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2005 Ranger (ran), Owners Guide (post-2002-fmt) (own2002),
Market: USA English (fus)

Introduction

CALIFORNIA Proposition 65 Warning



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.

CONGRATULATIONS

Congratulations on acquiring your new Ford. Please take the time to get well acquainted with your vehicle by reading this handbook. The more you know and understand about your vehicle, the greater the safety and pleasure you will derive from driving it.

For more information on Ford Motor Company and its products visit the following website:

- In the United States: www.ford.com
- In Canada: www.ford.ca
- In Australia: www.ford.com.au
- In Mexico: www.ford.com.mx

Additional owner information is given in separate publications.

This *Owner's Guide* describes every option and model variant available and therefore some of the items covered may not apply to your particular vehicle. Furthermore, due to printing cycles it may describe options before they are generally available.

Remember to pass on this *Owner's Guide* when reselling the vehicle. It is an integral part of the vehicle.



Fuel pump shut-off switch: In the event of an accident the safety switch will automatically cut off the fuel supply to the engine. The switch can also be activated through sudden vibration (e.g. collision when parking). To reset the switch, refer to the *Fuel pump shut-off switch* in the *Roadside Emergencies* chapter.

Introduction

SAFETY AND ENVIRONMENT PROTECTION



Warning symbols in this guide

How can you reduce the risk of personal injury to yourself or others? In this guide, answers to such questions are contained in comments highlighted by the warning triangle symbol. These comments should be read and observed.



Warning symbols on your vehicle

When you see this symbol, it is imperative that you consult the relevant section of this guide before touching or attempting adjustment of any kind.



Protecting the environment

We must all play our part in protecting the environment. Correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials are significant steps towards this aim. Information in this respect is highlighted in this guide with the tree symbol.



BREAKING-IN YOUR VEHICLE

Your vehicle does not need an extensive break-in. Try not to drive continuously at the same speed for the first 1,000 miles (1,600 km) of new vehicle operation. Vary your speed frequently in order to give the moving parts a chance to break in.

Drive your new vehicle at least 500 miles (800 km) before towing a trailer.

Do not add friction modifier compounds or special break-in oils during the first few thousand miles (kilometers) of operation, since these additives may prevent piston ring seating. See *Engine oil* in the *Maintenance and Specifications* chapter for more information on oil usage.

SPECIAL NOTICES

Emission warranty

The New Vehicle Limited Warranty includes Bumper-to-Bumper Coverage, Safety Restraint Coverage, Corrosion Coverage, and 6.0L Power Stroke

Introduction

Diesel Engine Coverage. In addition, your vehicle is eligible for Emissions Defect and Emissions Performance Warranties. For a detailed description of what is covered and what is not covered, refer to the *Warranty Guide* that is provided to you along with your Owner's Guide.

Service Data Recording

Service data recorders in your vehicle are capable of collecting and storing diagnostic information about your vehicle. This potentially includes information about the performance or status of various systems and modules in the vehicle, such as engine, throttle, steering or brake systems. In order to properly diagnose and service your vehicle, Ford Motor Company, Ford of Canada, and service and repair facilities may access vehicle diagnostic information through a direct connection to your vehicle when diagnosing or servicing your vehicle.

Event Data Recording

Other modules in your vehicle — event data recorders — are capable of collecting and storing data during a crash or near crash event. The recorded information may assist in the investigation of such an event. The modules may record information about both the vehicle and the occupants, potentially including information such as:

- how various systems in your vehicle were operating;
- whether or not the driver and passenger seatbelts were buckled;
- how far (if at all) the driver was depressing the accelerator and/or the brake pedal;
- how fast the vehicle was traveling; and
- where the driver was positioning the steering wheel.

To access this information, special equipment must be directly connected to the recording modules. Ford Motor Company and Ford of Canada do not access event data recorder information without obtaining consent, unless pursuant to court order or where required by law enforcement, other government authorities or other third parties acting with lawful authority. Other parties may seek to access the information independently of Ford Motor Company and Ford of Canada.

Special instructions

For your added safety, your vehicle is fitted with sophisticated electronic controls.

Introduction

 Please read the section *Supplemental restraint system (SRS)* in the *Seating and Safety Restraints* chapter. Failure to follow the specific warnings and instructions could result in personal injury.

 Front seat mounted rear-facing child or infant seats should **NEVER** be placed in front of an active passenger air bag.

Notice to owners of pickup trucks and utility type vehicles

 Utility vehicles have a significantly higher rollover rate than other types of vehicles.

Before you drive your vehicle, please read this Owner's Guide carefully. Your vehicle is not a passenger car. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of vehicle control, vehicle rollover, personal injury or death.

Be sure to read *Driving off road* in the *Driving* chapter.

