!**

A fire may result if gasoline is pumped into a portable container that is inside of a vehicle. You could be burned. Always place gas containers on the ground while filling.

## Loose Fuel Filler Cap (Gas Cap) Message

If the vehicle's diagnostic system determines that the fuel filler cap is loose, improperly installed or damaged, a GASCAP 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.

## VEHICLE LOADING

### Certification Label

As required by National Highway Traffic Safety Administration regulations, your vehicle has a certification label affixed to the driver's side door or pillar.

This label contains the month and year of manufacture, Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR) front and rear, and Vehicle Identification Number (VIN). A Month-Day-Hour (MDH) number is included on this label and indicates the Month, Day and Hour of manufacture. The bar code that appears on the bottom of the label is your Vehicle Identification Number (VIN).

### Gross Vehicle Weight Rating (GVWR)

The GVWR is the total permissible weight of your vehicle including driver, passengers, vehicle, options and cargo. The label also specifies maximum capacities of front and rear axle systems (GAWR). Total load must be limited so GVWR and front and rear GAWR are not exceeded.

### Payload

The payload of a vehicle is defined as the allowable load weight a truck can carry, including the weight of the driver, all passengers, options and cargo.

**Gross Axle Weight Rating (GAWR)**

The GAWR is the maximum permissible load on the front and rear axles. The load must be distributed in the cargo area so that the GAWR of each axle is not exceeded.

Each axle GAWR is determined by the components in the system with the lowest load carrying capacity (axle, springs, tires or wheels). Heavier axles or suspension components sometimes specified by purchasers for increased durability does not necessarily increase the vehicle's GVWR.

**Tire Size**

The tire size on the Label represents the actual tire size on your vehicle. Replacement tires must be equal to the load capacity of this tire size.

**Rim Size**

This is the rim size that is appropriate for the tire size listed.

**Inflation Pressure**

This is the cold tire inflation pressure for your vehicle for all loading conditions up to full GAWR.

**Curb Weight**

The curb weight of a vehicle is defined as the total weight of the vehicle with all fluids, including vehicle fuel, at full capacity conditions, and with no occupants or cargo loaded into the vehicle. The front and rear curb weight values are determined by weighing your vehicle on a commercial scale before any occupants or cargo are added.

**Loading**

The actual total weight and the weight of the front and rear of your vehicle at the ground can best be determined by weighing it when it is loaded and ready for operation.

The entire vehicle should first be weighed on a commercial scale to insure that the GVWR has not been exceeded. The weight on the front and rear of the vehicle should



then be determined separately to be sure that the load is properly distributed over front and rear axle. Weighing the vehicle may show that the GAWR of either the front or rear axles has been exceeded but the total load is within the specified GVWR. If so, weight must be shifted from front to rear or rear to front as appropriate until the specified weight limitations are met. Store the heavier items down low and be sure that the weight is distributed equally. Stow all loose items securely before driving.

Improper weight distributions can have an adverse effect on the way your vehicle steers and handles and the way the brakes operate.

### CAUTION!

**Do not load your vehicle any heavier than the GVWR or the maximum front and rear GAWR. If you do, parts on your vehicle can break, or it can change the way your vehicle handles. This could cause you to lose control. Also overloading can shorten the life of your vehicle.**

### TRAILER TOWING

In this section you will find safety tips and information on limits to the type of towing you can reasonably do with your vehicle. Before towing a trailer carefully review this information to tow your load as efficiently and safely as possible.

To maintain warranty coverage, follow the requirements and recommendations in this manual concerning vehicles used for trailer towing.

### Common Towing Definitions

The following trailer towing related definitions will assist you in understanding the following information:

#### Gross Vehicle Weight Rating (GVWR)

The GVWR is the total allowable weight of your vehicle. This includes driver, passengers, cargo and tongue weight. The total load must be limited so that you do not exceed the GVWR.

#### Gross Trailer Weight (GTW)

The GTW is the weight of the trailer plus the weight of all cargo, consumables and equipment (permanent or temporary) loaded in or on the trailer in its "loaded and ready for operation" condition. The recommended way to measure GTW is to put your fully loaded trailer on a vehicle scale. The entire weight of the trailer must be supported by the scale.

#### Gross Combination Weight Rating (GCWR)

The GCWR is the total permissible weight of your vehicle and trailer when weighed in combination.

**NOTE:** The GCWR rating includes a 150 lbs (68 kg) allowance for the presence of a driver.

#### Gross Axle Weight Rating (GAWR)

The GAWR is the maximum capacity of the front and rear axles. Distribute the load over the front and rear axles evenly. Make sure that you do not exceed either front or rear GAWR.

### WARNING!

**It is important that you do not exceed the maximum front or rear GAWR. A dangerous driving condition can result if either rating is exceeded. You could lose control of the vehicle and have an accident.**

### **Tongue Weight (TW)**

The tongue weight is the downward force exerted on the hitch ball by the trailer. In most cases it should not be less than 10% or more than 15% of the trailer load. You must consider this as part of the load on your vehicle.

### **Frontal Area**

The frontal area is the maximum height and maximum width of the front of a trailer.

### **Trailer Sway Control**

The trailer sway control is a telescoping link that can be installed between the hitch receiver and the trailer tongue that typically provides adjustable friction associated with the telescoping motion to dampen any unwanted trailer swaying motions while traveling.

### **Weight-Carrying Hitch**

A weight-carrying hitch supports the trailer tongue weight, just as if it were luggage located at a hitch ball or some other connecting point of the truck. These kind of

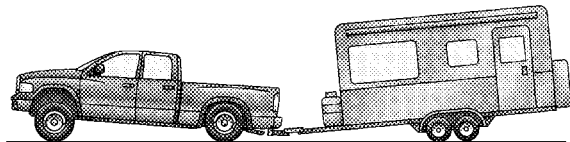
hitches are the most popular on the market today and they're commonly used to tow small- and medium-sized trailers.

### **Weight-Distributing Hitch**

A weight-distributing system works by applying leverage through spring (load) bars. They are typically used for heavier loads, to distribute trailer tongue weight to the tow vehicle's front axle and the trailer axle(s). When used in accordance with the manufacturers' directions, it provides for a more level ride, offering more consistent steering and brake control thereby enhancing towing safety. The addition of a friction / hydraulic sway control also dampens sway caused by traffic and crosswinds and contributes positively to tow vehicle and trailer stability. Trailer sway control and a weight distributing (load equalizing) hitch are recommended for heavier Tongue Weights (TW) and may be required depending on Vehicle and Trailer configuration / loading to comply with gross axle weight rating (GAWR) requirements.

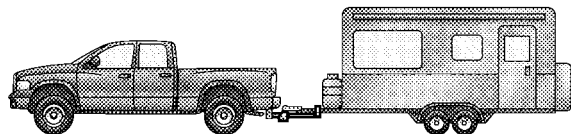
**WARNING!**

- An improperly adjusted Weight Distributing Hitch system may reduce handling, stability, braking performance, and could result in an accident.
- Weight Distributing Systems may not be compatible with Surge Brake Couplers. Consult with your hitch and trailer manufacturer or a reputable Recreational Vehicle dealer for additional information.



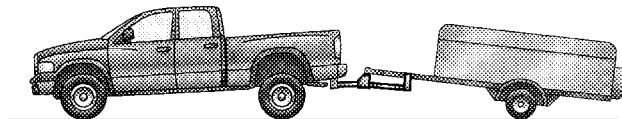
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**EXAMPLE — Without Weight-Distributing Hitch  
(Incorrect)**



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**EXAMPLE — With Weight-Distributing Hitch (Correct)**



057003768

**EXAMPLE — Improper Adjustment of Weight-Distributing Hitch (Incorrect)**

### Fifth-Wheel Hitch

A special high platform with a coupling that mounts over the rear axle of the tow vehicle in the truck bed. Connects a vehicle and fifth-wheel trailer with a coupling king pin.

### Gooseneck Hitch

The gooseneck hitch employs a pivoted coupling arm which attaches to a ball mounted in the bed of a pickup truck. The coupling arm connects to the hitch mounted over the rear axle in the truck bed.

### Trailer Hitch Classification

The rear bumper is intended to tow trailers up to 2,000 lbs (907 kg) without added equipment or alterations to the standard equipment. Your vehicle may be factory equipped for safe towing of trailers weighing over 2,000 lbs (907 kg) with the optional Trailer Tow Prep Package. See your dealer for package content.

The following chart provides the industry standard for the maximum trailer weight a given trailer hitch class can

tow and should be used to assist you in selecting the correct trailer hitch for your intended towing condition.

Trailer Hitch Classification Definitions	
Class	Max. Trailer Hitch Industry Standards
Class I - Light Duty	2,000 lbs (907 kg)
Class II - Medium Duty	3,500 lbs (1587 kg)
Class III - Heavy Duty	5,000 lbs (2268 kg)
Class IV - Extra Heavy Duty	10,000 lbs (4540 kg)
Fifth Wheel/Gooseneck	Greater than 10,000 lbs (4540 kg)
Refer to "Trailer Towing Weights (Maximum Trailer Weight Ratings)" for the website address that contains the necessary information for your specific drivetrain.	

All trailer hitches should be professionally installed on your vehicle.

## Trailer Towing Weights (Maximum Trailer Weight Ratings)

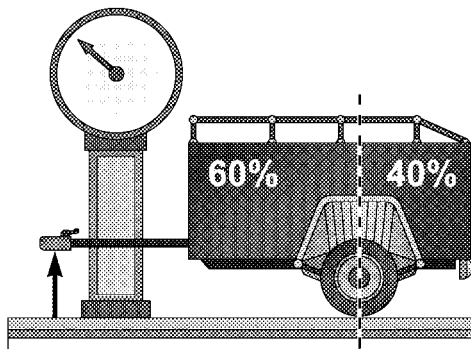
**NOTE:** For additional trailer towing information (maximum trailer weight ratings) refer to the following website addresses:

- [http:// www.dodge.com/towing](http://www.dodge.com/towing).
- [http:// www.dodge.ca](http://www.dodge.ca) (Canada).

### Trailer and Tongue Weight

Always load a trailer with 60% to 65% of the weight in the front of the trailer. This places 10% to 15% of the Gross Trailer Weight (GTW) on the tow hitch of your vehicle. Loads balanced over the wheels or heavier in the rear can cause the trailer to sway **severely** side to side which will cause loss of control of vehicle and trailer. Failure to load trailers heavier in front is the cause of many trailer accidents.

Never exceed the maximum tongue weight stamped on your bumper or trailer hitch.



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Consider the following items when computing the weight on the rear axle of the vehicle:

- The tongue weight of the trailer.
- The weight of any other type of cargo or equipment put in or on your vehicle.
- The weight of the driver and all passengers.

**NOTE:** Remember that everything put into or on the trailer adds to the load on your vehicle. Also, additional factory-installed options, or dealer-installed options, must be considered as part of the total load on your vehicle. Refer to the Tire and Loading Information placard in the “Tire Safety Information” section of this manual.

### Towing Requirements

To promote proper break-in of your new vehicle drive-train components the following guidelines are recommended:

#### **CAUTION!**

- **Avoid towing a trailer for the first 500 miles (805 km) of vehicle operation. Doing so may damage your vehicle.**
- **During the first 500 miles (805 km) of trailer towing, limit your speed to 50 mph (80 km/h).**

Perform the maintenance listed in Section 8 of this manual. When towing a trailer, never exceed the GAWR, or GCWR, ratings.



**WARNING!**

Improper towing can lead to an injury accident. Follow these guidelines to make your trailer towing as safe as possible:

Make certain that the load is secured in the trailer and will not shift during travel. When trailering cargo that is not fully secured, dynamic load shifts can occur that may be difficult for the driver to control. You could lose control of your vehicle and have an accident.

- When hauling cargo or towing a trailer, do not overload your vehicle or trailer. Overloading can cause a loss of control, poor performance or damage to brakes, axle, engine, transmission, steering, suspension, chassis structure or tires.
- Safety chains must always be used between your vehicle and trailer. Always connect the chains to the

frame or hook retainers of the vehicle hitch. Cross the chains under the trailer tongue and allow enough slack for turning corners.

- Vehicles with trailers should not be parked on a grade. When parking, apply the parking brake on the tow vehicle. Put the tow vehicle automatic transmission in PARK. With four-wheel-drive vehicles, make sure the transfer case is not in neutral. Always, block or "chock" the trailer wheels.
- GCWR must not be exceeded.
- **Total weight must be distributed between the tow vehicle and the trailer such that the following four ratings are not exceeded:**
  1. GVWR
  2. GTW
  3. GAWR

4. Tongue weight rating for the trailer hitch utilized (This requirement may limit the ability to always achieve the 10% to 15% range of tongue weight as a percentage of total trailer weight).

### Towing Requirements — Tires

- Do not attempt to tow a trailer while using a compact spare tire.
- Proper tire inflation pressures are essential to the safe and satisfactory operation of your vehicle. Refer to “Tires–General Information” for proper tire inflation procedures.
- Check the trailer tires for proper tire inflation pressures before trailer usage.
- Check for signs of tire wear or visible tire damage before towing a trailer. Refer to “Tires–General Information” for the proper inspection procedure.

- When replacing tires, refer to “Tires–General Information” for proper tire replacement procedures. Replacing tires with a higher load carrying capacity will not increase the vehicle’s GVWR and GAWR limits.

### Towing Requirements — Trailer Brakes

- Do **not** interconnect the hydraulic brake system or vacuum system of your vehicle with that of the trailer. This could cause inadequate braking and possible personal injury.
- An electronically actuated trailer brake controller is required when towing a trailer with electronically actuated brakes. When towing a trailer equipped with a hydraulic surge actuated brake system, an electronic brake controller is not required.
- Trailer brakes are recommended for trailers over 1,000 lbs (454 kg) and required for trailers in excess of 2,000 lbs (907 kg).

**CAUTION!**

If the trailer weighs more than 1,000 lbs (454 kg) loaded, it should have its own brakes and they should be of adequate capacity. Failure to do this could lead to accelerated brake lining wear, higher brake pedal effort, and longer stopping distances.

**WARNING!**

- Do not connect trailer brakes to your vehicle's hydraulic brake lines. It can overload your brake system and cause it to fail. You might not have brakes when you need them and could have an accident.

*(Continued)*

**WARNING! (Continued)**

- Towing any trailer will increase your stopping distance. When towing you should allow for additional space between your vehicle and the vehicle in front of you. Failure to do so could result in an accident.

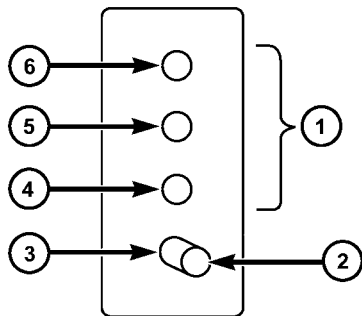
**Towing Requirements — Trailer Lights & Wiring**

Whenever you pull a trailer, regardless of the trailer size, stop lights and turn signals on the trailer are required for motoring safety.

The Trailer Tow Package may include a 4 and 7-pin wiring harness. Use a factory approved trailer harness and connector.

**NOTE:** Do not cut or splice wiring into the vehicles wiring harness.

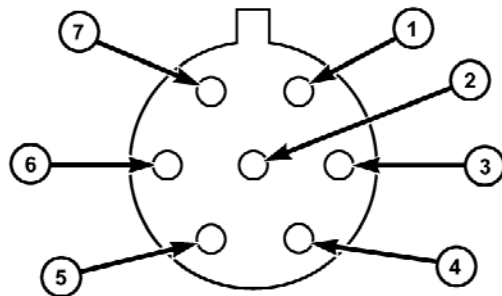
The electrical connections are all complete to the vehicle but you must mate the harness to a trailer connector. Refer to the following illustrations.



**4-Pin Connector**

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- |                 |                     |
|-----------------|---------------------|
| 1 — Female Pins | 4 — Park            |
| 2 — Male Pin    | 5 — Left Stop/Turn  |
| 3 — Ground      | 6 — Right Stop/Turn |



**7-Pin Connector**

057003765

- |                     |                    |
|---------------------|--------------------|
| 1 — Battery         | 5 — Ground         |
| 2 — Backup Lamps    | 6 — Left Stop/Turn |
| 3 — Right Stop/Turn | 7 — Running Lamps  |
| 4 — Electric Brakes |                    |

**WARNING!**

Any work done to the vehicles electrical system, or wiring, should be performed by a qualified automotive technician, if done improperly it may cause damage to the electrical system wiring and could result in serious or fatal injury.

**Towing Tips**

Before setting out on a trip, practice turning, stopping and backing the trailer in an area away from heavy traffic.

**Automatic Transmission**

The "DRIVE" range can be selected when towing. However, if frequent shifting occurs while in this range, the "TOW HAUL" or "OD/OFF" range should be selected.

**NOTE:** Using the "TOW HAUL" or "OD/OFF" range while operating the vehicle under heavy operating conditions will improve performance and extend transmission life by reducing excessive shifting and heat build up. This action will also provide better engine braking.

The automatic transmission fluid and filter should be changed if you REGULARLY tow a trailer for more than 45 minutes of continuous operation. Refer to the "Maintenance Schedule" in Section 8 for the proper maintenance intervals.

**NOTE:** Check the automatic transmission fluid level before towing.

**Tow/Haul — If Equipped**

To reduce potential for automatic transmission overheating, turn the "TOW HAUL OD/OFF" feature ON when driving in hilly areas or shift the transmission to Drive position 2 on more severe grades.

### Electronic Speed Control — If Equipped

- Do not use in hilly terrain or with heavy loads.
- When using the speed control, if you experience speed drops greater than 10 mph (16 km/h), disengage until you can get back to cruising speed.
- Use speed control in flat terrain and with light loads to maximize fuel efficiency.

### Cooling System

To reduce potential for engine and transmission overheating, take the following actions:

**NOTE:** Engine power may be temporarily reduced in order to maintain oil and coolant temperatures under extreme trailer tow operating conditions.

#### – *City Driving*

When stopped for short periods of time, put transmission in neutral and increase engine idle speed.

#### – *Highway Driving*

Reduce speed.

#### – *Air Conditioning*

Turn off temporarily.

### SNOWPLOW

Snowplow Prep Packages are available as a factory-installed option. These packages include components necessary to equip your vehicle with a snowplow.

**NOTE:** Before installation of a snowplow, it is highly recommended that the owner/installer obtain and follow the recommendations contained within the current Dodge Body Builder's Guide. See your authorized dealer, installer or snowplow manufacturer for this information. There are unique electrical systems that must be connected to properly assure operator safety, and to prevent overloading vehicle systems.

**WARNING!**

Attaching a snowplow to this vehicle could adversely affect performance of the airbag system in an accident. Do not expect that the airbag will perform as described earlier in this manual

**RECREATIONAL TOWING (BEHIND MOTORHOME, ETC.)****CAUTION!**

Front or rear wheel lifts should not be used. Internal damage to the transmission or transfer case will occur if a front or rear wheel lift is used when recreational towing.

**Recreational Towing – Two-Wheel Drive Models**

Recreational towing of two-wheel drive models is not allowed. Towing with the rear wheels on the ground can result in severe transmission damage.