Using your vehicle with a snowplow

Do not use this vehicle for snowplowing.

Your vehicle is not equipped with a snowplowing package.

Using your vehicle as an ambulance

Do not use this vehicle as an ambulance.

Your vehicle is not equipped with the Ford Ambulance Preparation Package.

Middle East/North Africa vehicle specific information

For your particular global region, your vehicle may be equipped with features and options that are different from the ones that are described in this *Owner's Guide*; therefore, a supplement has been supplied that complements this book. By referring to the pages in the provided supplement, you can properly identify those features, recommendations and specifications that are unique to your vehicle. **Refer to this Owner's Guide for all other required information and warnings.**

Introduction

These are some of the symbols you may see on your vehicle.

Vehicle Symbol Glossary

Safety Alert		See Owner's Guide	
Fasten Safety Belt		Air Bag-Front	
Air Bag-Side		Child Seat	
Child Seat Installation Warning		Child Seat Lower Anchor	
Child Seat Tether Anchor		Brake System	
Anti-Lock Brake System		Brake Fluid - Non-Petroleum Based	
Powertrain Malfunction		Speed Control	
Master Lighting Switch		Hazard Warning Flasher	
Fog Lamps-Front		Fuse Compartment	
Fuel Pump Reset		Windshield Wash/Wipe	
Windshield Defrost/Demist		Rear Window Defrost/Demist	

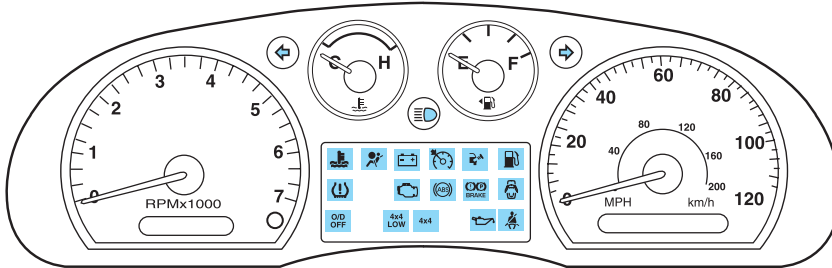
Introduction

Vehicle Symbol Glossary

Power Windows Front/Rear		Power Window Lockout	
Child Safety Door Lock/Unlock		Interior Luggage Compartment Release Symbol	
Panic Alarm		Engine Oil	
Engine Coolant		Engine Coolant Temperature	
Do Not Open When Hot		Battery	
Avoid Smoking, Flames, or Sparks		Battery Acid	
Explosive Gas		Fan Warning	
Power Steering Fluid		Maintain Correct Fluid Level	
Emission System		Engine Air Filter	
Passenger Compartment Air Filter		Jack	
Check fuel cap		Low tire warning	

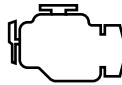
Instrument Cluster

WARNING LIGHTS AND CHIMES



Warning lights and gauges can alert you to a vehicle condition that may become serious enough to cause expensive repairs. A warning light may illuminate when a problem exists with one of your vehicle's functions. Many lights will illuminate when you start your vehicle to make sure the bulb works. If any light remains on after starting the vehicle, refer to the respective system warning light for additional information.

Check engine: The *Check Engine* indicator light illuminates when the ignition is first turned to the ON position to check the bulb. Solid illumination after the engine is started indicates the On Board Diagnostics System (OBD-II) has detected a malfunction. Refer to *On board diagnostics (OBD-II)* in the *Maintenance and Specifications* chapter. If the light is blinking, engine misfire is occurring which could damage your catalytic converter. Drive in a moderate fashion (avoid heavy acceleration and deceleration) and have your vehicle serviced immediately.



Under engine misfire conditions, excessive exhaust temperatures could damage the catalytic converter, the fuel system, interior floor coverings or other vehicle components, possibly causing a fire.

Check fuel cap: Illuminates when the fuel cap may not be properly installed. Continued driving with this light on may cause the Check Engine warning light to come on.



It may take a long period of time for the system to detect an improperly installed or properly

Instrument Cluster

re-installed fuel filler cap depending on driving and fuel tank level conditions. Refer to *Fuel filler cap* in the *Maintenance and Specifications* chapter.

Brake system warning light: To confirm the brake system warning light is functional, it will momentarily illuminate when the ignition is turned to the ON position when the engine is not running, or in a position between ON and START, or by applying the parking brake when the ignition is turned to the ON position. If the brake system warning light does not illuminate at this time, seek service immediately from your dealership. Illumination after releasing the parking brake indicates low brake fluid level or a failure to brake proportioning and the brake system should be inspected immediately by your servicing dealership.