**Recreational Towing – Four-Wheel Drive Models****CAUTION!**

Failure to follow these requirements can cause severe damage to the transmission and/or transfer case.

**NOTE:** Both the manual shift and electronic shift transfer cases must be shifted into NEUTRAL for recreational towing. Automatic transmissions must be shifted into the PARK position for recreational towing. Refer to the following for the proper transfer case NEUTRAL shifting procedure for your vehicle.

### Recreational Towing Procedure — Manual Shift Transfer Case — If Equipped

Use the following procedure to prepare your vehicle for recreational towing:

#### **CAUTION!**

**It is necessary to follow these steps to be certain that the transfer case is fully in NEUTRAL before recreational towing to prevent damage to internal parts.**

1. Bring the vehicle to a complete stop.
2. Shut OFF the engine.
3. Depress the brake pedal.
4. Shift the transmission into NEUTRAL.
5. Shift the transfer case lever into NEUTRAL.
6. Start the engine.
7. Shift the transmission into REVERSE.
8. Release the brake pedal for five seconds and ensure that there is no vehicle movement.
9. Repeat steps 7 and 8 with the transmission in DRIVE.
10. Shut OFF the engine and place the ignition key in the unlocked OFF position.
11. Shift the transmission into PARK.
12. Apply the parking brake.
13. Attach the vehicle to the tow vehicle with the tow bar.
14. Release the parking brake.



**CAUTION!**

Damage to the transmission may occur if the transmission is shifted into PARK with the transfer case in NEUTRAL and the engine running. With the transfer case in NEUTRAL ensure that the engine is OFF prior to shifting the transmission into PARK.

**Returning to Normal Operation — Manual Shift Transfer Case**

Use the following procedure to prepare your vehicle for normal usage:

1. Bring the vehicle to a complete stop.
2. Apply the parking brake.
3. Shut OFF the engine.
4. Depress the brake pedal.

5. Shift the transmission into NEUTRAL.
6. Shift the transfer case lever into desired position.
7. Shift the transmission into PARK.

**WARNING!**

You or others could be injured if you leave the vehicle unattended with the transfer case in the NEUTRAL position without first fully engaging the parking brake. The transfer case NEUTRAL position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move, regardless of the transmission position. The parking brake should always be applied when the driver is not in the vehicle.

**CAUTION!**

- Do not use a bumper-mounted clamp-on tow bar on your vehicle. The bumper face bar will be damaged.
- Do not disconnect the rear driveshaft because fluid will leak from the transfer case and damage the internal parts.

**Recreational Towing Procedure — Electronic Shift Transfer Case — If Equipped**

Use the following procedure to prepare your vehicle for recreational towing:

**CAUTION!**

**It is necessary to follow these steps to be certain that the transfer case is fully in NEUTRAL before recreational towing, to prevent damage to internal parts.**

1. Bring the vehicle to a complete stop.
2. Shut OFF the engine.
3. Turn the ignition key to the ON position, but do not start the engine.
4. Depress the brake pedal.
5. Shift the transmission into NEUTRAL.
6. Using the point of a ballpoint pen or similar object, depress the recessed transfer case NEUTRAL button for four seconds.
7. After shift is completed and the NEUTRAL light comes on, release the NEUTRAL button.
8. Start the engine.
9. Shift the transmission into REVERSE.
10. Release the brake pedal for five seconds and ensure that there is no vehicle movement.

11. Repeat steps 9 and 10 with the transmission in DRIVE.
12. Shut the engine OFF and place ignition key in the unlocked OFF position.
13. Shift the transmission into PARK.
14. Apply the parking brake.
15. Attach the vehicle to the tow vehicle with the tow bar.
16. Release the parking brake.

**NOTE:**

- Steps 1 through 5 are requirements that must be met prior to depressing the NEUTRAL selection button, and must continue to be met until the four seconds elapses and the shift has been completed. If any of these requirements (with the exception of 3 - Key ON) are not met prior to depressing the NEUTRAL button or are no longer met during the four second timer, then

the NEUTRAL indicator light will flash continuously until all requirements are met or until the NEUTRAL button is released.

- The ignition key must be ON for a shift to take place and for the position indicator lights to be operable. If the key is not ON, the shift will not take place and no position indicator lights will be on or flashing.
- Flashing NEUTRAL position indicator light indicates that shift requirements have not been met.

**CAUTION!**

**Damage to the transmission may occur if the transmission is shifted into PARK with the transfer case in NEUTRAL and the engine running. With the transfer case in NEUTRAL, ensure that the engine is OFF prior to shifting the transmission into PARK.**

### Returning to Normal Operation — Electronic Shift Transfer Case

Use the following procedure to prepare your vehicle for normal usage:

1. Bring the vehicle to a complete stop.
2. Shut OFF the engine.
3. Turn the ignition key to the ON position, but do not start the engine.
4. Depress the brake pedal.
5. Shift the transmission into NEUTRAL.
6. Using the point of a ballpoint pen or similar object, depress the recessed transfer case Neutral (N) button for one second.
7. After the Neutral indicator light turns off, release the Neutral (N) button.

8. After the Neutral (N) button has been released, the transfer case will shift into the position identified by the selector switch.

9. Shift the transmission into PARK.

#### NOTE:

- The transfer case cannot be shifted into NEUTRAL from the 4AUTO (if equipped) position.
- Steps 1 through 5 are requirements that must be met prior to depressing the transfer case Neutral (N) button, and must continue to be met until one second elapses and the shift has been completed. If any of these requirements (with the exception of step 3 - key ON) are not met prior to depressing the Neutral (N) button, or are no longer met during the one second time, then all of the mode position indicator lights will flash continuously until all requirements are met, or until the Neutral (N) button is released.

- The ignition key must be ON for a transfer case shift to take place and for the position indicator lights to be operable. If the key is not ON, the shift will not take place and no position indicator lights will be on or flashing.
- Flashing Neutral position indicator light indicates that shift requirements have not been met.

### WARNING!

You or others could be injured if you leave the vehicle unattended with the transfer case in the NEUTRAL position without first fully engaging the parking brake. The transfer case NEUTRAL position disengages both the front and rear driveshafts from the powertrain and will allow the vehicle to move despite the transmission position. The parking brake should always be applied when the driver is not in the vehicle.

### CAUTION!

- Do not use a bumper-mounted clamp-on tow bar on your vehicle. The bumper face bar will be damaged.
- Do not disconnect the rear driveshaft because fluid will leak from the transfer case and fluid loss will damage internal parts.

### EQUIPMENT IDENTIFICATION PLATE

The equipment Identification Plate is located on the hood inner surface.

The following information about your vehicle is displayed on this plate: Model, Wheelbase, Vehicle Identification Number, Truck Order Number, and code numbers with descriptions of all production and special equipment on the truck as shipped from the factory.

**NOTE:** Always refer to the Equipment Identification Plate When Ordering Parts.



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# WHAT TO DO IN EMERGENCIES

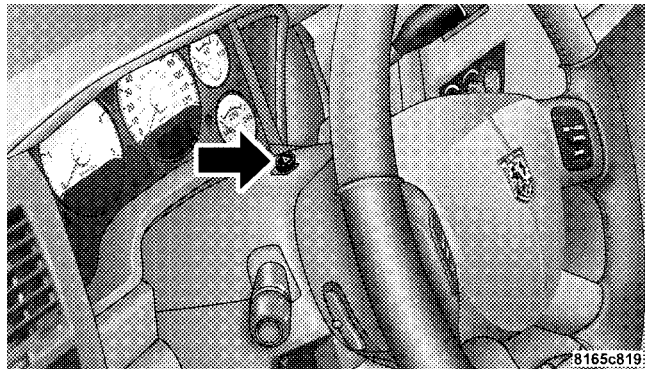
## CONTENTS

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■ Hazard Warning Flasher . . . . .	406	■ Hoisting . . . . .	418
■ Jacking Instructions . . . . .	407	■ Jump-Starting Procedures . . . . .	419
□ Jack Location . . . . .	407	■ Freeing A Stuck Vehicle . . . . .	421
□ Removing The Spare Tire . . . . .	408	■ Emergency Tow Hooks — If Equipped . . . . .	422
□ Tire Changing Procedure . . . . .	409	■ Towing A Disabled Vehicle . . . . .	422
□ Preparations . . . . .	409	□ 4-Wheel Drive Vehicles . . . . .	423
□ Instructions . . . . .	410	□ 2-Wheel Drive Vehicles . . . . .	423
□ Hub Caps/Wheel Covers . . . . .	414		

## HAZARD WARNING FLASHER

The Hazard Warning flasher switch is mounted on the top of the steering column.



Hazard Warning Flasher Switch



Press the switch to turn on the Hazard Warning flasher. When the switch is activated, all directional turn signals will flash on and off to warn oncoming traffic of an emergency. Press the switch a second time to turn off the Hazard Warning flasher.

This is an emergency warning system and should not be used when the vehicle is in motion. Use it when your vehicle is disabled and is creating a safety hazard for other motorists.

When you must leave the vehicle to seek assistance, the Hazard Warning flasher will continue to operate even though the ignition switch is OFF.

**NOTE:** With extended use, the Hazard Warning flasher may discharge your battery.



## JACKING INSTRUCTIONS

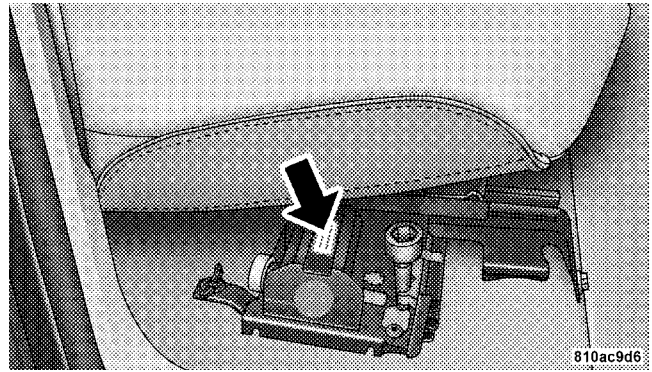
### WARNING!

- Being under a jacked-up vehicle is dangerous. The vehicle could slip off the jack and fall on you. You could be crushed. Never put any part of your body under a vehicle that is on a jack. Never start or run the engine while the vehicle is on a jack. If you need to get under a raised vehicle, take it to an authorized service center where it can be raised on a lift.
- The jack is designed to use as a tool for changing tires only. The jack should not be used to lift the vehicle for service purposes. The vehicle should be jacked on a firm level surface only. Avoid ice or slippery areas.

### Jack Location

The jack and jack tools are stored under the front passenger seat. Lift the flap on the side of the seat for access.

Remove the jack and tools by removing the wing bolt and sliding the assembly from under the seat.

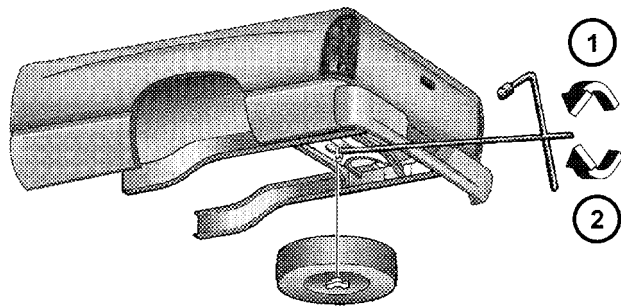


Jack Location

## Removing The Spare Tire

Remove the spare tire before attempting to jack the truck. Attach the wheel wrench to the jack extension tube. Insert the tube through the access hole between the lower tailgate and the top of the bumper and into the winch mechanism tube. Rotate the wheel wrench handle counterclockwise until the spare tire is on the ground with enough cable slack to allow you to pull it out from under the vehicle. When the spare is clear, tilt the retainer at the end of the cable and pull it through the center of the wheel.

**NOTE:** Always stow the spare tire with the valve stem facing the ground.



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### Removing the Spare Tire

- 1 — Lower
- 2 — Raise

It is recommended that you stow the flat or spare to avoid tangling the loose cable.

**NOTE:** The winch mechanism is designed for use with the jack extension tube only. Use of an air wrench or other power tools is not recommended and can damage the winch.

### Tire Changing Procedure

#### WARNING!

- Getting under a jacked-up vehicle is dangerous. The vehicle could slip off the jack and fall on you. You could be crushed. Never get any part of your body under a vehicle that is on a jack. Never start or run the engine while the vehicle is on a jack. If you need to get under a raised vehicle, take it to an authorized service center where it can be raised on a lift.

*(Continued)*

#### WARNING! (Continued)

- Do not raise this vehicle using a bumper jack. The jack is designed as a tool for changing tires on this vehicle only. It is not recommended that the jack be used for service purposes or to lift more than one wheel at a time.

### Preparations

1. Park the vehicle on a firm, level surface. Avoid ice or slippery areas.

#### WARNING!

Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to avoid the danger of being hit when operating the jack or changing the wheel.

2. Set the parking brake.

3. Place the shift lever into PARK. On four-wheel drive vehicles, shift the transfer case to the 4L position.
4. Turn the ignition OFF.
5. Turn on the Hazard Warning flasher.



6. Block both the front and rear of the wheel diagonally opposite the jacking position. For example, if the right front wheel is being changed, block the left rear wheel.

**NOTE:** Passengers should not remain in the vehicle when the vehicle is being jacked.

## Instructions

### WARNING!

Carefully follow these tire changing warnings to help prevent personal injury or damage to your vehicle:

- Always park on a firm, level surface as far from the edge of the roadway as possible before raising the vehicle.
- Block the wheel diagonally opposite the wheel to be raised.
- Set the parking brake firmly and set an automatic transmission in PARK; a manual transmission in REVERSE.
- Never start or run the engine with the vehicle on a jack.
- Do not let anyone sit in the vehicle when it is on a jack.

*(Continued)*

**WARNING! (Continued)**

- Do not get under the vehicle when it is on a jack.
- Only use the jack in the positions indicated and for lifting this vehicle during a tire change.
- If working on or near a roadway, be extremely careful of motor traffic.
- To assure that spare tires, flat or inflated, are securely stowed, spares must be stowed with the valve stem facing the ground.
- Turn on the Hazard Warning flasher.



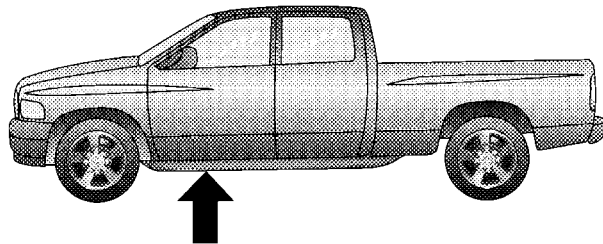
Jack Warning Label

1. Remove the spare wheel, jack, and tools from storage.

2. Using the wheel wrench, loosen, but do not remove, the wheel nuts by turning them counterclockwise one turn while the wheel is still on the ground.

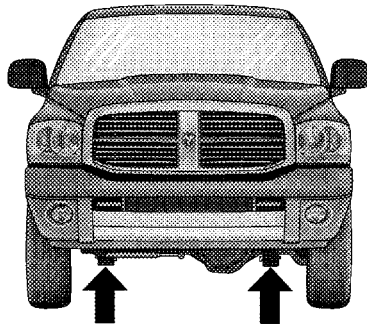
3. Placement of the Jack:

- For 2500/3500 4x2 series trucks, when changing a front wheel, place the bottle jack under the frame rail behind the wheel. Locate the jack as far forward as possible on the straight part of the frame.



4x2 Jacking Location

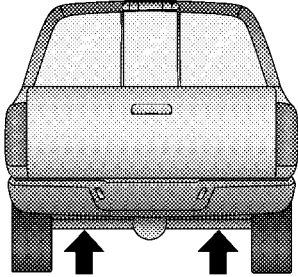
- Operate the jack using the jack drive tube and the wheel wrench. The tube extension, may be used, but is not required.
- For 2500/3500 4x4 series trucks, when changing the front wheel, assemble the jack drive tube to the jack and connect the drive tube to the extension tube. Place the jack under the axle as close to the tire as possible with the drive tubes extending to the front. Connect the jack tube extension and wheel wrench.



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#### 4x4 Jacking Location

- For all trucks, when changing a rear wheel, assemble the jack drive tube to the jack and connect the drive tube to the extension tube. Place the jack under the axle between the spring and the shock absorber with the drive tubes extending to the rear.



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#### Rear Jacking Location (All)

- Connect the jack tube extension and wheel wrench.

**Before raising the wheel off the ground, make sure that the jack will not damage surrounding truck parts and adjust the jack position as required.**

**NOTE:** If the 2500/3500 bottle jack will not lower by turning the dial (thumbwheel) by hand, it may be necessary to use the jack drive tube in order to lower the jack.

4. By rotating the wheel wrench clockwise, raise the vehicle until the wheel just clears the surface.

#### WARNING!

**Raising the vehicle higher than necessary can make the vehicle unstable and cause an accident. It could slip off the jack and hurt someone near it. Raise the vehicle only enough to remove the tire.**

5. Remove the wheel nuts and pull the wheel off. Install the spare wheel and wheel nuts with the cone shaped end of the nuts toward the wheel on 2500/3500 single rear-wheel (SRW) models. On 3500 dual rear-wheel models (DRW) the lug nuts are a two-piece assembly with a flat

face. Lightly tighten the nuts. To avoid risk of forcing the vehicle off the jack, do not fully tighten the nuts until the vehicle has been lowered.

6. Using the wheel wrench, finish tightening the nuts using a crisscross pattern. The correct nut tightness is 135 ft lbs (183 N·m) torque for 2500/3500 single-rear wheel (SRW) models, and 145 ft lbs (197 N·m) for 3500 dual rear-wheel models. If in doubt about the correct tightness, have them checked with a torque wrench by your authorized dealer or at a service station.

### **WARNING!**

**A loose tire or jack thrown forward in a collision or hard stop could injure someone in the vehicle. Always stow the jack parts and the extra tire and wheel in the places provided.**

7. Install wheel center cap and remove wheel blocks. Do not install chrome or aluminum wheel center caps on the spare wheel. This may result in cap damage.

8. Lower the jack to its fully closed position. If the bottle jack will not lower by turning the dial (thumbwheel) by hand, it may be necessary to use the jack drive tube in order to lower the jack. Stow the replaced tire, jack, and tools as previously described.

9. Adjust the tire pressure when possible.

**NOTE:** Do not oil wheel studs. For chrome wheels, do not substitute with chrome plated wheel nuts.

### **Hub Caps/Wheel Covers**

The hub caps must be removed before raising the vehicle off the ground.

For 2500/3500 single rear-wheel (SRW) models, use the blade on the end of the lug wrench to pry the hub cap off.



Insert the blade end into the pry-off notch and carefully pop off the hub cap with a back-and-forth motion.

On 3500 models with dual rear wheels (DRW), you must first remove the hub caps. The jack handle driver has a hook at one end that will fit in the pry off notch of the rear hub caps. Position the hook and pull out on the ratchet firmly. The hub cap should pop off. The wheel skins can now be removed. For the front hub cap on 3500 models use the blade on the end of the lug wrench to pry the caps off. The wheel skin can now be removed.