Driving a vehicle with the brake system warning light on is dangerous. A significant decrease in braking performance may occur. It will take you longer to stop the vehicle. Have the vehicle checked by your dealer immediately.

Anti-lock brake system: If the ABS light stays illuminated or continues to flash, a malfunction has been detected; have the system serviced immediately. Normal braking is still functional unless the brake warning light also is illuminated.



Air bag readiness: If this light fails to illuminate when ignition is turned to ON, continues to flash or remains on, have the system serviced immediately. A chime will also sound when a malfunction in the supplemental restraint system has been detected.



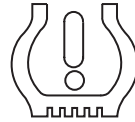
Instrument Cluster

Safety belt: Reminds you to fasten your safety belt. A chime will also sound to remind you to fasten your safety belt.



Low tire warning (if equipped with the Tire Pressure Monitoring System):

Illuminates when your tire pressure is low. If the light remains on at start up or while driving, the tire pressure should be checked. Refer to *Inspecting and Inflating Your Tires* in the *Tires, Wheels and Loading* chapter. When the ignition is first turned to ON, the light will illuminate for 3 seconds to ensure the bulb is working. If the light does not turn ON, have the system inspected by your servicing dealership. For more information on this system, refer to *Tire Pressure Monitoring System* in the *Tires, Wheels and Loading* chapter.



Charging system: Illuminates when the battery is not charging properly.



Engine oil pressure: Illuminates when the oil pressure falls below the normal range, refer to *Engine oil* in the *Maintenance and Specifications* chapter.



Engine coolant temperature (if equipped): Illuminates when the engine coolant temperature is high.



Stop the vehicle as soon as possible, switch off the engine and let cool. Refer to *Engine coolant* in the *Maintenance and Specifications* chapter.



Never remove the coolant reservoir cap while the engine is running or hot.

Instrument Cluster

Low fuel: Illuminates when the fuel level in the fuel tank is at or near empty (refer to *Fuel gauge* in this chapter).



Door ajar: Illuminates when the ignition is in the ON position and any door is open.



Overdrive off (if equipped):

Illuminates when the overdrive function of the transmission has been turned off, refer to the

Driving chapter. If the light flashes steadily or does not illuminate, have the transmission serviced soon, or damage may occur.

O/D
OFF

Four wheel drive low (if equipped): Illuminates when four-wheel drive low is engaged.

4x4
LOW

Four wheel drive high (if equipped): Illuminates when four-wheel drive high is engaged. It may also illuminate when the 4WD LOW is engaged, refer to the *Driving* chapter for more information.

4x4

Speed control: Illuminates when the speed control is engaged. Turns off when the speed control system is disengaged.



Turn signal: Illuminates when the left or right turn signal or the hazard lights are turned on. If the indicators stay on or flash faster, check for a burned out bulb.



High beams: Illuminates when the high beam headlamps are turned on.



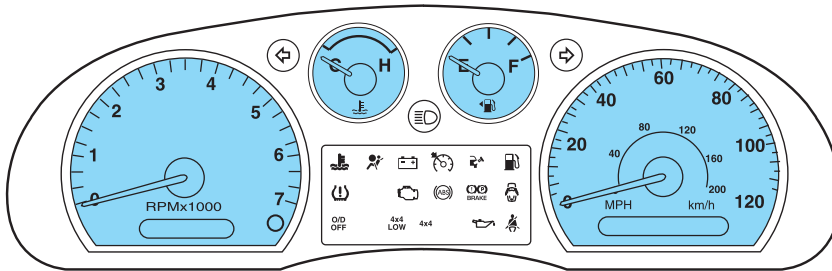
Key-in-ignition warning chime: Sounds when the key is left in the ignition in the OFF/LOCK or ACCESSORY position and the driver's door is opened.

Instrument Cluster

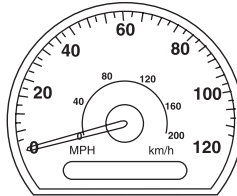
Headlamps on warning chime: Sounds when the headlamps or parking lamps are on, the ignition is off (the key is not in the ignition) and the driver's door is opened.

Door ajar warning chime: Sounds when any door is opened (or not fully closed).

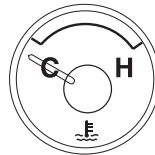
GAUGES



Speedometer: Indicates the current vehicle speed.



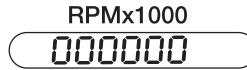
Engine coolant temperature gauge: Indicates engine coolant temperature. At normal operating temperature, the needle will be in the normal range (between "H" and "C"). **If it enters the red section, the engine is overheating. Stop the vehicle as soon as safely possible, switch off the engine and let the engine cool.**



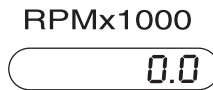
Never remove the coolant reservoir cap while the engine is running or hot.