### CAUTION!

- Use a back-and-forth motion to remove the hub cap. Do not use a twisting motion when removing the hub cap, damage to the hub cap finish may occur.

*(Continued)*

### CAUTION! (Continued)

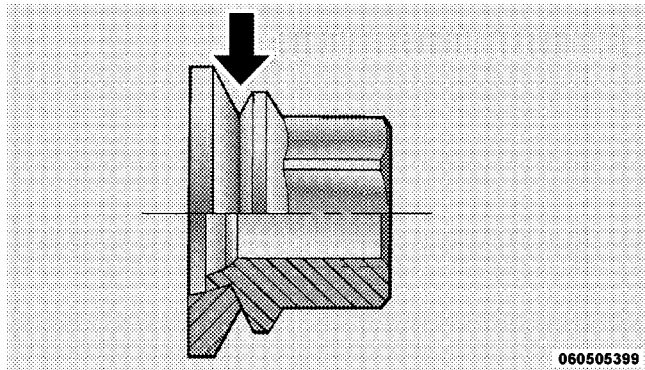
- The rear hub caps on the dual rear wheel has two pry-off notches. Make sure that the hook of the jack handle driver is located squarely in the cap notch before attempting to pull off.

You must use the flat end of the lug wrench to pry off the wheel skins. Insert the flat tip completely and using a back-and-forth motion, loosen the wheel skin. Repeat this procedure around the tire until the skin pops off.

Replace the wheel skins first using a rubber mallet. When replacing the hub caps, tilt the cap retainer over the lugnut bolt circle and strike the high side down with a rubber mallet. Be sure that the hub caps and wheel skins are firmly seated around the wheel.

### 8-Stud — Dual Rear Wheels

Dual wheels are flat-mounted and center-piloted. The lug nuts are a two-piece assembly. When the tires are being rotated or replaced, clean these lug nuts and add two drops of oil at the interface between the hex and the washer.



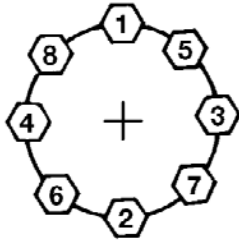
Oiling Location

Slots in the wheels will assist in properly orienting the inner and outer wheels. Align these slots when assembling the wheels for best access to the tire valve on the inner wheel. The tires of both dual wheels must be completely off the ground when tightening, to ensure wheel centering and maximum wheel clamping.

Dual wheel models require a special heavy-duty lug nut tightening adapter (included with the vehicle) to correctly tighten the lug nuts. Also, when it is necessary to remove and install dual rear wheels, use a proper vehicle lifting device.

**NOTE:** When installing a spare tire as part of a dual rear wheel end combination, the tire diameter of the two individual tires must be compared. If there is a significant difference, the larger tire should be installed in a front location. The correct direction of rotation for dual tire installations must also be observed.

These dual rear wheels should be tightened as follows:



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#### Tightening Pattern

1. Tighten the wheel nuts in the numbered sequence to a snug fit.

2. Retighten the wheel nuts in the same sequence to the torques listed in the table. Go through the sequence a second time to verify that specific torque has been achieved. Retighten to specifications at 100 miles (160 km) and after 500 miles (800 km).

It is recommended that wheel stud nuts be kept torqued to specifications at all times. Torque wheel stud nuts to specifications at each lubrication interval.

#### Wheel Nuts

All wheel nuts should be tightened occasionally to eliminate the possibility of wheel studs being sheared or the bolt holes in the wheels becoming elongated. This is especially important during the first few hundred miles/kilometers of operation to allow the wheel nuts to become properly set. All nuts should first be firmly seated against the wheel. The nuts should then be tightened to recommended torque. Tighten the nuts to final torque in increments. Progress around the bolt

circle, tightening the nut opposite to the nut just previously tightened until final torque is achieved. Recommended torques are shown in the following chart.

Disc Wheels	Type Nut	Stud Size	Torque Ft. Lbs.	Torque Newton Meters
	Cone	9/16-18	120-150	160-200
	Flanged	9/16-18	130-160	190-220

### To Stow The Flat Or Spare

#### **WARNING!**

**A loose tire thrown forward in a collision or hard stop could injure the occupants in the vehicle. Have the deflated (flat) tire repaired or replaced immediately.**

Turn the wheel so that the valve stem is down. Slide the wheel retainer through the center of the wheel and position it properly across the wheel opening.

For convenience in checking the spare tire inflation, stow with the valve stem toward the rear of the vehicle.

Attach the wheel wrench to the extension tube. Rotate the winch mechanism until the wheel is drawn into place against the underside of the vehicle. Continue to rotate until you feel the winch mechanism slip, or click three or four times. It cannot be overtightened. Push against the tire several times to be sure it is firmly in place.

### **HOISTING**

A conventional floor jack may be used at the jacking locations. Refer to the graphics that show jacking locations. However, a floor jack or frame hoist must never be used on any other parts or the underbody.

**CAUTION!**

Never use a floor jack directly under the differential housing of a loaded truck or damage to your vehicle may result.

**JUMP-STARTING PROCEDURES**

Do not attempt to push or tow your vehicle to get it started. Vehicles equipped with an automatic transmission cannot be started this way. Also, there is a greater risk of an accident when a vehicle is being pushed or towed. If the vehicle has a discharged battery, booster cables may be used to obtain a start from a booster battery or the battery in another vehicle. This type of start can be dangerous if done improperly, so follow this procedure carefully.

**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 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 that has a greater than 12-Volt system, i.e., do not use a 24-Volt power source.

1. 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 on both vehicles, place the automatic transmission in PARK and turn the ignition OFF.
3. Turn off the 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 positive terminal of the discharged battery.

**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!**

- You should not try to start your vehicle by pushing or towing.
- 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 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:**

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

**FREEING A STUCK VEHICLE**

If the vehicle becomes stuck in snow, sand, or mud, it can often be moved by a rocking motion. Move the shift lever rhythmically between DRIVE and REVERSE, while applying slight pressure to the accelerator.

In general, the least amount of accelerator pedal pressure to maintain the rocking motion without spinning the wheels or racing the engine, is most effective. Racing the engine or spinning the wheels, due to the frustration of not freeing the vehicle, may lead to transmission overheating and failure. Allow the engine to idle with the shift lever in NEUTRAL for at least one minute after every five rocking-motion cycles. This will minimize overheating and reduce the risk of transmission failure during prolonged efforts to free a stuck vehicle.

**EMERGENCY TOW HOOKS — IF EQUIPPED**

Your vehicle may be equipped with emergency tow hooks.

**NOTE:** For off-road recovery, it is recommended to use both of the front tow hooks to minimize the risk of damage to the vehicle.

**WARNING!**

- **Chains are not recommended for freeing a stuck vehicle. Chains may break, causing serious injury or death.**
- **Stand clear of vehicles when pulling with tow hooks. Tow straps and chains may break, causing serious injury.**

**CAUTION!**

**Tow hooks are for emergency use only to rescue a vehicle stranded off-road. Do not use tow hooks for tow truck hookup or highway towing. You could damage your vehicle.**

**TOWING A DISABLED VEHICLE**

Proper towing or lifting equipment is required to prevent damage to your vehicle. Use only tow bars and other equipment designed for the purpose, following equipment manufacturer's instructions. Use of safety chains is mandatory. Attach a tow bar or other towing device to the main structural members of the vehicle, not to bumpers or associated brackets. State and local laws applying to vehicles under tow must be observed.



## 4-Wheel Drive Vehicles

### CAUTION!

To avoid damage to the transfer case while towing, always use one of the following methods.

- The transfer case must be in the neutral position, and the transmission must be in PARK to tow a 4-Wheel Drive vehicle with one end of the vehicle raised.
- The manufacturer recommends towing with all wheels OFF the ground. Acceptable methods are to tow the vehicle on a flatbed or with one end of vehicle raised and the opposite end on a towing dolly.

## 2-Wheel Drive Vehicles

Provided that the transmission is operable, tow with the transmission in NEUTRAL and the ignition key in the OFF position along with the front wheels raised and the rear wheels on the ground. Speed must not exceed 30 mph (50 km/h) and distance must not exceed 15 miles (25 km).

If the vehicle is to be towed faster than 30 mph (50 km/h) or more than 15 miles (25 km) the vehicle must be towed with the rear wheels raised and the front wheels on the ground. It may also be towed on a flatbed or with the front wheels raised and the rear wheels on a dolly.

### CAUTION!

Towing faster than 30 mph (50 km/h) or for more than 15 miles (25 km) can cause severe damage to the transmission.



# MAINTAINING YOUR VEHICLE

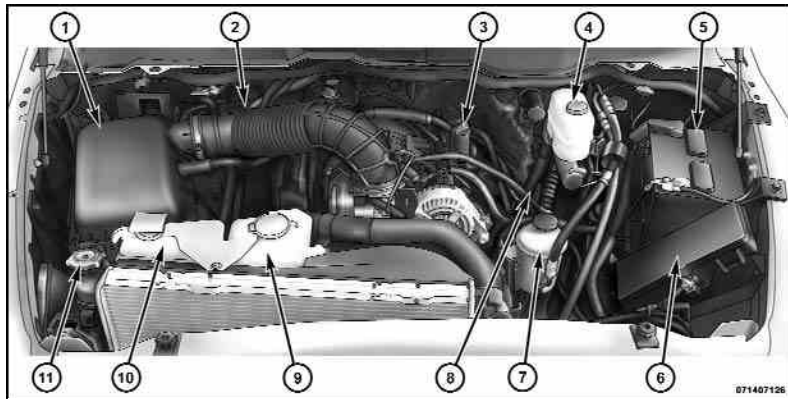
## CONTENTS

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■ Engine Compartment— 5.7L . . . . .	427	□ Engine Air Cleaner Filter . . . . .	434
■ Onboard Diagnostic System (OBD II) . . . . .	428	□ Maintenance-Free Battery . . . . .	434
□ Loose Fuel Filler Cap Message . . . . .	428	□ Air Conditioner Maintenance . . . . .	435
■ Emissions Inspection And Maintenance Programs . . . . .	429	□ Front Prop Shaft Lubrication — 2500/3500 (4X4) Models . . . . .	436
■ Replacement Parts . . . . .	430	□ Body Lubrication . . . . .	437
■ Dealer Service . . . . .	430	□ Windshield Wiper Blades . . . . .	437
■ Maintenance Procedures . . . . .	431	□ Adding Washer Fluid . . . . .	438
□ Engine Oil . . . . .	431	□ Exhaust System . . . . .	438
□ Engine Oil Filter . . . . .	433		

- Cooling System . . . . . 441
- Brake System . . . . . 447
- Rear Axle And 4X4 Front Driving Axle Fluid Level . . . . . 448
- Transfer Case . . . . . 449
- Automatic Transmission . . . . . 449
- Appearance Care And Protection From Corrosion . . . . . 452
- Fuses . . . . . 458
  - Integrated Power Module . . . . . 458
- Vehicle Storage . . . . . 463
- Replacement Light Bulbs . . . . . 464
- Bulb Replacement . . . . . 465
  - Headlight (Halogen)/Front Park And Turn Lights . . . . . 465
  - Fog Lights . . . . . 468
  - Tail, Stop, Turn And Backup Lights . . . . . 469
  - Center High-Mounted Stoplight (CHMSL) With Cargo Light . . . . . 472
  - Cab Top Clearance Lights — If Equipped . . . 473
  - Tailgate ID Lights (Dual Rear Wheels) — If Equipped . . . . . 475
  - Rear Light Bar ID Marker (Dual Rear Wheel) — If Equipped . . . . . 476
  - Side Marker Lights (Dual Rear Wheels) . . . 477
- Fluids And Capacities . . . . . 478
- Fluids, Lubricants And Genuine Parts . . . . . 479
  - Engine . . . . . 479
  - Chassis . . . . . 480

## ENGINE COMPARTMENT— 5.7L



- 1 — Air Cleaner Filter
- 2 — Automatic Transmission Dipstick
- 3 — Engine Oil Fill
- 4 — Brake Fluid Reservoir
- 5 — Battery
- 6 — Integrated Power Module

- 7 — Power Steering Fluid Reservoir
- 8 — Engine Oil Dipstick
- 9 — Washer Fluid Reservoir
- 10 — Engine Coolant Reservoir
- 11 — Coolant Pressure Cap

## ONBOARD DIAGNOSTIC SYSTEM (OBD II)

Your vehicle is equipped with a sophisticated onboard diagnostic system called OBDII. This system monitors the performance of the emissions, engine, 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, severe catalytic converter damage and power loss will soon occur. Immediate service is required.**

### Loose Fuel Filler Cap Message

If the vehicle's diagnostic system determines that the fuel filler cap is loose, improperly installed, or damaged, a GASCAP 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 light off.

## EMISSIONS INSPECTION AND MAINTENANCE PROGRAMS

In some localities, it may be a legal requirement to pass an inspection of your vehicle's emissions control system. Failure to pass could prevent vehicle registration.



For states that require an Inspection and Maintenance (I/M), this check verifies the Malfunction Indicator Light (MIL) is functioning and is not on when the engine is running, and that the OBD II system is ready for testing.

Normally, the OBD II system will be ready. The OBD II system may **not** be ready if your vehicle was recently

serviced, recently had a dead battery or a battery replacement. If the OBD II system should be determined not ready for the I/M test, your vehicle may fail the test.

Your vehicle has a simple ignition key-actuated test, which you can use prior to going to the test station. To check if your vehicle's OBD II system is ready, you must do the following:

1. Insert your ignition key into the ignition switch.
2. Turn the ignition to the ON position, but do not crank or start the engine.
3. If you crank or start the engine, you will have to start this test over.
4. As soon as you turn your key to the ON position, you will see the MIL symbol come on as part of a normal bulb check.

5. Approximately 15 seconds later, one of two things will happen:

- a. The MIL will flash for about 10 seconds and then return to being fully illuminated until you turn OFF the ignition or start the engine. This means that your vehicle's OBD II system is **not ready** and you should **not** proceed to the I/M station.
- b. The MIL will not flash at all and will remain fully illuminated until you turn OFF the ignition or start the engine. This means that your vehicle's OBD II system is **ready** and you can proceed to the I/M station.

If your OBD II system is **not ready**, you should see your authorized dealer or repair facility. If your vehicle was recently serviced or had a battery failure or replacement, you may need to do nothing more than drive your vehicle as you normally would in order for your OBD II system to update. A recheck with the above test routine may then indicate that the system is now ready.

Regardless of whether your vehicle's OBD II system is ready or not, if the MIL is illuminated during normal vehicle operation you should have your vehicle serviced before going to the I/M station. The I/M station can fail your vehicle because the MIL is on with the engine running.

### REPLACEMENT PARTS

Use of genuine MOPAR® parts for normal/scheduled maintenance and repairs is highly recommended to ensure the designed performance. Damage or failures caused by the use of non-MOPAR® parts for maintenance and repairs will not be covered by the manufacturer's warranty.

### DEALER SERVICE

Your authorized dealer has the qualified service personnel, special tools and equipment to perform all service operations in an expert manner. Service Manuals are available which include detailed service information for



your vehicle. Refer to these manuals before attempting any procedure yourself.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

### 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 proper equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.

## MAINTENANCE PROCEDURES

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.

## Engine Oil

### Checking Oil Level

To assure proper lubrication of your vehicle's engine, the engine oil must be maintained at the correct level. The best time to check the engine oil level is about five minutes after a fully warmed up engine is shut off or before starting the engine after it has sat overnight.

Checking the oil while the vehicle is on level ground will improve the accuracy of the oil level readings. Always maintain the oil level within the SAFE zone on the

dipstick. Adding one quart of oil when the reading is at the bottom of the SAFE zone will result in a reading at the top of the safe zone on these engines.

### CAUTION!

Overfilling or underfilling the crankcase will cause oil aeration or loss of oil pressure. This could damage your engine.

### Change Engine Oil

Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals.

### Engine Oil Selection

For best performance and maximum protection under all types of operating conditions, the manufacturer only recommends engine oils that are API Certified and meet the requirements of Chrysler Material Standard MS-6395.

### American Petroleum Institute (API) Engine Oil Identification Symbol



This symbol means that the oil has been certified by the American Petroleum Institute (API). The manufacturer only recommends API Certified engine oils.

### Engine Oil Viscosity (SAE Grade)

SAE 5W-20 engine oil is recommended for all operating temperatures. This engine oil improves low temperature starting and vehicle fuel economy. The engine oil filler cap also shows the recommended engine oil viscosity for your engine. For information on engine oil filler cap location, refer to “Engine Compartment” in this section.

**NOTE:** For 2500/3500 trucks with a 5.7L engine operating under a gross combined weight rating of 14,000 lbs (6 350 kg) or greater, SAE 5W-30 engine oil is recommended for all operating temperatures.

Lubricants, which do not have both the engine oil certification mark and the correct SAE viscosity grade number, should not be used.

### **Synthetic Engine Oils**

You may use synthetic engine oils if the recommended oil quality requirements are met, and the recommended maintenance intervals for oil and filter changes are followed.

### **Materials Added to Engine Oil**

Do not add any supplemental materials, other than leak detection dyes, to the engine oil. Engine oil is an engineered product and its performance may be impaired by supplemental additives.

### **Disposing of Used Engine Oil and Oil Filters**

Care should be taken in disposing of used engine oil and oil filters from your vehicle. Used oil and oil filters, indiscriminately discarded, can present a problem to the environment. Contact your authorized dealer, service station, or governmental agency for advice on how and where used oil and oil filters can be safely discarded in your area.

### **Engine Oil Filter**

The engine oil filter should be replaced at every engine oil change.

### **Engine Oil Filter Selection**

The manufacturer's engines have a full-flow type oil filter. Use a filter of this type for replacement. The quality of replacement filters varies considerably. Only high-quality filters should be used to assure most efficient service. MOPAR® engine oil filters are a high-quality oil filter and are recommended.

### Engine Air Cleaner Filter

Refer to the "Maintenance Schedule" in Section 8 for the proper maintenance intervals.

#### **WARNING!**

The air induction system (air cleaner, hoses, etc.) can provide a measure of protection in the case of engine backfire. Do not remove the air induction system (air cleaner, hoses, etc.) unless such removal is necessary for repair or maintenance. Make sure that no one is near the engine compartment before starting the vehicle with the air induction system (air cleaner, hoses, etc.) removed. Failure to do so can result in serious personal injury.

### Engine Air Cleaner Filter Selection

The quality of replacement engine air cleaner filters varies considerably. Only high quality filters should be

used to assure most efficient service. MOPAR® engine air cleaner filters are a high quality filter and are recommended.

### Maintenance-Free Battery

The top of the maintenance-free battery is permanently sealed. You will never have to add water, nor is periodic maintenance required.

#### **WARNING!**

- Battery fluid is a corrosive acid solution and can burn or even blind you. Do not allow battery fluid to contact your eyes, skin or clothing. Do not lean over a battery when attaching clamps. If acid splashes in eyes or on skin, flush the area immediately with large amounts of water.