Instrument Cluster

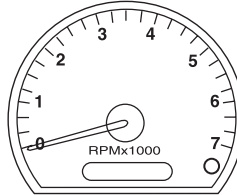
Odometer: Registers the total miles (kilometers) of the vehicle.



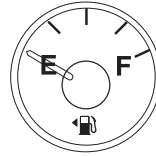
Trip odometer: Registers the miles (kilometers) of individual journeys. Press the button once until "TRIP" appears in the display (this represents the trip mode). To reset the trip, press the control again until the trip reading is 0.0 miles (kilometers).



Tachometer: Indicates the engine speed in revolutions per minute. Driving with your tachometer pointer continuously at the top of the scale may damage the engine.



Fuel gauge: Indicates approximately how much fuel is left in the fuel tank (when the ignition is in the ON position). The fuel gauge may vary slightly when the vehicle is in motion or on a grade.



Proper gauge indication requires the ignition to be in the OFF or

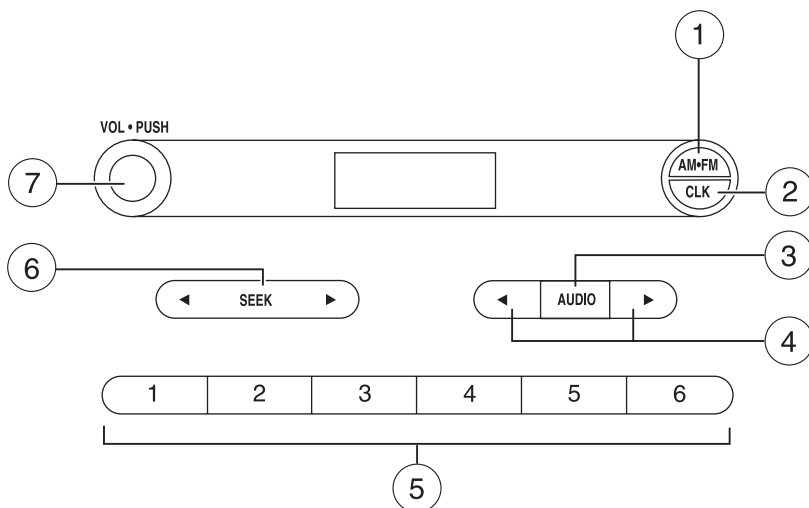
ACCESSORY position during refueling, otherwise correct fuel indication after refueling can be slow to update. Also, a minimum of 3 gallons is needed for correct indication after refueling.

The arrow near the fuel pump icon indicates which side of the vehicle the fuel filler door is located.

Refer to *Filling the tank* in the *Maintenance and Specifications* chapter for more information.

Entertainment Systems

AM/FM STEREO (IF EQUIPPED)



1. **AM/FM:** Press to select AM/FM1/FM2 frequency bands.



2. **CLK:** Press until SELECT HOUR / SELECT MINS appears.

Press ◀ AUDIO ▶ to adjust the hours/minutes.

Press CLK to display the time when the ignition is off.



3. **AUDIO:** Press AUDIO to toggle through the following modes and use ◀ / ▶ to make adjustments in those modes.



Bass: Press ◀ AUDIO ▶ to decrease/increase the bass setting.

Treble: Press ◀ AUDIO ▶ to decrease/increase the treble setting.

Entertainment Systems

Balance: Press ◀ AUDIO ▶ to adjust the audio between the left and right speakers.

4. **Tune:** Press to manually go down/up (◀ / ▶) the radio frequency and in audio mode to select various settings.

5. **Memory presets:** To set a station: Select frequency band AM/FM; tune to a station, press and hold a preset button until sound returns. To tune a preset station, press the desired memory preset.



6. **SEEK:** Press ◀ SEEK ▶ to access the previous or next radio station. If pressed for less than .5 seconds, the system will seek to the next or previous station.



7. **ON/OFF/Volume:** Press to turn the system ON/OFF. Turn to adjust the volume levels.

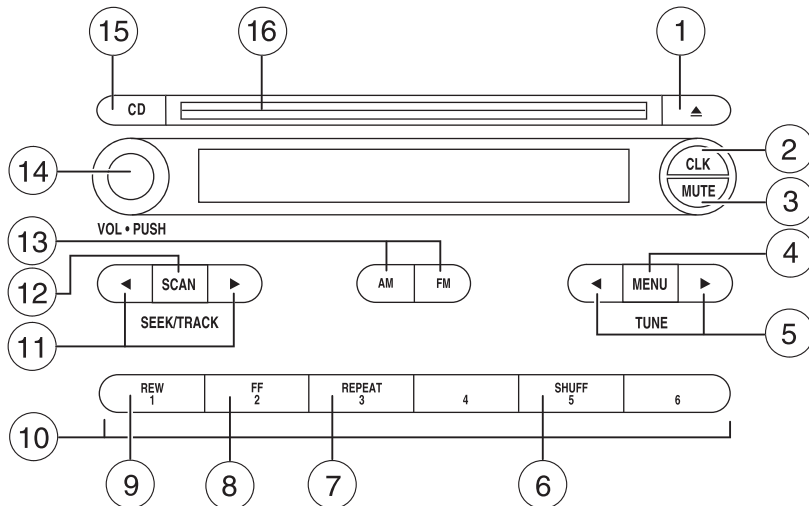
If the volume is set above a certain level, and the ignition is turned off, the volume will come back to a “nominal” listening level when the ignition is turned back on.

VOL - PUSH



Entertainment Systems

AM/FM STEREO SINGLE CD/MP3 SYSTEM (IF EQUIPPED)



1. **CD eject:** Press to eject the CD.



2. **CLK (Clock):** Press CLK until SELECT HOUR or SELECT MINS is displayed. Press



◀ MENU ▶ to adjust the hours/minutes. Press CLK to display the time when the ignition is off.

3. **MUTE:** Press to mute the playing media. Press again to return to the playing media.



4. **MENU:** Press MENU repeatedly to toggle through the following modes and use ◀ ▶ to make adjustment in those modes.



Autoset: Press ◀ MENU ▶ to set the strongest local radio stations for AM/FM1/FM2 without losing



Entertainment Systems

your original manually set preset stations.

When the six strongest stations are filled, the station stored in preset 1 will begin playing. If there are less than six strong stations, the system will store the last one in the remaining presets.

Bass: Press ◀ MENU ▶ to decrease/increase the bass setting.

Treble: Press ◀ MENU ▶ to decrease/increase the treble setting.

Balance: Press ◀ MENU ▶ to adjust the audio between the left and right speakers.

Fade: Press ◀ MENU ▶ to adjust the audio between the front and rear speakers.

5. **TUNE:** Press to manually go down/up (◀/▶) the radio frequency and also to select various settings in menu mode.



6. **SHUFF (Shuffle):** Press to play the tracks on the current CD in random order.



7. **REPEAT:** Press to repeat the current CD track. The selection will repeat continuously until deactivated. Press REPEAT again to deactivate.



8. **FF (Fast forward):** Press to manually advance in a CD track.



9. **REW (Rewind):** Press to manually reverse in a CD track.



10. **Memory presets:** To set a station: Select frequency band AM/FM; tune to a station, press and hold a preset button until sound returns. To recall a previously set station, press the desired memory preset button briefly.



11. **SEEK/TRACK:** Press to access the previous/next (◀/▶) strong station. In CD mode, press to advance to the previous/next (◀/▶) track.

Entertainment Systems

12. **SCAN:** Press to toggle between SCAN ON and SCAN OFF. When activated, the system scans up through and plays a brief sampling of available radio stations or CD tracks. Press again to stop.



13. **AM/FM:** Press to select AM/FM1/FM2 frequency band.



14. **ON/OFF/Volume:** Press to turn ON/OFF. Turn to increase/decrease volume.

If the volume is set above a certain level and the ignition is turned off, the volume will come back on at a "nominal" listening level when the ignition switch is turned back on.



15. **CD:** Press to enter CD mode. If a CD is already present in the system, the disc will begin to play.



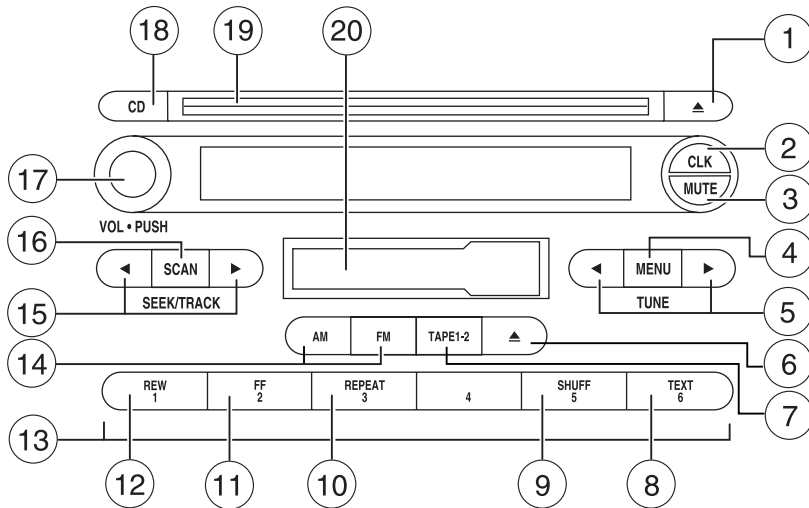
16. **CD slot:** Insert a CD label side up.