*(Continued)*

**WARNING! (Continued)**

- Battery gas is flammable and explosive. Keep flame or sparks away from the battery. Do not use a booster battery or any other booster source with an output greater than 12 Volts. Do not allow cable clamps to touch each other.
- Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

**CAUTION!**

- It is essential when replacing the cables on the battery that the positive cable is attached to the positive post and the negative cable is attached to the negative post. Battery posts are marked (+) positive and (-) negative and are identified on the battery case.
- If a “fast charger” is used while the battery is in the vehicle, disconnect both vehicle battery cables before connecting the charger to the battery. Do not use a “fast charger” to provide starting voltage.

**Air Conditioner Maintenance**

For best possible performance, your air conditioner should be checked and serviced by an authorized dealer at the start of each warm season. This service should

include cleaning of the condenser fins and a performance test. Drive belt tension should also be checked at this time.

### **WARNING!**

- **Use only refrigerants and compressor lubricants approved by the manufacturer for your air conditioning system. Some unapproved refrigerants are flammable and can explode, injuring you. Other unapproved refrigerants or lubricants can cause the system to fail, requiring costly repairs. Refer to Section 3 of the Warranty Information book for further warranty information.**
- **The air conditioning system contains refrigerant under high pressure. To avoid risk of personal injury or damage to the system, adding refrigerant or any repair requiring lines to be disconnected should be done by an experienced repairman.**

**NOTE:** Use only manufacturer approved A/C System Sealers, Stop Leak Products, Seal Conditioners, Compressor Oil, or Refrigerants.

### **Refrigerant Recovery and Recycling**

R-134a air conditioning refrigerant is a hydrofluorocarbon (HFC) that is endorsed by the Environmental Protection Agency (EPA) and is an ozone-saving product. However, the manufacturer recommends that air conditioning service be performed by authorized dealers or other service facilities using recovery and recycling equipment.

### **Front Prop Shaft Lubrication — 2500/3500 (4X4) Models**

Lubricate the front driveshaft grease fitting at each oil change. Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals. Use MOPAR® Type MS-6560 (lithium-based grease), or equivalent.

## Body Lubrication

Locks and all body pivot points, including such items as seat tracks, door hinge pivot points and rollers, liftgate, tailgate, sliding doors and hood hinges, should be lubricated periodically with a lithium based grease such as MOPAR® Spray White Lube to assure quiet, easy operation and to protect against rust and wear. Prior to the application of any lubricant, the parts concerned should be wiped clean to remove dust and grit; after lubricating excess oil and grease should be removed. Particular attention should also be given to hood latching components to ensure proper function. When performing other underhood services, the hood latch, release mechanism and safety catch should be cleaned and lubricated.

The external lock cylinders should be lubricated twice a year, preferably in the Fall and Spring. Apply a small amount of a high quality lubricant such as MOPAR® Lock Cylinder Lubricant directly into the lock cylinder.

## Windshield Wiper Blades

Clean the rubber edges of the wiper blades and the windshield periodically with a sponge or soft cloth and a mild nonabrasive cleaner. This will remove accumulations of salt or road film.

Operation of the wipers on dry glass for long periods may cause deterioration of the wiper blades. Always use washer fluid when using the wipers to remove salt or dirt from a dry windshield.

Avoid using the wiper blades to remove frost or ice from the windshield. Keep the blade rubber out of contact with petroleum products such as engine oil, gasoline, etc.

### Adding Washer Fluid

The fluid reservoir is located under the hood and should be checked for fluid level at regular intervals. Fill the reservoir with windshield washer solvent only (not radiator antifreeze). When refilling the washer fluid reservoir, take some washer fluid and apply it to a cloth or towel and wipe clean the wiper blades, this will help blade performance.

To prevent freeze-up of your windshield washer system in cold weather, select a solution or mixture that meets or exceeds the temperature range of your climate. This rating information can be found on most washer fluid containers.

The washer fluid reservoir will hold a full gallon of fluid when the “Low Washer Fluid Light” illuminates.

### WARNING!

**Commercially available windshield washer solvents are flammable. They could ignite and burn you. Care must be exercised when filling or working around the washer solution.**

After the engine has warmed, operate the defroster for a few minutes to reduce the possibility of smearing or freezing the fluid on the cold windshield. MOPAR® All Weather Windshield Washer Solution, used with water as directed on the container, aids cleaning action, reduces the freezing point to avoid line clogging, and is not harmful to paint or trim.

### Exhaust System

The best protection against carbon monoxide entry into the vehicle body is a properly maintained engine exhaust system.



Whenever a change is noticed in the sound of the exhaust system, when exhaust fumes can be detected inside the vehicle, or when the underside or rear of the vehicle is damaged, have a competent mechanic inspect the complete exhaust system and adjacent body areas for broken, damaged, deteriorated, or mispositioned parts. Open seams or loose connections could permit exhaust fumes to seep into the passenger compartment. In addition, inspect the exhaust system each time the vehicle is raised for lubrication or oil change. Replace as required.

### **WARNING!**

**Exhaust gases can injure or kill. They contain carbon monoxide (CO) which is colorless and odorless. Breathing it can make you unconscious and can eventually poison you. To avoid breathing CO, refer to "Exhaust Gas" in the "Safety Tips" section of this manual.**

The catalytic converter requires the use of unleaded fuel only. Leaded gasoline will destroy the effectiveness of the catalyst as an emission control device.

Under normal operating conditions, the catalytic converter will not require maintenance. However, it is important to keep the engine properly tuned to assure proper catalyst operation and prevent possible catalyst damage.

**CAUTION!**

Damage to the catalytic converter can result if your vehicle is not kept in proper operating condition. In the event of engine malfunction, particularly involving engine misfire or other apparent loss of performance, have your vehicle serviced promptly. Continued operation of your vehicle with a severe malfunction could cause the converter to overheat, resulting in possible damage to the converter and the vehicle.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

**WARNING!**

A hot exhaust system can start a fire if you park over materials that can burn. Such materials might be grass or leaves coming into contact with your exhaust system. Do not park or operate your vehicle in areas where your exhaust system can contact anything that can burn.

In unusual situations involving grossly malfunctioning engine operation, a scorching odor may indicate severe and abnormal catalyst overheating. If this occurs, the vehicle should be stopped, the engine shut off and the vehicle allowed to cool. Thereafter, service, including a tune-up to manufacturer's specifications, should be obtained immediately.

To minimize the possibility of catalyst damage:

- Do not shut off the engine or interrupt the ignition when the transmission is in gear and the vehicle is in motion.
- Do not try to start the engine by pushing or towing the vehicle.
- Do not idle the engine with any spark plug wires disconnected or removed, such as when diagnostic testing, or for prolonged periods during very rough idling or malfunctioning operating conditions.

## Cooling System

### **WARNING!**

**You or others can be badly burned by hot engine coolant (antifreeze) or steam from your radiator. If you see or hear steam coming from under the hood, do not open the hood until the radiator has had time to cool. Never try to open a cooling system pressure cap when the radiator is hot.**

### Engine Coolant Checks

Check the engine coolant (antifreeze) protection every 12 months (before the onset of freezing weather, where applicable). If the engine coolant (antifreeze) is dirty or rusty in appearance, the system should be drained, flushed and refilled with fresh engine coolant (antifreeze). Check the front of the A/C condenser for any

accumulation of bugs, leaves, etc. If dirty, clean by gently spraying water from a garden hose vertically down the face of the condenser.

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

With the engine at normal operating temperature (but not running), check the cooling system pressure cap for proper vacuum sealing by draining a small amount of engine coolant (antifreeze) from the radiator drain cock. If the cap is sealing properly, the engine coolant (antifreeze) will begin to drain from the coolant recovery bottle. **DO NOT REMOVE THE COOLANT PRESSURE CAP WHEN THE COOLING SYSTEM IS HOT.**

### **Cooling System — Drain, Flush and Refill**

If the engine coolant (antifreeze) 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 the old engine coolant (antifreeze) solution.

Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals.

### **Selection Of Coolant**

Use only the manufacturer’s recommended engine coolant (antifreeze). Refer to “Fluids, Lubricants, and Genuine Parts” in this section for the correct fluid type.

**CAUTION!**

- Mixing of engine coolant (antifreeze) other than specified HOAT engine coolant (antifreeze), may result in engine damage and may decrease corrosion protection. If a non-HOAT engine coolant (antifreeze) is introduced into the cooling system in an emergency, it should be replaced with the specified engine coolant (antifreeze) as soon as possible.
- Do not use water alone or alcohol-based engine coolant (antifreeze) products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the radiator engine coolant (antifreeze) and may plug the radiator.

*(Continued)*

**CAUTION! (Continued)**

- This vehicle has not been designed for use with Propylene Glycol based engine coolant (antifreeze). Use of Propylene Glycol based engine coolant (antifreeze) is not recommended.

**Adding Coolant**

Your vehicle has been built with an improved engine coolant (antifreeze) that allows extended maintenance intervals. This engine coolant (antifreeze) 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 engine coolant (antifreeze) throughout the life of your vehicle. Please review these recommendations for using Hybrid Organic Additive Technology (HOAT) engine coolant (antifreeze).

When adding engine coolant (antifreeze):

- 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 (antifreeze) 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/engine coolant (antifreeze) 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 engine coolant (antifreeze) types will decrease the life of the engine coolant (antifreeze) and will require more frequent engine coolant (antifreeze) changes.

### **Cooling System Pressure Cap**

The cap must be fully tightened to prevent loss of engine coolant (antifreeze), and to ensure that engine coolant (antifreeze) will return to the radiator from the coolant recovery bottle.

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

**WARNING!**

- The warning words “DO NOT OPEN HOT” on the cooling system pressure cap are a safety precaution. Never add engine coolant (antifreeze) 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.

**Disposal of Used Engine Coolant**

Used ethylene glycol-based engine coolant (antifreeze) 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 engine coolant (antifreeze) 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.

**Coolant Level**

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

The radiator normally remains completely full, so there is no need to remove the radiator cap unless checking for engine coolant (antifreeze) freeze point or replacing engine coolant (antifreeze). Advise your service attendant of this. As long as the engine operating temperature is satisfactory, the coolant bottle only needs to be checked once a month.

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

### Points To Remember

**NOTE:** When the vehicle is stopped after a few miles (a few kilometers) of operation, you may observe vapor coming from the front of the engine compartment. This is normally a result of moisture from rain, snow, or high humidity accumulating on the radiator and being vaporized when the thermostat opens, allowing hot engine coolant (antifreeze) to enter the radiator.

If an examination of your engine compartment shows no evidence of radiator or hose leaks, the vehicle may be safely driven. The vapor will soon dissipate.

- Do not overfill the coolant recovery bottle.
- Check the engine coolant (antifreeze) freeze point in the radiator and in the coolant recovery bottle. If

engine coolant (antifreeze) needs to be added, the contents of the coolant recovery bottle must also be protected against freezing.

- If frequent engine coolant (antifreeze) 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 engine coolant (antifreeze) concentration at 50% HOAT engine coolant (antifreeze) (minimum) and distilled water for proper corrosion protection of your engine, which contains aluminum components.
- Make sure that the radiator and coolant recovery bottle overflow hoses are not kinked or obstructed.
- Keep the front of the radiator clean. If your vehicle is equipped with air conditioning, keep the front of the condenser clean.



- Do not change the thermostat for Summer or Winter operation. If replacement is ever necessary, install **ONLY** the correct type thermostat. Other designs may result in unsatisfactory coolant performance, poor gas mileage, and increased emissions.

## Brake System

### Master Cylinder — Brake Fluid Level Check

The fluid level of the master cylinder should be checked when performing under the hood service, or immediately if the brake system warning lamp indicates system failure.

The brake master cylinder has a translucent plastic reservoir. On the outboard side of the reservoir, there is a “FULL” mark and an “ADD” mark. The fluid level must be kept within these two marks. Do not add fluid above the “FULL” mark, because leakage may occur at the cap.

With disc brakes the fluid level can be expected to fall as the brake linings wear. However, an unexpected drop in fluid level may be caused by a leak and a system check should be conducted.

Refer to “Fluids, Lubricants, and Genuine Parts” in this section for the correct fluid type.

### WARNING!

- Use of a brake fluid that may have a lower initial boiling point, or is unidentified as to specification, may result in sudden brake failure during hard prolonged braking. You could have an accident.
- Overfilling the brake fluid reservoir can result in spilling brake fluid on hot engine parts and the brake fluid catching fire.

*(Continued)*

**WARNING! (Continued)**

- Use only brake fluid that has been in a tightly-closed container to avoid contamination from foreign matter or moisture.

**CAUTION!**

Do not allow a petroleum-base fluid to contaminate the brake fluid. Seal damage may result.

**Rear Axle And 4x4 Front Driving Axle Fluid Level**

For normal service, periodic fluid level checks are not required. When the vehicle is serviced for other reasons the exterior surfaces of the axle assembly should be inspected. If gear oil leakage is suspected inspect the fluid level. Refer to "Fluids, Lubricants, and Genuine Parts" in this section for the correct fluid type.

This inspection should be made with the vehicle in a level position. The fluid level should be even with the bottom of the fill hole for the manufacturer's C205F HD front axles. The fluid level should be 5/8 in (16 mm) below the fill hole on 9 1/4 in manufacturer's rear axles.

For all 2500/3500 Model axles, the fluid level should be 1/4"  $\pm$  1/4 in (6.4 mm  $\pm$  6.4 mm) below the fill hole on the 9.25 in front and 3/4 in  $\pm$  1/4 in (19 mm  $\pm$  6.4 mm) on 10.5 in rear axles. The 11.5 in rear axle level should be 1/4 in  $\pm$  1/4 in (6.4 mm  $\pm$  6.4 mm) below the fill hole.

**Drain and Refill**

Refer to the "Maintenance Schedule" in Section 8 for the proper maintenance intervals.

**Lubricant Selection**

Refer to "Fluids, Lubricants, and Genuine Parts" in this section for the correct fluid type.

**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.

2500/3500 Model Axles **DO NOT REQUIRE** any limited slip oil additive (friction modifiers).

### **Transfer Case**

#### **Drain And Refill**

Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals.

#### **Lubricant Selection**

Refer to “Fluids, Lubricants, and Genuine Parts” in this section for the correct fluid type.

### **Fluid Level Check**

This fluid level can be checked by removing the filler plug. The fluid level should be to the bottom edge of the filler plug hole with the vehicle in a level position.

### **Automatic Transmission**

#### **Selection Of Lubricant**

It is important that the proper lubricant is used in the transmission to assure optimum transmission performance. Use only the manufacturer’s recommended transmission fluid. Refer to “Fluids, Lubricants, and Genuine Parts” in this section for the correct fluid type. It is important that the transmission fluid be maintained at the prescribed level using the recommended fluid. No chemical flushes should be used in any transmission; only the approved lubricant may be used.

**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" in this section for correct fluid type.

**Fluid Level Check**

If your vehicle is equipped with a dipstick, use the following procedure. If your vehicle has a capped dipstick 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. The fluid level should be checked when the engine is fully warmed up and the

fluid in the transmission is at normal operating temperature. Operation of the transmission with an improper fluid level will greatly reduce the life of the transmission and of the fluid. Check the fluid level whenever the vehicle is serviced.

**Fluid Level Check – 545RFE**

Check the fluid level while the transmission is at normal operating temperature 82°C (180°F). This occurs after at least 15 miles (25 km) of driving. At normal operating temperature the fluid cannot be held comfortably between the fingertips.

To check the automatic transmission fluid level properly, the following procedure must be used:

1. Operate the engine at idle speed and normal operating temperature.
2. The vehicle must be on level ground.

3. Fully apply the parking brake and press the brake pedal.
4. Place the shift lever momentarily into each gear position ending with the lever in PARK.
5. Remove the dipstick, wipe it clean and reinsert it until seated.
6. Remove the dipstick again and note the fluid level on both sides. The fluid level should be between the "HOT" (upper) reference holes on the dipstick at normal operating temperature. Verify that solid coating of oil is seen on both sides of the dipstick. If the fluid is low, add as required into the dipstick tube. **Do not overfill.** After adding any quantity of oil through the oil fill tube, wait a minimum of two minutes for the oil to fully drain into the transmission before rechecking the fluid level.

**NOTE:** If it is necessary to check the transmission **below** the operating temperature, the fluid level should be

between the two "COLD" (lower) holes on the dipstick with the fluid at approximately 70°F (21°C) (room temperature). If the fluid level is correctly established at room temperature, it should be between the "HOT" (upper) reference holes when the transmission reaches 180°F (82°C). Remember it is best to check the level at the normal operating temperature.

### CAUTION!

**Be aware that if the fluid temperature is below 50°F (10°C) it may not register on the dipstick. Do not add fluid until the temperature is elevated enough to produce an accurate reading.**

7. Check for leaks. Release parking brake.

To prevent dirt and water from entering the transmission after checking or replenishing fluid, make certain that the dipstick cap is properly reseated. It is normal for the

dipstick cap to spring back slightly from its fully seated position, as long as its seal remains engaged in the dipstick tube.

### **Automatic Transmission Fluid and Filter Change**

Refer to the “Maintenance Schedule” in Section 8 for the proper maintenance intervals.

**NOTE:** If the transmission is disassembled for any reason, the fluid and filter(s) should be changed.

It is important that the proper lubricant is used in the transmission. Refer to “Fluids, Lubricants, and Genuine Parts” in this section for the correct fluid type.

### **Special Additives**

Automatic Transmission Fluid (ATF) 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.

### **Appearance Care and Protection from Corrosion**

#### **Protection of Body and Paint from Corrosion**

Vehicle body care requirements vary according to geographic locations and usage. Chemicals that make roads passable in snow and ice, and those that are sprayed on trees and road surfaces during other seasons, are highly corrosive to the metal in your vehicle. Outside parking, which exposes your vehicle to airborne contaminants, road surfaces on which the vehicle is operated, extreme hot or cold weather and other extreme conditions will have an adverse affect on paint, metal trim, and underbody protection.

The following maintenance recommendations will enable you to obtain maximum benefit from the corrosion resistance built into your vehicle.

### What Causes Corrosion?

Corrosion is the result of deterioration or removal of paint and protective coatings from your vehicle.

The most common causes are:

- Road salt, dirt and moisture accumulation.
- Stone and gravel impact.
- Insects, tree sap and tar.
- Salt in the air near seacoast localities.
- Atmospheric fallout/industrial pollutants.

### Washing

- Wash your vehicle regularly. Always wash your vehicle in the shade using MOPAR® Car Wash or 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, use MOPAR® Super Kleen Bug and Tar Remover to remove.
- Use MOPAR® Cleaner Wax to remove road film, stains and to protect your paint finish. 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.**

## Special Care

- If you drive on salted or dusty roads, or if you drive near the ocean, hose off the undercarriage at least once a month.
- It is important that the drain holes in the lower edges of the doors, rocker panels and trunk be kept clear and open.
- If you detect any stone chips or scratches in the paint, touch them up immediately. The cost of such repairs is considered the responsibility of the owner.
- If your vehicle is damaged due to an accident or similar cause which destroys the paint and protective coating, have your vehicle repaired as soon as possible. The cost of such repairs is considered the responsibility of the owner.