CD units are designed to play commercially pressed 4.75 in (12 cm) audio compact discs only. Due to technical incompatibility, certain recordable and re-recordable compact discs may not function correctly when used in Ford CD players. Irregular shaped CDs, CDs with a scratch protection film attached, and CDs with homemade paper (adhesive) labels should not be inserted into the CD player. The label may peel and cause the CD to become jammed. It is recommended that homemade CDs be identified with permanent felt tip marker rather than adhesive labels. Ballpoint pens may damage CDs. Please contact your dealer for further information.

Entertainment Systems

AM/FM STEREO CASSETTE, CD/MP3 SOUND SYSTEM (IF EQUIPPED)



1. **CD eject:** Press to eject the CD.



2. **CLK (Clock):** Press CLK until SELECT HOUR or SELECT MINS is displayed. Press ◀ MENU ▶ to adjust the hours/minutes. Press CLK to display the time of day when the ignition is off.



3. **MUTE:** Press to mute the playing media. Press again to return to the playing media.



4. **MENU:** Press MENU repeatedly to toggle through the following modes and use ◀/▶ to make adjustment in those modes.



Entertainment Systems

Autoset: Press MENU to access the autoset setting. Allows you to set the strongest local radio stations without losing your original

manually set preset stations for AM/FM1/FM2 . Use ◀ MENU ▶ to set.

When the six strongest stations are filled, the station stored in preset 1 will begin playing. If there are less than six strong stations, the system will store the last one in the remaining presets. Press again to disengage.

Bass: Press ◀ MENU ▶ to decrease/increase the level of bass.

Treble: Press ◀ MENU ▶ to decrease/increase the level of treble.

Balance: Press ◀ MENU ▶ to adjust the audio between the left and right speakers.

Fade: Press ◀ MENU ▶ to adjust the audio between the front and rear speakers.

Next/previous directory: In MP3 mode, press ◀ MENU ▶ to go to the previous or next MP3 directory.

Flat file/directory mode: Press ◀ MENU ▶ to select Flat file mode or Directory mode.

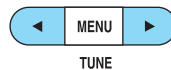
Track number/music name/file name: In MP3 mode, press ◀ MENU ▶ to view by track number, music name or file name.

Dolby:  **Dolby® noise reduction:** Reduces tape noise and hiss.

Press ◀ MENU ▶ to cycle Dolby ON/OFF. The Dolby® noise reduction system is manufactured under license from Dolby Laboratories Licensing Corporation. Dolby® and the double-D symbol are registered trademarks of Dolby® Laboratories Licensing Corporation.

5. **TUNE:** Press to manually go down/up (◀/▶) the radio frequency and also to select various settings in menu mode.

6. **Tape eject:** Press to eject the tape.



Entertainment Systems

7. **Tape 1-2:** Press to change playing sides of the tape.



8. **TEXT:** In MP3 mode, press to view the next 12 characters in the MP3 Music name/file name of the current MP3 track and directory.



9. **SHUFF (Shuffle):** In CD or MP3 mode, press to play the tracks on the current CD/MP3 in random order. In MP3 directory mode, press to play the tracks within the current directory in random order.



10. **REPEAT:** Press to repeat the current CD/MP3 track. The selection will repeat continuously until deactivated. Press REPEAT again to deactivate.



11. **FF (Fast forward):** In tape mode, press to fast forward the tape. In CD mode, press to manually advance in a CD track.



12. **REW (Rewind):** In tape mode, press to rewind the tape. In CD mode, press to manually reverse in a CD track.



13. **Memory presets:** To set a station: Select frequency band AM/FM; tune to a station, press and hold a preset button until sound returns. To select a preset station, press the desired memory preset button.



14. **AM/FM:** Press to select AM/FM1/FM2 frequency band.



15. **SEEK/TRACK:** In radio mode, press ◀/▶ to access the previous/next strong station. In CD and MP3 flat file mode, press to access the next track. In MP3 directory mode, press to select the next/previous track in the current directory.

16. **Scan:** In radio mode, scan through the available stations. In tape mode, you may set SCAN on or



Entertainment Systems

off. If activated, the player will scan the tape and plays a short Introduction of each song. In CD and MP3 flat file mode, you may set the scan on or off. If activated, the system will scan through each track. In MP3 directory mode, you may set scan on or off. If activated, the system will scan in the current directory.

17. **ON/OFF/Volume:** Press to turn ON/OFF. Turn to increase/decrease volume.