- If you carry special cargo such as chemicals, fertilizers, de-icer salt, etc., be sure that such materials are well packaged and sealed.
- If a lot of driving is done on gravel roads, consider mud or stone shields behind each wheel.
- Use MOPAR® Touch Up Paint on scratches as soon as possible. Your authorized dealer has touch up paint to match the color of your vehicle.

## Wheel and Wheel Trim Care

All wheels and wheel trim, especially aluminum and chrome plated wheels should be cleaned regularly with a mild soap and water to prevent corrosion. To remove heavy soil and/or excessive brake dust, use MOPAR® Wheel Cleaner (05066247AB) or equivalent, or select a nonabrasive, non-acidic cleaner. Do not use scouring pads, steel wool, a bristle brush, or metal polishes. Only MOPAR® or equivalent is recommended. Do not use



oven cleaner. Avoid automatic car washes that use acidic solutions or harsh brushes that may damage the wheels' protective finish.

### **Stain Repel Fabric Cleaning Procedure — If Equipped**

You can identify if your vehicle has Stain Repel Seat Fabric that makes spills easy to clean, reduces odor from spills and reduces static by the presence of a tag on the side of the seat.

Stain Repel seats may be cleaned in the following manner:

- Remove as much of the stain as possible by blotting with a clean, dry towel.
- Blot any remaining stain with a clean, damp towel.
- For tough stains, apply MOPAR® Total Clean or a mild soap solution to a clean, damp cloth and remove the stain. Use a fresh, damp towel to remove soap residue.

- For grease stains, apply MOPAR® Multi-Purpose Cleaner to a clean, damp cloth and remove the stain. Use a fresh, damp towel to remove soap residue.
- Do not use any solvents or protectants on Stain Repel products.

### **Interior Care**

Use MOPAR® Total Clean to clean fabric upholstery and carpeting.

Use MOPAR® Total Clean to clean vinyl upholstery.

MOPAR® Total Clean is specifically recommended for leather upholstery.

Your leather upholstery can be best preserved by regular cleaning with a damp soft cloth. Small particles of dirt can act as an abrasive and damage the leather upholstery and should be removed promptly with a damp cloth. Stubborn soils can be removed easily with a soft cloth and MOPAR® Total Clean. Care should be taken to avoid

soaking your leather upholstery with any liquid. Please do not use polishes, oils, cleaning fluids, solvents, detergents, or ammonia-based cleaners to clean your leather upholstery. Application of a leather conditioner is not required to maintain the original condition.

### **WARNING!**

**Do not use volatile solvents for cleaning purposes. Many are potentially flammable, and if used in closed areas they may cause respiratory harm.**

### **Cleaning Headlights**

Your vehicle has plastic headlights that are lighter and less susceptible to stone breakage than glass headlights.

Plastic is not as scratch resistant as glass and therefore different lens cleaning procedures must be followed.

To minimize the possibility of scratching the lenses and reducing light output, avoid wiping with a dry cloth. To remove road dirt, wash with a mild soap solution followed by rinsing.

Do not use abrasive cleaning components, solvents, steel wool or other aggressive material to clean the lenses.

### **Glass Surfaces**

All glass surfaces should be cleaned on a regular basis with MOPAR® Glass Cleaner or any commercial household-type glass cleaner. Never use an abrasive type cleaner. Use caution when cleaning the inside rear window equipped with electric defrosters or the right rear quarter window equipped with the radio antenna. Do not use scrapers or other sharp instruments which may scratch the elements. When cleaning the rearview mirror, spray cleaner on the towel or rag that you are using. Do not spray cleaner directly on the mirror.

### **Cleaning Plastic Instrument Cluster Lenses**

The lenses in front of the instruments in this vehicle are molded in clear plastic. When cleaning the lenses, care must be taken to avoid scratching the plastic.

1. Clean with a wet, soft rag. A mild soap solution may be used, but do not use high alcohol content or abrasive cleaners. If soap is used, wipe clean with a clean damp rag.
2. Dry with a soft tissue.

### **Seat Belt Maintenance**

Do not bleach, dye or clean the belts with chemical solvents or abrasive cleaners. This will weaken the fabric. Sun damage can also weaken the fabric.

If the belts need cleaning, use a mild soap solution or lukewarm water. Do not remove the belts from the car to wash them.

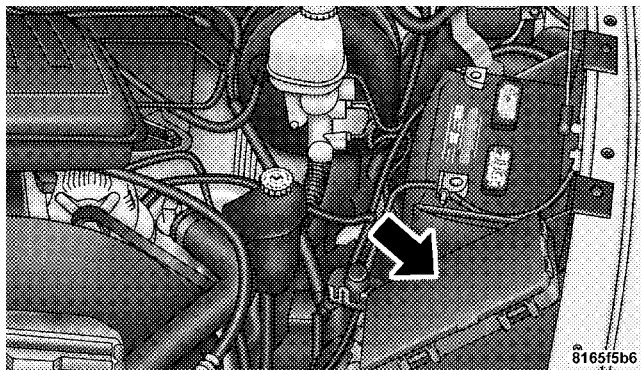
Replace the belts if they appear frayed or worn or if the buckles do not work properly.

Dry with a soft tissue.

## FUSES

### Integrated Power Module

The integrated power module is located in the engine compartment near the battery. This center contains cartridge fuses and mini fuses. 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.



Integrated Power Module

Cavity	Cartridge Fuse	Mini Fuse	Description
1		20 Amp Yellow	Power Outlet Console
2		20 Amp Yellow	Cabin Compartment Node (CCN) Door Locks
3		—	—
4		15 Amp Blue	Aisin Transmission Controls (Diesel Only)
5		20 Amp Yellow	Power Sunroof
6		10 Amp Red	Vistronic Fan/Wastegate Solenoid
7		—	—
8		10 Amp Red	Heated Mirrors

Cavity	Cartridge Fuse	Mini Fuse	Description
9	30 Amp Pink		Off Road Module Power
10		5 Amp Orange	Trx-Off Rd Pkg Sen (Gas Engine Only) <b>NOTE: Insert 5 amp fuse in this cavity to enable the TRX capability (If Equipped).</b>
11		20 Amp Yellow	Ignition Off Draw (IOD)-Cabin Compartment Node (CCN)/Radio/Under Hood Lamp/Wireless Control Module (WCM)/Satellite Digital Audio Receiver (SDARS)/Hands Free Module (HFM)/EOM

Cavity	Cartridge Fuse	Mini Fuse	Description
12	30 Amp Pink		Electric Brake
13		25 Amp Natural	Power-Battery RWAL/ABS Module Feed
14		15 Amp Blue	Park Lights Left
15		20 Amp Yellow	Trailer Park Lights
16		15 Amp Blue	Park Lights Right
17		—	—
18	40 Amp Green		ABS Pump
19	30 Amp Pink		Trailer Tow Battery Feed

Cavity	Cartridge Fuse	Mini Fuse	Description
20		10 Amp Red	Occupant Restraints Controller (ORC) 2
21		10 Amp Red	Occupant Restraints/Pass Disable Switch
22		2 Amp Gray	IGN Switch Feed
23		10 Amp Red	HVAC
24	20 Amp Blue		AISIN Relay Feed (Diesel Only)
25		10 Amp Red	Power Mirror/T-Case Brake
26		20 Amp Yellow	Brake Switch/Center High Mount Stop Light (CHMSL)/Aftermarket CHMSL

Cavity	Cartridge Fuse	Mini Fuse	Description
27	40 Amp Green		Power Seats
28		10 Amp Red	Power Run/Start-PCM/Steering Angle Sensor
29		10 Amp Red	4X4 Switch/Pass Dr Switch/EC Mirror
30		15 Amp Blue	Power Run/Start-ABS/RWAL/Smart Bar/YAW Sensor/Universal Exhaust Gas Oxygen (Uego) Sensor Controller
31		10 Amp Red	PCM (Gas)/TCM (Diesel 58RFE)

Cavity	Cartridge Fuse	Mini Fuse	Description
32		10 Amp Red	Power Ignition Run — Adjustable Pedals LED
33		10 Amp Red	Power-IGN Run — HVAC
34		—	—
35		15 Amp Blue	Cabin Compartment Node (CCN) Illumination
36		25 Amp Natural	Audio_Amplifier
37		15 Amp Blue	Variable Gate Turbo (VGT) — Turbo Diesel
38		20 Amp Yellow	Power Outlet IP

Cavity	Cartridge Fuse	Mini Fuse	Description
39		10 Amp Red	Seatbelt Tension Reducer/Power IGN Run/Acc
40		20 Amp Yellow	Power IGN Run/Acc — Cigar Lighter/Rear Power Point
41		—	—
42	30 Amp Pink		Diesel PCM (Diesel Only)

### CAUTION!

- When installing the Integrated Power Module cover, it is important to ensure the cover is properly positioned and fully latched. Failure to do so may allow water to get into the Integrated Power Module, and possibly result in a electrical system failure.
- 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 indicates a problem in the circuit that must be corrected.



## VEHICLE STORAGE

If you are storing your vehicle for more than 21 days, we recommend that you take the following steps to minimize the drain on your vehicle's battery:

- Disconnect the Ignition-Off Draw (IOD) fuse located in the Integrated Power Module, located in the engine compartment. The IOD cavity includes a snap-in retainer that allows the fuse to be disconnected without removing it from the fuse block.
- The electronic shift transfer case should be placed in the 4HI mode and kept in this position to minimize the battery drain.
- As an alternative to the above steps you may disconnect the negative cables from both batteries.
- Any time you store your vehicle or keep it out of service (i.e., vacation) for two weeks or more, run the air conditioning system at idle for about five minutes

in the fresh air and high blower setting. This will ensure adequate system lubrication to minimize the possibility of compressor damage when the system is started again.

### NOTE:

- When reinstalling the IOD fuse push firmly until fully seated; the gauges in the instrument cluster will do a full sweep when the ignition key is cycled to RUN. This is a normal condition.
- When the vehicle is shipped from the factory, the IOD fuse is in the up or extracted position. If the radio, interior lamps, keyless entry or other features do not work with the key OFF, check the position of the fuse (or check to see if the fuse is blown) to ensure that it is fully seated. When the IOD fuse is extracted, the instrument cluster in the odometer window will display "NO FUSE."

**REPLACEMENT LIGHT BULBS**

<b>LIGHT BULBS — Interior</b>	<b>Bulb No.</b>
Overhead Console Lights . . . . .	TS 212-2
Dome Light . . . . .	7679

**NOTE:** For lighted switches, see your authorized dealer for replacement instructions.

All of the inside bulbs are brass or glass-wedge base. Aluminum base bulbs are not approved.

<b>LIGHT BULBS — Exterior</b>	<b>Bulb No.</b>
Backup . . . . .	3057
Center High Mounted Stop Light . . . . .	912
Fog Light . . . . .	9006LL
Headlight (Halogen) . . . . .	H13
Side Marker, Park & Turn Signal . . . . .	3157NAK
Rear License Plate Light . . . . .	168
Rear Cargo Light . . . . .	912
Tail & Stop . . . . .	3057
Cab Clearance Lights . . . . .	168
Dual Rear Wheel Sidemarkers Light . . . . .	168
Dual Rear Wheel Tailgate ID Lights (3) . . . . .	168

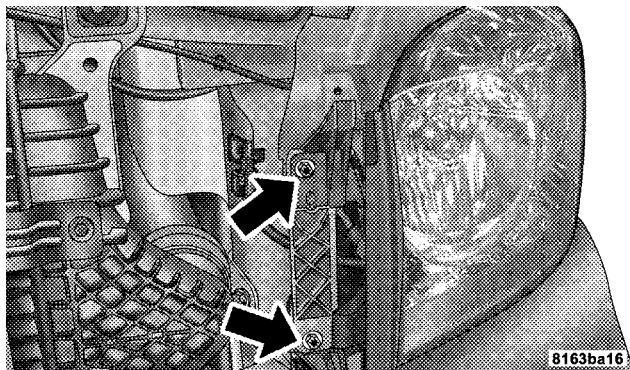
## BULB REPLACEMENT

### Headlight (Halogen)/Front Park and Turn Lights

#### CAUTION!

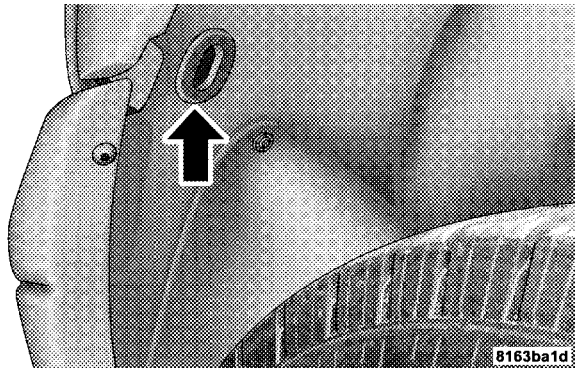
This is a halogen bulb. Avoid touching the glass with your fingers. Reduced bulb life will result.

1. Open the hood
2. Remove the two bolts from the front of the headlight housing.

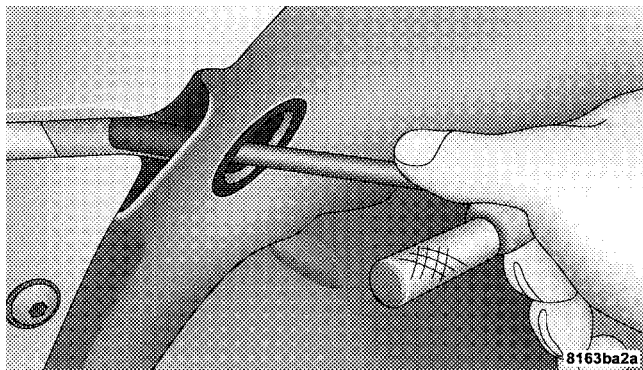


Front Headlight Housing Bolts

3. Remove the plug from the inner fender well and remove the nut through the access hole.



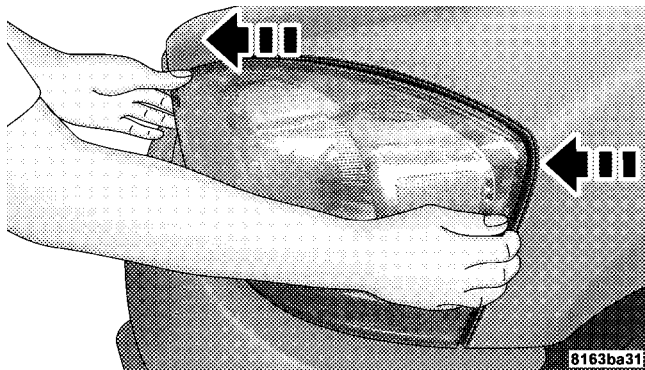
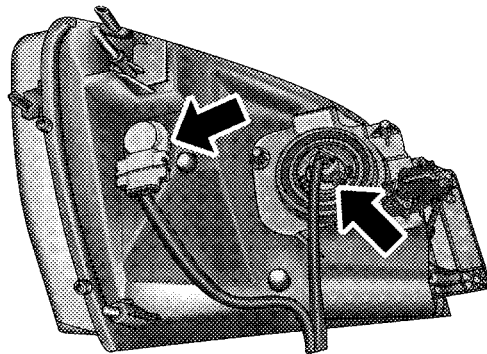
Inner Fender Plug



Rear Headlight Housing Nut Access

4. Pull the housing out from the fender to allow room to disconnect the electrical connectors.

**NOTE:** For easier removal, pull the headlight assembly straight forward, applying the greatest amount of force to the outer edge of the headlight assembly.

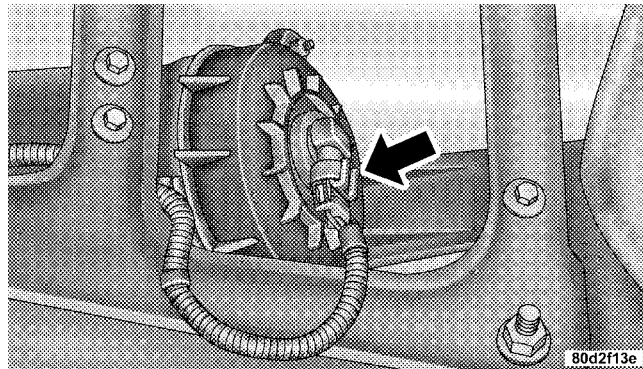
**Headlight Removal****Bulb Removal**

5. Unlock and pull the connector straight from the base of the headlight halogen bulb.
6. Twist the connector on the side marker/turn signal/park light bulb  $\frac{1}{4}$  turn and remove the connector and bulb from housing.

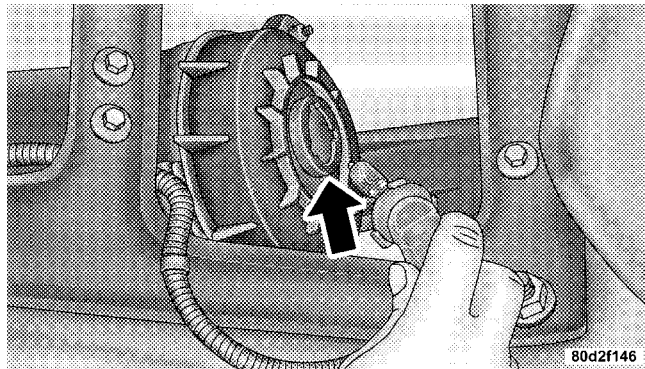
7. Remove the housing from vehicle with the headlight halogen bulb in housing.
8. Twist the headlight halogen bulb  $\frac{1}{4}$  turn and remove the headlight bulb from the housing.
9. Replace headlight or side marker/turn signal/park light bulb. Do not touch the headlight halogen bulb.
10. Reverse the procedure for installation of bulbs and housing.

## Fog Lights

1. Reach under the vehicle, unlock and twist the connector counterclockwise  $\frac{1}{4}$  turn and remove the connector and bulb from the housing.



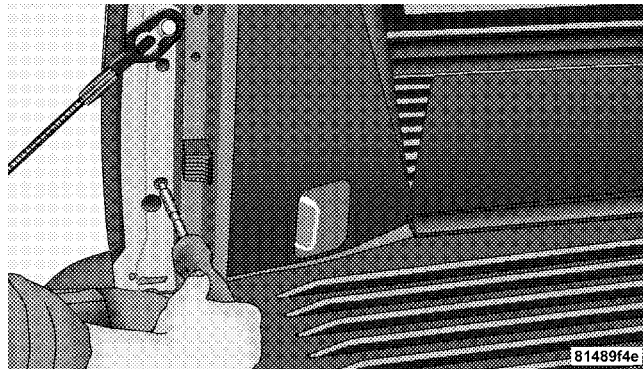
2. Pull the bulb straight from the connector.



3. Reverse the procedure for installation of the bulbs and housing.

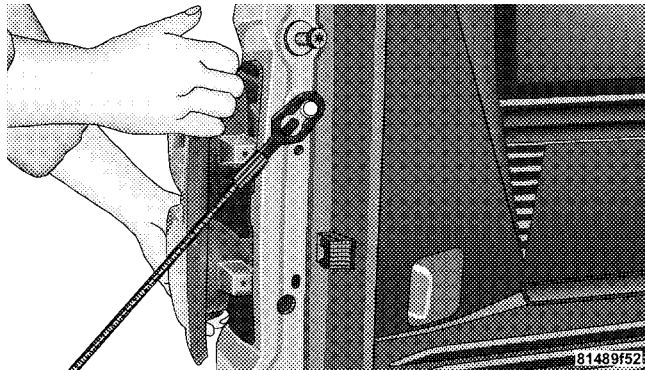
## Tail, Stop, Turn and Backup Lights

1. Remove the two screws that pass through the bed sheetmetal.



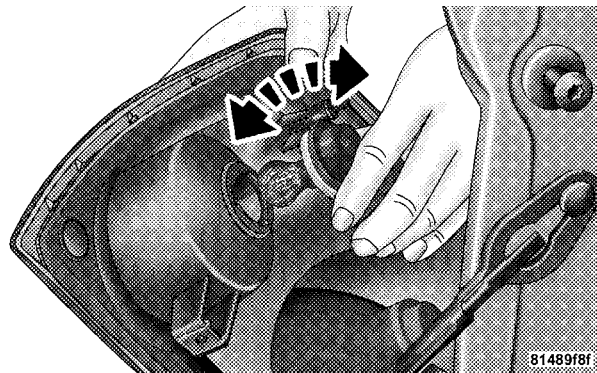
Removing The Two Screws

2. Pull the housing straight out from the body, with a quick motion, to separate the housing from the body. If not pulled straight, locators may be damaged.



Pulling Housing From Body

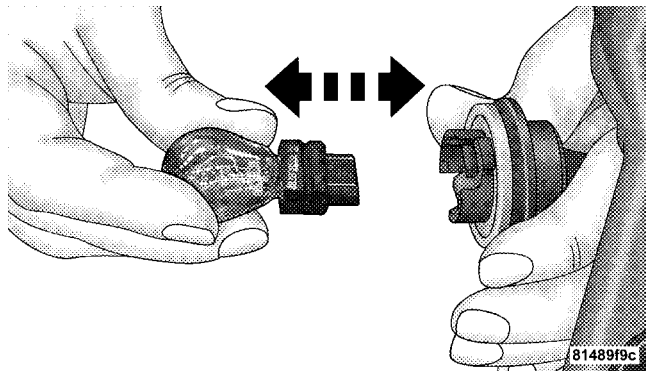
3. Rotate the bulb socket counterclockwise to remove from the housing.



Rotating Bulb Socket From Housing

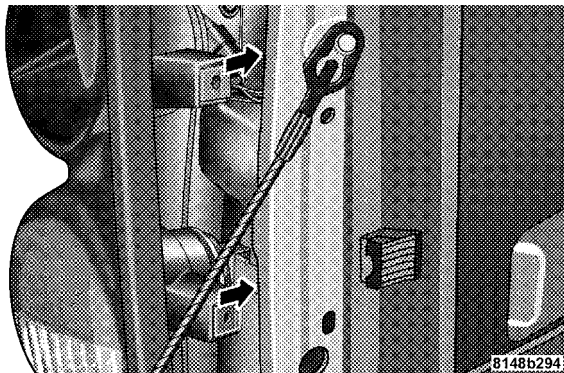


4. Pull the bulb straight out of socket.



Pulling Bulb From Socket

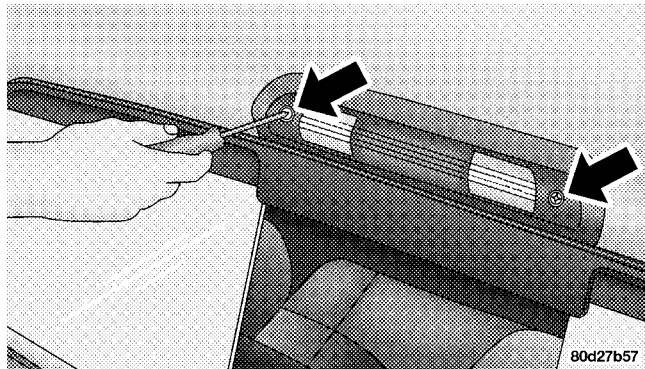
5. Reverse the procedure to install the bulb and housing. Place the two raised blocks past the body.



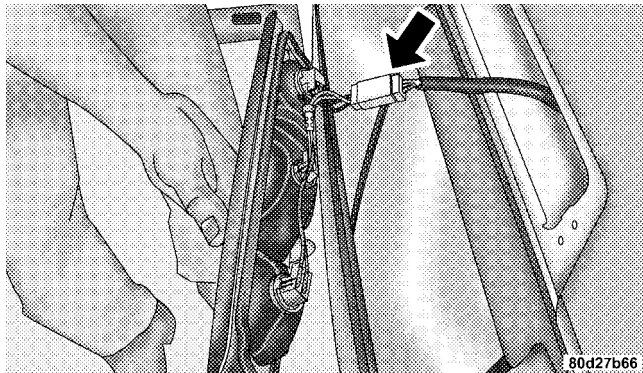
Sliding Raised Blocks Past Body

## Center High-Mounted Stoplight (CHMSL) With Cargo Light

1. Remove the two screws holding the housing/lens to the body as shown.

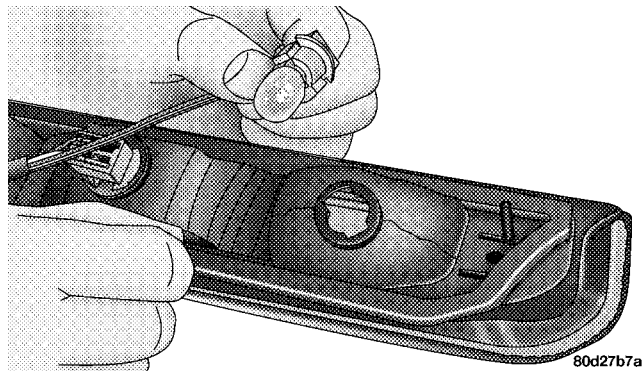


2. Separate the connector holding the housing and wiring harness to the body.



3. Turn the desired bulb socket  $\frac{1}{4}$  turn and remove the socket and bulb from housing.

4. Pull the desired bulb straight from the socket.

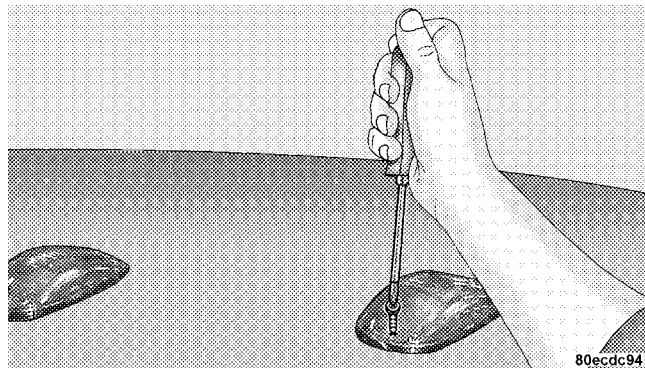


- Outside Bulbs: Cargo Lights
- Inside Bulb: Center High-Mounted Stop Light

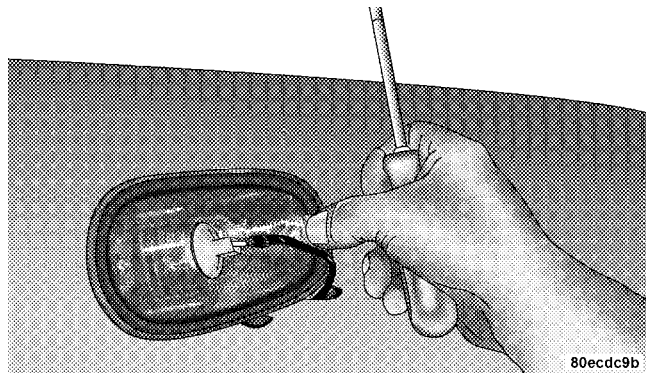
5. Reverse the procedure for installation of the bulbs and housing.

### Cab Top Clearance Lights — If Equipped

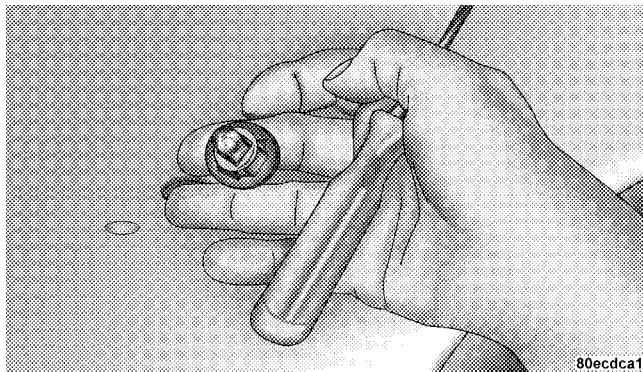
1. Remove the two screws from the top of the light.



2. Rotate the socket  $\frac{1}{4}$  turn and pull it from the light assembly.

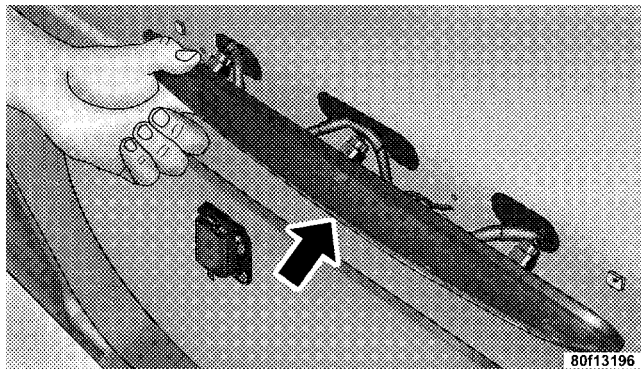
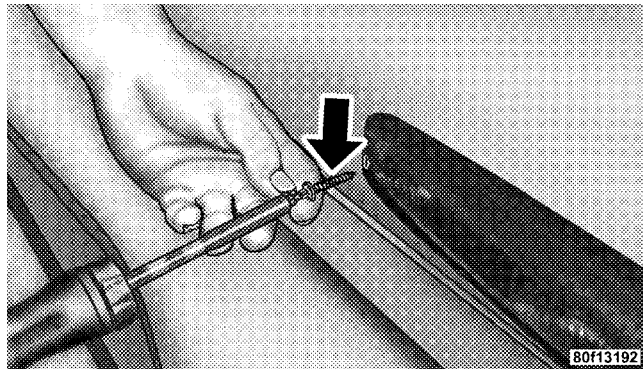


3. Pull the bulb straight from it's socket and replace.

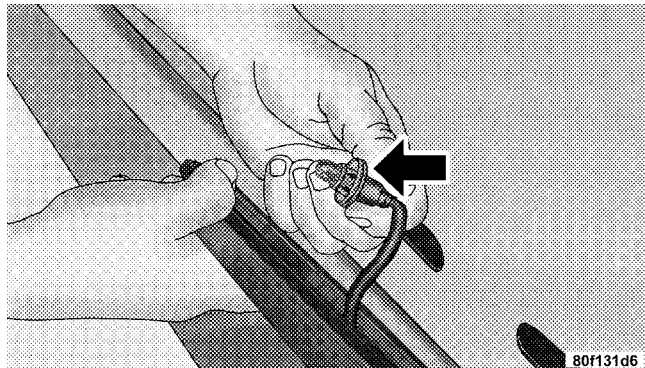


## Tailgate ID Lights (Dual Rear Wheels) — If Equipped

1. Remove the two screws and housing and access the bulb sockets from the rear.



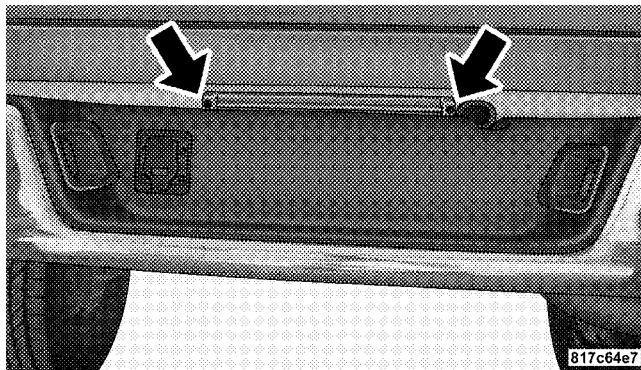
2. Turn the socket  $\frac{1}{4}$  turn counterclockwise to access the bulb.



3. Pull the bulb straight out from socket.
4. Reverse the procedure for installation of the bulbs and housing.

### Rear Light Bar ID Marker (Dual Rear Wheel) — If Equipped

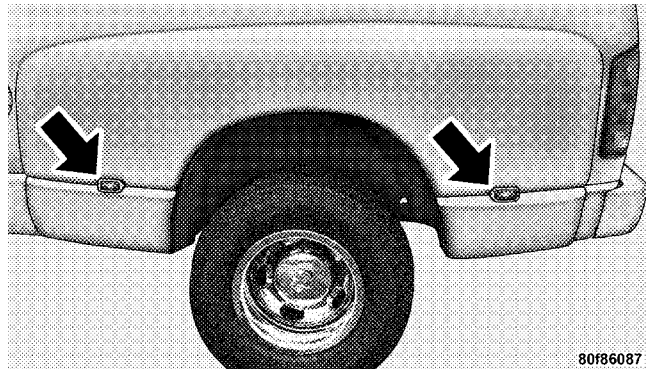
1. Loosen the two screws and the housing to gain access to the bulb sockets.



2. Turn the socket  $\frac{1}{4}$  turn counterclockwise to access the bulb.

3. Pull the bulb straight out from the socket.
4. Reverse the procedure for installation of the bulbs and housing.

### Side Marker Lights (Dual Rear Wheels)



1. Push rearward on the side marker light assembly.
2. Pull the entire assembly from the fender.
3. Turn the socket  $\frac{1}{4}$  turn counterclockwise and remove from assembly to access the bulb.
4. Pull the bulb straight out from socket.
5. Reverse the procedure for installation of the bulbs and housing.

## FLUIDS AND CAPACITIES

	U.S.	Metric
<b>Fuel (Approximate)</b>		
2500/3500 Shortbed Models	34 Gallons	129 Liters
2500/3500 Longbed Models	35 Gallons	132 Liters
<b>Engine Oil with Filter</b>		
5.7L Engine (SAE 5W-20, API Certified). For trucks operating under a gross combined weight rating <b>less</b> than 14,000 lbs (6 350 kg).	7 Quarts	6.6 Liters
5.7L Engine (SAE 5W-30, API Certified). For 2500/3500 trucks operating under a gross combined weight rating <b>greater</b> than 14,000 lbs (6 350 kg).	7 Quarts	6.6 Liters
<b>Cooling System</b>		
5.7L Engine (MOPAR® Antifreeze/Coolant 5 Year/100,000 Mile Formula)	18.7 Quarts	17.7 Liters



## FLUIDS, LUBRICANTS AND GENUINE PARTS

### Engine

Component	Fluid, Lubricant, or Genuine Part
Engine Coolant	MOPAR® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology)
Engine Oil — 5.7L Engine (For trucks operating under a gross combined weight rating <b>less</b> than 14,000 lbs/(6,350 kg.))	Use API Certified SAE 5W-20 Engine Oil, meeting the requirements of Chrysler Material Standard MS-6395. Refer to your engine oil filler cap for correct SAE grade.
Engine Oil — 5.7L Engine (For 2500/3500 trucks operating under a gross combined weight rating <b>greater</b> than 14,000 lbs/(6,350 kg.))	Use API Certified SAE 5W-30 Engine Oil, meeting the requirements of Chrysler Material Standard MS-6395. Refer to your engine oil filler cap for correct SAE grade.
Engine Oil Filter	MOPAR® Engine Oil Filter (P/N 04884899AB) or equivalent
Spark Plugs (5.7L Engine)	LZFR5C-11 (Gap 0.043 in [1.09 mm])
Fuel Selection (5.7L Engine)	87 Octane Acceptable - 89 Octane Recommended

**Chassis**

<b>Component</b>	<b>Fluid, Lubricant, or Genuine Part</b>
Automatic Transmission	MOPAR® ATF+4 Automatic Transmission Fluid
Transfer Case	MOPAR® ATF+4 Automatic Transmission Fluid
NVG 246 Automatic Transfer Case Only	MOPAR® PN 05179014AA, NVG 246 Automatic Transmission Fluid or equivalent
2500/3500 Model Front and Rear Axle	Synthetic, GL-5 SAE, 75W-90 or equivalent. Limited-Slip 10.5/11.5 inch Rear Axles <b>Limited slip additive is not required.</b>
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	MOPAR® ATF+4 Automatic Transmission Fluid

# MAINTENANCE SCHEDULES

## CONTENTS

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<p>■ Emissions Control System Maintenance . . . . . 482</p> <p>■ Maintenance Schedule . . . . . 483</p>	<p>□ Required Maintenance Intervals . . . . . 484</p>
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**EMISSIONS CONTROL SYSTEM MAINTENANCE**

The Scheduled Maintenance services listed in **bold type** must be done at the times or mileages specified to ensure the continued proper functioning of the emissions control system. These and all other maintenance services included in this manual, should be done to provide best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating conditions, such as dusty areas and very short trip driving.

Inspection and service should also be done anytime a malfunction is suspected.

**NOTE:** Maintenance, replacement or repair of the emissions control devices and systems on your vehicle may be performed by any automotive repair establishment or individual using any automotive part that has been certified pursuant to U.S. EPA or in the State of California, California Air Resources Board regulations.

## MAINTENANCE SCHEDULE

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

The “Change Oil” message 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 miles (805 km).

### NOTE:

- The oil change indicator message will not monitor the time since the last oil change. Change your vehicles oil if it has been six 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 miles (10 000 km) or six months, whichever comes first.

Your 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 dealer the message can be reset by referring to the steps described under “Odometer/Trip Odometer” under “Instrument Cluster Description” in Section 4 of this manual.

*At Each Stop for Fuel*

- Check the engine oil level about 5 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.
- Inspect the battery, clean and tighten the terminals as required.
- Check the fluid levels of the coolant reservoir, brake master cylinder, power steering and transmission and 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.

<b>CAUTION!</b>
<b>Failure to perform the required maintenance items may result in damage to the vehicle.</b>

**Required Maintenance Intervals**

Refer to the Maintenance Schedules on the following pages for the required maintenance intervals.

**6,000 Miles (10,000 km) or 6 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
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**12,000 Miles (20,000 km) or 12 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the CV joints. Perform the first inspection at 12,000 miles (20 000 km) or 12 months.
- Inspect exhaust system. Perform the first inspection at 12,000 miles (20 000 km) or 12 months.

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**18,000 Miles (30,000 km) or 18 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid.  
Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**24,000 Miles (40,000 km) or 24 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the CV joints.
- Inspect exhaust system.