If the volume is set above a certain level and the ignition is turned off, the volume will come back on at a “nominal” listening level when the ignition switch is turned back on.



18. **CD:** Press to enter CD mode. If a CD is already in the system, the disc will begin play.



19. **CD slot:** Insert a CD, label side up.

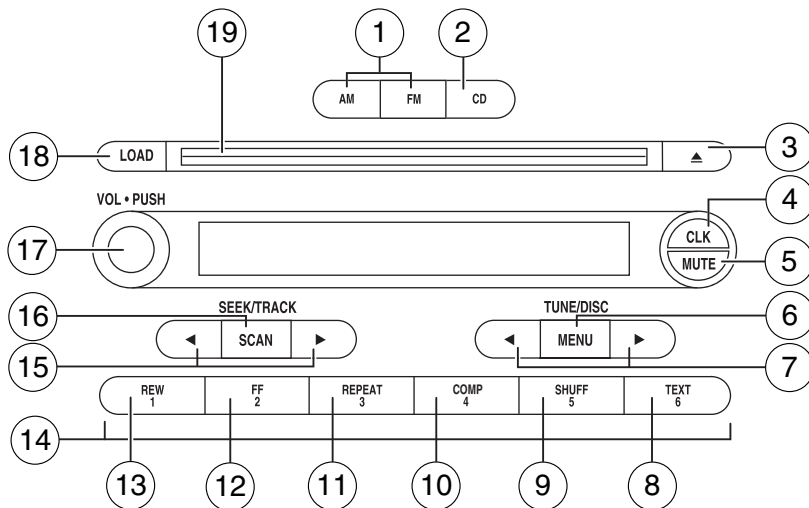


CD units are designed to play commercially pressed 4.75 in (12 cm) audio compact discs only. Due to technical incompatibility, certain recordable and re-recordable compact discs may not function correctly when used in Ford CD players. Irregular shaped CDs, CDs with a scratch protection film attached, and CDs with homemade paper (adhesive) labels should not be inserted into the CD player. The label may peel and cause the CD to become jammed. It is recommended that homemade CDs be identified with permanent felt tip marker rather than adhesive labels. Ballpoint pens may damage CDs. Please contact your dealer for further information.

20. **Cassette slot:** Insert a cassette, facing to the right.

Entertainment Systems

PREMIUM/AUDIOPHILE IN-DASH CD6/MP3 DISC PIONEER AUDIO SYSTEM (IF EQUIPPED)



1. **AM/FM:** Press to select AM/FM1/FM2 frequency bands.



2. **CD:** Press to enter CD mode. If a CD is already in the system, the disc will start playing.



3. **EJ (CD eject):** Press to eject the CD. Press and hold to eject all CDs.



4. **CLK (Clock):** Press CLK until SELECT HOUR or SELECT MINS is displayed. Press ◀ MENU ▶ to adjust the hours/minutes. Press CLK to display the time when the ignition is off.



5. **MUTE:** Press to mute the playing media. Press again to return to the playing media.



Entertainment Systems

6. **MENU:** Press MENU repeatedly to toggle through the following modes and use ◀/▶ to make adjustment in those modes.



Autoset: Allows you to set the strongest local radio stations without losing your original manually set preset stations for



AM/FM1/FM2. Press MENU to access. Use ◀ MENU ▶ to set.

When the six strongest stations are filled, the station stored in preset 1 will begin playing. If there are less than six strong stations, the system will store the last one in the remaining presets.

Bass: Press ◀ MENU ▶ to decrease/increase the bass setting.

Treble: Press ◀ MENU ▶ to decrease/increase the treble setting.

Balance: Press ◀ MENU ▶ to adjust the audio between the left and right speakers.

Fade: Press ◀ MENU ▶ to adjust the audio between the front and rear speakers.

Next/previous directory: In MP3 mode, press MENU ◀/▶ to go to the previous/next directory.

Flat file/directory mode: In MP3 mode, press MENU to access this feature. Use ◀ MENU ▶ to select flat file mode or directory mode.

Track #/normal music name/file name: Press MENU to access and use ◀/▶ to scroll through MP3 display options (track #, normal music name or file name).

7. **TUNE/DISC:** Press to manually go down/up (◀/▶) the radio frequency, select the previous/next CD or to select various settings in menu mode.

8. **TEXT:** In MP3 music name/file name mode, press to view the next 12 characters in the MP3 music name/filename of the current MP3 track and directory.

9. **SHUFF (Shuffle):** Press to play the tracks on the current CD/MP3 in random order. In MP3 directory



mode, press to play the tracks within the current directory in random order.

Entertainment Systems

10. **Compression (Audiophile audios only):** In CD/MP3 modes, press to bring loud and soft passages together for a more consistent listening level.