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

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### 30,000 Miles (50,000 km) or 30 Months Maintenance Service Schedule

- Change the engine oil and engine oil filter.
- Rotate tires.
- Replace the engine air cleaner filter.
- Replace the spark plugs (5.7L engine).**
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the transfer case fluid.

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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### 36,000 Miles (60,000 km) or 36 Months Maintenance Service Schedule

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid. Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**42,000 Miles (70,000 km) or 42 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

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 Odometer Reading Date

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 Repair Order # Dealer Code

\_\_\_\_\_  
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**48,000 Miles (80,000 km) or 48 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the CV Joints.
- Inspect exhaust system.

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 Odometer Reading Date

\_\_\_\_\_  
 Repair Order # Dealer Code

\_\_\_\_\_  
 Signature Authorized Chrysler Dealer

**54,000 Miles (90,000 km) or 54 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid.  
Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**60,000 Miles (100,000 km) or 60 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Replace the engine air cleaner filter.
- Replace the spark plugs (5.7L engine).**
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Change the automatic transmission fluid & filter(s) if using your vehicle for any of the following: police, taxi, fleet or frequent trailer towing.
- Inspect the transfer case fluid.
- Flush and replace the engine coolant at 60 months if not done at 102,000 miles (170 000 km).

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Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**66,000 Miles (110,000 km) or 66 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

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 Odometer Reading Date

\_\_\_\_\_  
 Repair Order # Dealer Code

\_\_\_\_\_  
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**72,000 Miles (120,000 km) or 72 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid. Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.
- Inspect the CV Joints.
- Inspect exhaust system.

\_\_\_\_\_  
 Odometer Reading Date

\_\_\_\_\_  
 Repair Order # Dealer Code

\_\_\_\_\_  
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**78,000 Miles (130,000 km) or  
78 Months Maintenance  
Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**84,000 Miles (140,000 km) or  
84 Months Maintenance  
Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
Signature Authorized Chrysler Dealer

**90,000 Miles (150,000 km) or 90 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Replace the engine air cleaner filter.
- Replace the spark plugs (5.7L engine).**
- Inspect and replace PCV valve if necessary. †**
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid. Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.
- Inspect the transfer case fluid.

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**96,000 Miles (160,000 km) or 96 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the CV Joints.
- Inspect exhaust system.

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**102,000 Miles (170,000 km) or 102 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Flush and replace the power steering fluid.
- Flush and replace the engine coolant if not done at 60 months.

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**108,000 Miles (180,000 km) or 108 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid. Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**114,000 Miles (190,000 km) or 114 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**120,000 Miles (200,000 km) or 120 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Replace the engine air cleaner filter.
- Replace the spark plugs (5.7L engine).**
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) only).
- Inspect the CV Joints.
- Inspect exhaust system.
- Change the automatic transmission fluid & filter(s).
- Inspect the transfer case fluid, change fluid if using your vehicle for any of the following: trailer towing, snow plowing, heavy loading, delivery service (commercial service), off-road, desert operation or more than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C).
- Replace accessory drive belt(s).

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Odometer Reading Date

\_\_\_\_\_

Repair Order # Dealer Code

\_\_\_\_\_

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**126,000 Miles (210,000 km) or  
126 Months Maintenance  
Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid.  
Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**132,000 Miles (220,000 km) or  
132 Months Maintenance  
Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**138,000 Miles (230,000 km) or  
138 Months Maintenance  
Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).

\_\_\_\_\_ Date

\_\_\_\_\_ Dealer Code

\_\_\_\_\_  
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**144,000 Miles (240,000 km) or 144 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.
- Inspect the brake linings, replace if necessary.
- Inspect the front suspension, tie rod ends, and boot seals, replace if necessary.
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the front & rear axle fluid. Change if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing.
- Inspect the CV Joints.
- Inspect exhaust system.

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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**150,000 Miles (250,000 km) or 150 Months Maintenance Service Schedule**

- Change the engine oil and engine oil filter.
- Rotate tires.
- Replace the engine air cleaner filter.
- Replace the spark plugs (5.7L engine).**
- Lube front drive shaft fitting (2500/3500 (4x4) models only).
- Inspect the transfer case fluid.

\_\_\_\_\_  
Odometer Reading Date

\_\_\_\_\_  
Repair Order # Dealer Code

\_\_\_\_\_  
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## 498 MAINTENANCE SCHEDULES

† 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.

# IF YOU NEED CONSUMER ASSISTANCE

## CONTENTS

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■ Suggestions For Obtaining Service For Your Vehicle . . . . .	501	□ Customer Assistance For The Hearing Or Speech Impaired (TDD/TTY) . . . . .	503
□ Prepare For The Appointment . . . . .	501	□ Service Contract . . . . .	503
□ Prepare A List . . . . .	501	■ Warranty Information (U.S. Vehicles Only) . . . . .	504
□ Be Reasonable With Requests . . . . .	501	■ MOPAR® Parts . . . . .	504
■ If You Need Assistance . . . . .	501	■ Reporting Safety Defects . . . . .	504
□ Chrysler LLC Customer Center . . . . .	502	□ In The 50 United States And Washington, D.C. . . . .	504
□ Chrysler Canada Inc. Customer Center . . . . .	502	□ In Canada . . . . .	505
□ In Mexico Contact . . . . .	502	■ Publication Order Forms . . . . .	505

**500 IF YOU NEED CONSUMER ASSISTANCE**

- Department Of Transportation Uniform Tire Quality Grades . . . . . 506
  - Treadwear . . . . . 507

- Traction Grades . . . . . 507
- Temperature Grades . . . . . 508

## **SUGGESTIONS FOR OBTAINING SERVICE FOR YOUR VEHICLE**

### **Prepare For The Appointment**

If you're having warranty work done, be sure to have the right papers with you. Take your warranty folder. All work to be performed may not be covered by the warranty. Discuss additional charges with the service manager. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem.

### **Prepare A List**

Make a written list of your vehicle's problems or the specific work you want done. If you've had an accident or work done that is not on your maintenance log, let the service advisor know.

### **Be Reasonable With Requests**

If you list a number of items and you must have your vehicle by the end of the day, discuss the situation with

the service advisor and list the items in order of priority. At many authorized dealers, you may obtain a rental vehicle at a minimal daily charge. If you need a rental, it is advisable to make these arrangements when you call for an appointment.

### **IF YOU NEED ASSISTANCE**

The manufacturer and its authorized dealers are vitally interested in your satisfaction. We want you to be happy with our products and services.

Warranty service must be done by an authorized dealer. We strongly recommend that you take the vehicle to an authorized dealer. They know you and the vehicle best, and are most concerned that you get prompt and high quality service. The manufacturer's authorized dealers have the facilities, factory-trained technicians, special tools, and the latest information to ensure the vehicle is fixed correctly and in a timely manner.

This is why you should always talk to an authorized dealer's service manager first. Most matters can be resolved with this process.

- If for some reason you are still not satisfied, talk to the general manager or owner of the authorized dealership. They want to know if you need assistance.
- If an authorized dealership is unable to resolve the concern, you may contact the manufacturer's customer center.

Any communication to the manufacturer's customer center should include the following information:

- Owner's name and address
- Owner's telephone number (home and office)
- Authorized dealership name
- Vehicle Identification Number (VIN)
- Vehicle delivery date and mileage

**Chrysler LLC Customer Center**

P.O. Box 21-8004

Auburn Hills, MI 48321-8004

Phone: (800) 992-1997

**Chrysler Canada Inc. Customer Center**

P.O. Box 1621

Windsor, Ontario N9A 4H6

Phone: (800) 465-2001

**In Mexico contact:**

Av. Prolongacion Paseo de la Reforma, 1240

Sante Fe C.P. 05109

Mexico, D. F.

In Mexico City: 5081-7568

Outside Mexico City: 1-800-505-1300



**Customer Assistance For The Hearing Or Speech Impaired (TDD/TTY)**

To assist customers who have hearing difficulties, the manufacturer has installed special TDD (Telecommunication Devices for the Deaf) equipment at its customer center. Any hearing or speech impaired customer, who has access to a TDD or a conventional teletypewriter (TTY) in the United States, can communicate with the manufacturer by dialing 1-800-380-CHRY.

**Service Contract**

You may have purchased a service contract for a vehicle to help protect you from the high cost of unexpected repairs after the manufacturer's New Vehicle Limited Warranty expires. The manufacturer stands behind only the manufacturer's service contracts. If you purchased a manufacturer's service contract, you will receive Plan Provisions and an Owner Identification Card in the mail within three weeks of the vehicle delivery date. If you

have any questions about the service contract, call the manufacturer's Service Contract National Customer Hotline at 1-800-521-9922.

The manufacturer will not stand behind any service contract that is not the manufacturer's service contract. It is not responsible for any service contract other than the manufacturer's service contract. If you purchased a service contract that is not a manufacturer's service contract, and you require service after the manufacturer's New Vehicle Limited Warranty expires, please refer to the contract documents, and contact the person listed in those documents.

We appreciate that you have made a major investment when you purchased the vehicle. An authorized dealer has also made a major investment in facilities, tools, and training to assure that you are absolutely delighted with

the ownership experience. You'll be pleased with their sincere efforts to resolve any warranty issues or related concerns.

### **WARNING!**

**Engine exhaust, some of its constituents, and certain vehicle components contain, or emit, chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm. In addition, certain fluids contained in vehicles and certain products of component wear contain, or emit, chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.**

### **WARRANTY INFORMATION (U.S. Vehicles Only)**

See the Warranty Information Booklet for the terms and provisions of Chrysler Motors LLC warranties applicable to this vehicle.

### **MOPAR® PARTS**

Mopar® fluids, lubricants, parts, and accessories are available from an authorized dealer. They will help keep the vehicle operating at its best.

### **REPORTING SAFETY DEFECTS**

#### **In The 50 United States And Washington, D.C.**

If you believe that your vehicle has a defect that could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the manufacturer.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your authorized dealer, and the manufacturer.

To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-888-327-4236 (TTY: 1-800-424-9153), or go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

### **In Canada**

If you believe that your vehicle has a safety defect, you should contact the Customer Service Department immediately. Canadian customers who wish to report a safety defect to the Canadian government should write to: Transport Canada, Motor Vehicle Defect Investigations and Recalls, 2780 Sheffield Road, Ottawa, Ontario K1B 3V9.

### **PUBLICATION ORDER FORMS**

To order the following manuals, you may use either the website or the phone numbers listed below. Visa, Mastercard, American Express, and Discover orders are accepted. If you prefer mailing your payment, please call for an order form.

**NOTE:** A street address is required when ordering manuals (no P.O. Boxes).

- *Service Manuals*

These comprehensive Service Manuals provide the information that students and professional technicians need in diagnosing/troubleshooting, problem solving, maintaining, servicing, and repairing Chrysler LLC vehicles. A complete working knowledge of the vehicle, system, and/or components is written in straightforward language with illustrations, diagrams, and charts.

- *Diagnostic Procedure Manuals*

Diagnostic Procedure Manuals are filled with diagrams, charts and detailed illustrations. These practical manuals make it easy for students and technicians to find and fix problems on computer-controlled vehicle systems and features. They show exactly how to find and correct problems the first time, using step-by-step troubleshooting and drivability procedures, proven diagnostic tests and a complete list of all tools and equipment.

- *Owner's Manuals*

These Owner's Manuals have been prepared with the assistance of service and engineering specialists to acquaint you with specific Chrysler LLC vehicles. Included are starting, operating, emergency and maintenance procedures as well as specifications, capabilities and safety tips.

*Call toll free at:*

- 1-800-890-4038 (U.S.)
- 1-800-387-1143 (Canada)

Or

*Visit us on the Worldwide Web at:*

- [www.techauthority.com](http://www.techauthority.com)

## **DEPARTMENT OF TRANSPORTATION UNIFORM TIRE QUALITY GRADES**

The following tire grading categories were established by the National Highway Traffic Safety Administration. The specific grade rating assigned by the tire's manufacturer in each category is shown on the sidewall of the tires on your vehicle.

All passenger car tires must conform to Federal safety requirements in addition to these grades.

### **Treadwear**

The Treadwear grade is a comparative rating, based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

### **Traction Grades**

The Traction grades, from highest to lowest, are AA, A, B, and C. These grades represent the tire's ability to stop on wet pavement, as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

#### **WARNING!**

**The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.**

### Temperature Grades

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat, when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance, which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel, than the minimum required by law.

### WARNING!

**The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.**

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# INDEX

- Adding Fuel . . . . . 379
- Adjustable Pedals . . . . . 141
- Air Cleaner, Engine (Engine Air Cleaner Filter) . . . 434
- Air Conditioner Maintenance . . . . . 435
- Air Conditioning Refrigerant . . . . . 435,436
- Air Conditioning System . . . . . 237,435
- Air Conditioning System, Zone Control . . . . . 240
- Air Pressure, Tires . . . . . 355,360
- Airbag . . . . . 34,47,54
- Airbag Light . . . . . 58,75,189
- Airbag On/Off Switch . . . . . 54
- Alarm Light . . . . . 191
- Alarm (Security Alarm) . . . . . 18
- Alarm System (Security Alarm) . . . . . 18
- Alterations/Modifications, Vehicle . . . . . 7
- Antenna, Satellite Radio . . . . . 230
- Antifreeze (Engine Coolant) . . . . . 442,443,478
- Disposal . . . . . 445
- Anti-Lock Brake System (ABS) . . . . . 333
- Anti-Lock Warning Light . . . . . 196,332
- Anti-Theft Security Alarm (Theft Alarm) . . . . . 18
- Anti-Theft System . . . . . 18
- Appearance Care . . . . . 452
- Ashtray . . . . . 164
- Assistance Towing . . . . . 101
- Automatic Dimming Mirror . . . . . 82
- Automatic Transaxle . . . . . 12
- Interlock System . . . . . 14
- Automatic Transmission
- Adding Fluid . . . . . 451
- Fluid and Filter Changes . . . . . 452
- Fluid Level Check . . . . . 449,450
- Fluid Type . . . . . 449,480
- Shifting . . . . . 255
- Special Additives . . . . . 452
- Axle Fluid . . . . . 448,480
- Axle Lubrication (Axle Fluid) . . . . . 448



Bar, Stabilizer/Sway System . . . . .	282	Bulbs, Light . . . . .	76,464
Battery . . . . .	434	Cab Top Clearance Lights . . . . .	473
Emergency Starting . . . . .	419	Calibration, Compass . . . . .	151
Saving Feature (Protection) . . . . .	133	Camper . . . . .	178
Belts, Seat . . . . .	35,75	Capacities, Fluid . . . . .	478
Body Builders Guide . . . . .	6	Caps, Filler	
Body Mechanism Lubrication . . . . .	437	Oil (Engine) . . . . .	432
B-Pillar Location . . . . .	350	Power Steering . . . . .	328
Brake Assist System . . . . .	335	Radiator (Coolant Pressure) . . . . .	444
Brake Control System, Electronic . . . . .	333	Car Washes . . . . .	453
Brake Fluid . . . . .	447,480	Carbon Monoxide Warning . . . . .	74,179,379
Brake System . . . . .	330,447	Cargo Light . . . . .	135
Anti-Lock (ABS) . . . . .	331,333	CD (Compact Disc) Player . . . . .	202,216
Fluid Check . . . . .	447	Cellular Phone . . . . .	86
Master Cylinder . . . . .	447	Center High Mounted Stop Light . . . . .	472
Parking . . . . .	329	Center Lap Belts . . . . .	44
Warning Light . . . . .	194	Center Seat Storage Compartment . . . . .	167,169
Break-In Recommendations, New Vehicle . . . . .	73	Certification Label . . . . .	381
Bulb Replacement . . . . .	465		

- Chart, Tire Sizing . . . . . 347
- Check Engine Light  
(Malfunction Indicator Light) . . . . . 194,429
- Checking Your Vehicle For Safety . . . . . 74
- Checks, Safety . . . . . 74
- Child Restraint . . . . . 60,61
- Child Restraint Tether Anchors . . . . . 64,68
- Child Seat . . . . . 61,67
- Cigar Lighter . . . . . 164
- Cleaning  
    Wheels . . . . . 454
- Climate Control . . . . . 234
- Clock . . . . . 201,204,218,224
- Compact Disc (CD) Maintenance . . . . . 232
- Compass . . . . . 150,151
- Compass Calibration . . . . . 151
- Compass Variance . . . . . 152
- Computer, Trip/Travel . . . . . 146
- Console, Overhead . . . . . 145
- Contract, Service . . . . . 503
- Coolant Pressure Cap (Radiator Cap) . . . . . 444
- Cooling System . . . . . 441  
    Adding Coolant (Antifreeze) . . . . . 443  
    Coolant Capacity . . . . . 478  
    Coolant Level . . . . . 441,445  
    Disposal of Used Coolant . . . . . 445  
    Drain, Flush, and Refill . . . . . 442  
    Inspection . . . . . 445  
    Points to Remember . . . . . 446  
    Pressure Cap . . . . . 444  
    Radiator Cap . . . . . 444  
    Selection of Coolant (Antifreeze) . . . . . 442,478,479
- Cruise Control (Speed Control) . . . . . 142
- Cupholders . . . . . 165
- Customer Assistance . . . . . 501
- Data Recorder, Event . . . . . 58
- Daytime Running Lights . . . . . 134

Dealer Service . . . . .	430	Electric Rear Window Defrost . . . . .	172
Defroster, Rear Window . . . . .	172	Electrical Power Outlets . . . . .	162
Defroster, Windshield . . . . .	76,235,238	Electronic Brake Control System . . . . .	333
Delay (Intermittent) Wipers . . . . .	138	Anti-Lock Brake System . . . . .	333
Differential, Limited-Slip . . . . .	304	Brake Assist System . . . . .	335
Dipsticks		Electronic Roll Mitigation . . . . .	339
Automatic Transmission . . . . .	450	Electronic Stability Program . . . . .	340
Power Steering . . . . .	328	Traction Control System . . . . .	334
Disposal		Electronic Roll Mitigation (ERM) . . . . .	339
Antifreeze (Engine Coolant) . . . . .	445	Electronic Speed Control (Cruise Control) . . . . .	142
Door Locks . . . . .	27	Electronic Stability Program (ESP) . . . . .	197,340
Door Opener, Garage . . . . .	153	Electronically Shifted Transfer Case . . . . .	264,272
Driving		Emergency Brake . . . . .	329
Off-Pavement . . . . .	284	Emergency, In Case of	
Off-Road . . . . .	284	Freeing Vehicle When Stuck . . . . .	421
Through Flowing, Rising, or Shallow Standing		Hazard Warning Flasher . . . . .	406
Water . . . . .	305	Jacking . . . . .	409
Dual Rear Wheels . . . . .	365,416	Jump Starting . . . . .	419
DVD Player (Video Entertainment System™) . . . . .	231	Tow Hooks . . . . .	422

Towing	422	Exhaust System	74,438
Emission Control System Maintenance	429,482	Exterior Lighting	134
Engine	427	Exterior Lights	76
Air Cleaner	434	Filters	
Block Heater	254	Air Cleaner	434
Break-In Recommendations	73	Engine Oil	433,479
Compartment Identification	427	Engine Oil Disposal	433
Coolant (Antifreeze)	479	Flashers	
Exhaust Gas Caution	74,379	Turn Signal	76,136,188
Flooded, Starting	252	Flat Tire Stowage	408,418
Fuel Requirements	478	Flooded Engine Starting	252
Oil	431,478,479	Fluid, Brake	480
Oil Filler Cap	432	Fluid Capacities	478
Oil Selection	432,478	Fluid Leaks	76
Oil Synthetic	433	Fluid Level Checks	
Temperature Gauge	190	Automatic Transmission	450
Equipment Identification Plate	403	Brake	447
Event Data Recorder	58	Power Steering	328
Exhaust Gas Caution	74,179,379,439		

Fluids, Lubricants and Genuine Parts . . . . .	479	Gasoline, Reformulated . . . . .	375
Fog Lights . . . . .	135,193,468	Gauges . . . . .	188
Fold Flat Load Floor . . . . .	174	Coolant Temperature . . . . .	190
Four Wheel Drive . . . . .	260	Fuel . . . . .	200
Four-Way Hazard Flasher . . . . .	406	Oil Pressure . . . . .	190
Freeing A Stuck Vehicle . . . . .	421	Speedometer . . . . .	189
Front Axle (Differential) . . . . .	448	Tachometer . . . . .	189
Fuel . . . . .	375	Voltmeter . . . . .	188
Adding . . . . .	379	Gear Ranges . . . . .	255
Filler Cap (Gas Cap) . . . . .	381	General Information . . . . .	18,114,374
Gauge . . . . .	200	Glass Cleaning . . . . .	456
Octane Rating . . . . .	375,479	Grocery Bag Retainer . . . . .	172
Requirements . . . . .	375,478	Gross Axle Weight Rating . . . . .	384
Tank Capacity . . . . .	478	Gross Vehicle Weight Rating . . . . .	384
Fuses . . . . .	458	Guide, Body Builders . . . . .	6
Garage Door Opener (HomeLink®) . . . . .	153	GVWR . . . . .	381
Gas Cap (Fuel Filler Cap) . . . . .	381,428	Hands-Free Phone (uconnect®) . . . . .	86
Gasoline (Fuel) . . . . .	375		

- Hazard
  - Driving Through Flowing, Rising, or Shallow Standing Water . . . . . 305
- Hazard Warning Flasher . . . . . 406
- Head Restraints . . . . . 123
- Headlights . . . . . 465
  - Cleaning . . . . . 456
  - High Beam . . . . . 137
  - High Beam/Low Beam Select Switch . . . . . 137
  - Lights On Reminder . . . . . 135
  - Passing . . . . . 137
  - Switch . . . . . 134
- Heated Mirrors . . . . . 172
- Heated Seats . . . . . 129
- Heater . . . . . 237
- Heater, Engine Block . . . . . 254
- High Beam/Low Beam Select (Dimmer) Switch . . 137
- Hitches
  - Trailer Towing . . . . . 388
- Hoisting . . . . . 418
- HomeLink® (Garage Door Opener) Transmitter . . . 153
- Hood Release . . . . . 130
- Hub Caps . . . . . 414
- Ignition . . . . . 12
  - Key . . . . . 12
- Ignition Key Removal . . . . . 12
- Illuminated Entry . . . . . 20
- Immobilizer (Sentry Key) . . . . . 15
- Infant Restraint . . . . . 60,61
- Inflation Pressure Tires . . . . . 360
- Inside Rearview Mirror . . . . . 82
- Instrument Cluster . . . . . 186,188
- Instrument Panel and Controls . . . . . 184,185
- Instrument Panel Lens Cleaning . . . . . 457
- Integrated Power Module (Fuses) . . . . . 458
- Interior Appearance Care . . . . . 455
- Interior Lights . . . . . 132

Intermittent Wipers (Delay Wipers) . . . . .	138	Latches . . . . .	76
Introduction . . . . .	4	Leaks, Fluid . . . . .	76
Jack Operation . . . . .	407,409	Life of Tires . . . . .	359
Jacking Instructions . . . . .	407	Light Bulbs . . . . .	76
Jump Starting . . . . .	419	Lights . . . . .	76,132
Key, Programming . . . . .	17	Airbag . . . . .	58,75,189
Key, Replacement . . . . .	16	Alarm . . . . .	191
Key, Sentry (Immobilizer) . . . . .	15	Anti-Lock . . . . .	196
Keyless Entry System . . . . .	20	Anti-Lock Warning . . . . .	332
Keys . . . . .	12	Brake Warning . . . . .	194
Knee Bolster . . . . .	47	Bulb Replacement . . . . .	464,465
Lane Change and Turn Signals . . . . .	136	Cap Top Clearance . . . . .	473
Lap Belts . . . . .	44	Cargo . . . . .	135
Lap/Shoulder Belts . . . . .	35	Center Mounted Stop . . . . .	472
LATCH (Lower Anchors and Tether for Children) . . . . .	64	Courtesy/Reading . . . . .	145
		Cruise . . . . .	200
		Daytime Running . . . . .	134
		Dual Wheel Assembly Rear . . . . .	475

- Electronic Stability Program (ESP)
  - Indicator . . . . . 197,340
- Engine Temperature Warning . . . . . 200
- Exterior . . . . . 76
- Fog . . . . . 135,193,468
- Four-Wheel Drive Indicator . . . . . 264
- Hazard Warning Flasher . . . . . 406
- Headlights . . . . . 134
- High Beam . . . . . 137,189
- High Beam Indicator . . . . . 189
- High Beam/Low Beam Select . . . . . 137
- Illuminated Entry . . . . . 20
- Instrument Cluster . . . . . 188
- Interior . . . . . 132,145
- Lights On Reminder . . . . . 135
- Malfunction Indicator (Check Engine) . . . . . 194
- Oil Pressure . . . . . 201
- Passing . . . . . 137
- Seat Belt Reminder . . . . . 189
- Security Alarm (Theft Alarm) . . . . . 191
- Service . . . . . 464,465
- Service Engine Soon (Malfunction Indicator) . . . . . 194
- Side Marker . . . . . 477
- Theft Alarm (Security Alarm) . . . . . 191
- Tire Pressure Monitoring (TPMS) . . . . . 197
- Traction Control . . . . . 340
- Transfer Case . . . . . 264
- Transmission Warning . . . . . 199
- Turn Signal . . . . . 76,136,465,469
- Voltage . . . . . 201
- Warning (Instrument Cluster Description) . . . . . 188
- Limited-Slip Differential . . . . . 304
- Loading Vehicle . . . . . 381
  - Tires . . . . . 350
- Locks . . . . . 27
  - Child Protection . . . . . 30
  - Door . . . . . 27
  - Keys . . . . . 12



Power Door . . . . .	28	Electric Powered . . . . .	84
Steering Wheel . . . . .	14	Outside . . . . .	83
Lower Anchors and Tether for CHildren (LATCH) . . . . .	64	Rearview . . . . .	82
Lubrication, Body . . . . .	437	Trailer Towing . . . . .	85
Lug Nuts . . . . .	414	Modifications/Alterations, Vehicle . . . . .	7
Lumbar Support . . . . .	123	Monitor, Tire Pressure System . . . . .	366
Maintenance . . . . .	431	Mopar Parts . . . . .	430,504
Maintenance Free Battery . . . . .	434	Multi-Function Control Lever . . . . .	136
Maintenance Procedures . . . . .	431	Navigation Radio (uconnect® gps) . . . . .	224
Maintenance Schedule . . . . .	483	Navigation System (uconnect® gps) . . . . .	224
Malfunction Indicator Light (Check Engine) . . .	194,429	New Vehicle Break-In Period . . . . .	73
Manual, Service . . . . .	505	Occupant Restraints . . . . .	34
Manual Transmission		Octane Rating, Gasoline (Fuel) . . . . .	375
Fluid Level Check . . . . .	449	Odometer . . . . .	192,199
Lubricant Selection . . . . .	480	Trip . . . . .	192,199
Mirrors . . . . .	82	Off-Pavement Driving (Off-Road) . . . . .	284,307
Automatic Dimming . . . . .	82	Off-Road Driving (Off-Pavement) . . . . .	284,307

Oil Change Indicator	193	Outside Rearview Mirrors	83
Oil Change Indicator, Reset	193	Overdrive	257
Oil, Engine	431,479	Overdrive OFF Switch	257
Capacity	478	Overhead Console	145,146
Change Interval	432	Overhead Travel Information Center	146
Dipstick	431	Overheating, Engine	191
Disposal	433	Owner's Manual (Operator Manual)	4,505
Filter	433,479		
Filter Disposal	433	Parking Brake	329
Identification Logo	432	Passenger Airbag On/Off Switch	54
Materials Added to	433	Passing Light	137
Pressure Gauge	190	Pedals, Adjustable	141
Recommendation	432,478	Pets	73
Synthetic	433	Pets, Transporting	73
Viscosity	432,478	Phone, Cellular	86
Onboard Diagnostic System	428,429	Phone, Hands-Free (uconnect®)	86
Opener, Garage Door (HomeLink®)	153	Pickup Box	176
Operating Precautions	428	Placard, Tire and Loading Information	350
Operator Manual (Owner's Manual)	4		

Power		Radio Operation . . . . .	202,216
Door Locks . . . . .	28	Radio Remote Controls . . . . .	231
Mirrors . . . . .	84	Radio, Satellite (uconnect® studios) . . . . .	224,227
Outlet (Auxiliary Electrical Outlet) . . . . .	162	Radio (Sound Systems) . . . . .	202,216
Seats . . . . .	124	Ramp Travel Index . . . . .	285
Sliding Rear Window . . . . .	173	Rear Axle (Differential) . . . . .	448
Steering . . . . .	327,328	Rear Seat, Folding . . . . .	126,127
Sunroof . . . . .	159	Rear Window Features . . . . .	172
Windows . . . . .	32	Rear Window, Sliding . . . . .	174
Power Steering Fluid . . . . .	480	Reclining Front Seats . . . . .	121,122
Pregnant Women and Seat Belts . . . . .	46	Reclining Rear Seats . . . . .	125
Pretensioners		Recorder, Event Data . . . . .	58
Seat Belts . . . . .	44	Recreational Towing . . . . .	397
Programming Transmitters (Remote Keyless Entry) . . . . .	23	Shifting into Transfer Case Neutral (N) . . . . .	398,400
		Shifting out of Transfer Case Neutral (N) . . . . .	399,402
Radial Ply Tires . . . . .	357	Reformulated Gasoline . . . . .	375
Radiator Cap (Coolant Pressure Cap) . . . . .	442,444	Refrigerant . . . . .	436
Radio, Navigation (uconnect® gps) . . . . .	224	Reminder, Seat Belt . . . . .	45
		Remote Keyless Entry (RKE) . . . . .	20

Remote Sound System (Radio) Controls . . . . .	231	Satellite Radio (uconnect® studios) . . . . .	224,227
Remote Starting System . . . . .	25	Schedule, Maintenance . . . . .	483
Replacement Keys . . . . .	16	Seat Belt Maintenance . . . . .	457
Replacement Parts . . . . .	430	Seat Belt Reminder . . . . .	45
Replacement Tires . . . . .	359	Seat Belts . . . . .	34,35,75
Reporting Safety Defects . . . . .	504	Adjustable Upper Shoulder Anchorage . . . . .	42
Resetting Oil Change Indicator . . . . .	193	And Pregnant Women . . . . .	46
Restraint, Head . . . . .	123	Child Restraint . . . . .	60,72
Restraints, Child . . . . .	60,67	Extender . . . . .	46
Restraints, Occupant . . . . .	34	Front Seat . . . . .	35
Rotation, Tires . . . . .	363	Inspection . . . . .	75
		Pretensioners . . . . .	44
Safety Checks Inside Vehicle . . . . .	75	Seats . . . . .	119,120
Safety Checks Outside Vehicle . . . . .	76	Adjustment . . . . .	119
Safety Defects, Reporting . . . . .	504	Child . . . . .	72
Safety, Exhaust Gas . . . . .	74	Folding Floor . . . . .	174
Safety Information, Tire . . . . .	346	Heated . . . . .	129
Safety Tips . . . . .	74	Lumbar Support . . . . .	123
Satellite Radio Antenna . . . . .	230	Power . . . . .	124

- Rear Folding . . . . . 126,127
- Reclining . . . . . 121,122
- Reclining Rear . . . . . 125
- Security Alarm (Theft Alarm) . . . . . 18
- Selection of Coolant (Antifreeze) . . . . . 442,479
- Sentry Key (Immobilizer) . . . . . 15
- Sentry Key Programming . . . . . 17
- Sentry Key Replacement . . . . . 16
- Service Assistance . . . . . 501
- Service Contract . . . . . 503
- Service Engine Soon Light  
(Malfunction Indicator) . . . . . 194
- Service Manuals . . . . . 505
- Setting the Clock . . . . . 202,204,218,224
- Shifting . . . . . 254
  - Automatic Transmission . . . . . 255
  - Transfer Case . . . . . 263
  - Transfer Case, Shifting into Transfer Case  
Neutral (N) . . . . . 398,400
  - Transfer Case, Shifting out of Transfer Case  
Neutral (N) . . . . . 399,402
- Shoulder Belt Upper Anchorage . . . . . 42
- Shoulder Belts . . . . . 35
- Signals, Turn . . . . . 76,136,188
- Sliding Rear Window
  - Power . . . . . 173
- Snow Chains (Tire Chains) . . . . . 361
- Snow Plow . . . . . 396
- Snow Tires . . . . . 363
- Spark Plugs . . . . . 479
- Speed Control (Cruise Control) . . . . . 142
- Speedometer . . . . . 189
- Stabilizer/Sway Bar System . . . . . 282
- Starting . . . . . 252
  - Automatic Transmission . . . . . 252
  - Engine Fails to Start . . . . . 252
  - Remote . . . . . 25
- Starting Procedures (Gas Engines) . . . . . 252

- Steering
- Power . . . . . 327,328
  - Wheel Lock . . . . . 14
  - Wheel, Tilt . . . . . 140
- Steering Wheel Mounted Sound System
- Controls . . . . . 231
- Storage, Behind the Seat . . . . . 167
- Storage Compartment, Center Seat . . . . . 167,169
- Storage, Vehicle . . . . . 463
- Storing Your Vehicle . . . . . 463
- Sun Roof . . . . . 159
- Supplemental Tire Pressure Information . . . . . 360
- Sway Control, Trailer . . . . . 345
- Synthetic Engine Oil . . . . . 433
- System, Navigation (uconnect<sup>®</sup> gps) . . . . . 224
- System, Remote Starting . . . . . 25
- Tachometer . . . . . 189
- Tailgate . . . . . 178
- Temperature Gauge, Engine Coolant . . . . . 190
- Tether Anchor, Child Restraint . . . . . 64,68
- Tilt Steering Column . . . . . 140
- Tip Start . . . . . 252
- Tire and Loading Information Placard . . . . . 350,360
- Tire Identification Number (TIN) . . . . . 349
- Tire Markings . . . . . 346
- Tire Pressure Monitor System (TPMS) Placard
- “HI” (MAX) Load Switch . . . . . 184,185
- Tire Safety Information . . . . . 346
- Tires . . . . . 76,354,506
- Aging (Life of Tires) . . . . . 359
  - Air Pressure . . . . . 354
  - Chains . . . . . 361
  - Dual . . . . . 365,416
  - General Information . . . . . 354
  - High Speed . . . . . 356
  - Inflation Pressures . . . . . 355
  - Jacking . . . . . 409

Life of Tires . . . . .	359	Towing . . . . .	383
Load Capacity . . . . .	350,351	24-Hour Towing Assistance . . . . .	101
Pressure Monitor System (TPMS) . . . . .	366	Disabled Vehicle . . . . .	422
Pressure Warning Light . . . . .	197	Guide . . . . .	389
Quality Grading . . . . .	506	Recreational . . . . .	397
Radial . . . . .	357	Weight . . . . .	389
Replacement . . . . .	359	Towing Assistance . . . . .	101
Rotation . . . . .	363	Traction . . . . .	304
Safety . . . . .	346,354	Traction Control . . . . .	334
Sizes . . . . .	347	Trailer Sway Control (TSC) . . . . .	345
Snow Tires . . . . .	363	Trailer Towing . . . . .	383
Spare Tire . . . . .	408	Cooling System Tips . . . . .	396
Spinning . . . . .	357	Hitches . . . . .	388
Tread Wear Indicators . . . . .	358	Minimum Requirements . . . . .	390
Wheel Mounting . . . . .	409	Mirrors . . . . .	85
Wheel Nut Torque . . . . .	414	Trailer and Tongue Weight . . . . .	389
Tongue Weight/Trailer Weight . . . . .	389	Wiring . . . . .	393
Torque Converter Clutch . . . . .	259	Trailer Towing Guide . . . . .	389
Tow Hooks, Emergency . . . . .	422	Trailer Weight . . . . .	389

- Transaxle  
  Automatic . . . . . 12
- Transfer Case . . . . . 449  
  Electronically Shifted . . . . . 264,272  
  Fluid . . . . . 480
- Transmission  
  Automatic . . . . . 255,449  
  Fluid . . . . . 480  
  Maintenance . . . . . 449  
  Shifting . . . . . 254
- Transmitter, Garage Door Opener (HomeLink®) . . 153
- Transmitter Programming (Remote Keyless Entry) . . . . . 23
- Tread Wear Indicators . . . . . 358
- Trip Computer . . . . . 146
- Trip Odometer . . . . . 192,199
- Turn Signals . . . . . 136,188,465,469
- uconnect® (Hands-Free Phone) . . . . . 86
- Uniform Tire Quality Grades . . . . . 506
- Universal Transmitter . . . . . 153
- Variance, Compass . . . . . 152
- Vehicle Identification Number (VIN) . . . . . 7
- Vehicle Loading . . . . . 351,381
- Vehicle Modifications/Alterations . . . . . 7
- Vehicle Storage . . . . . 463
- Video Entertainment System™  
(Rear Seat Video System) . . . . . 231
- Voice Recognition System (VR) . . . . . 114
- Voltmeter . . . . . 188
- Warning Lights (Instrument Cluster Description) . . . . . 188
- Warnings and Cautions . . . . . 6
- Warranty Information . . . . . 504
- Washers, Windshield . . . . . 139,438
- Washing Vehicle . . . . . 453



Water	
Driving Through	305
Wheel and Wheel Trim	454
Wheel and Wheel Trim Care	454
Wheel Cover	414
Wheel Mounting	409
Wheel Nut Torque	414,417
Winch	308
Accessories	312
Operation	313
Rigging Techniques	325
Usage	308
Wind Buffeting	33,161
Window Fogging	244
Windows	32
Power	32
Rear Sliding	174
Windshield Defroster	76,235,238
Windshield Washers	138,139,438
Fluid	438
Windshield Wiper Blades	437
Windshield Wipers	138
Wiper Blade Replacement	437
Wipers, Intermittent	138



## **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.



Chrysler LLC  
81-326-0927



Third Edition

Printed in U.S.A.