11. **REPEAT:** Press to repeat the current CD/MP3 track. The selection will repeat continuously until deactivated. Press REPEAT again to deactivate.



12. **FF (Fast forward):** Press to manually advance in a CD track.



13. **REW (Rewind):** Press to manually reverse in a CD track.



14. **Memory presets:** To set a station: Select frequency band AM/FM; tune to a station, press and hold a preset button until sound returns. To select a preset station, press the desired memory preset.



15. **SEEK/TRACK:** In radio, CD and MP3 flat file mode, press ◀/▶ to access the previous/next strong station or track. In MP3 directory mode, press to select the next/previous track in the current directory.

16. **SCAN:** In radio, CD and MP3 flat file mode, press for a brief sampling of radio stations or CD/MP3 tracks. In MP3 directory mode, press to hear a brief sampling of all tracks in the current directory. Press again to stop.



17. **ON/OFF/Volume:** Press to turn ON/OFF. Turn to increase/decrease volume.

If the volume is set above a certain level and the ignition is turned off, the volume will come back on at a “nominal” listening level when the ignition switch is turned back on.

VOL - PUSH



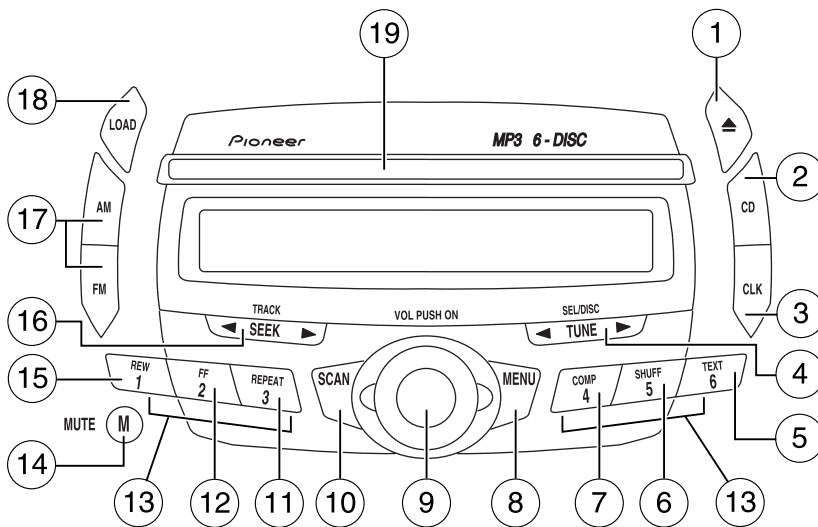
18. **LOAD:** Press to load a CD. To load a CD/MP3 disc to a specific slot, press LOAD and select the slot number by pressing the memory preset buttons. Press and hold LOAD to autoloading up to six discs.

19. **CD slot:** Insert a CD, label side up.

Entertainment Systems

CD units are designed to play commercially pressed 4.75 in (12 cm) audio compact discs only. Due to technical incompatibility, certain recordable and re-recordable compact discs may not function correctly when used in Ford CD players. Irregular shaped CDs, CDs with a scratch protection film attached, and CDs with homemade paper (adhesive) labels should not be inserted into the CD player. The label may peel and cause the CD to become jammed. It is recommended that homemade CDs be identified with permanent felt tip marker rather than adhesive labels. Ballpoint pens may damage CDs. Please contact your dealer for further information.

TREMOR IV CD/MP3 AUDIO SYSTEM (IF EQUIPPED)



1. **EJ (CD eject):** To eject an individual CD, press CD and select the correct slot number by pressing the Memory Preset buttons. Press and hold EJ (eject) to eject all loaded CDs.



Entertainment Systems

2. **CD:** Press to enter CD mode. If a CD is already present in the system, the disc will begin play.



3. **CLK (Clock):** Press CLK until SELECT HOUR/SELECT MINUTE is displayed. Press TUNE (◀/▶) to adjust the hours/minutes. Press CLK to display the time when the ignition is off.



4. **TUNE:** In radio mode, press to manually go up or down the radio frequency, or to access another CD. Also use in menu mode to select various settings.



5. **TEXT:** In MP3 music name/file name mode, press to view the next 12 characters in the MP3 music name/file name of the current MP3 track and directory.



6. **SHUF (Shuffle):** Press to play the tracks on the current CD/MP3 in random order. In MP3 directory mode, press to play the tracks within the current directory in random order.



7. **COMP (Compression):** In CD/MP3 modes, press to bring soft and loud passages together for a more consistent listening level.



8. **MENU:** Press MENU to toggle through the following modes and ◀ TUNE ▶ to make adjustments in these modes.



Autoset: Allows you to set the strongest local radio stations without losing your original manually set preset stations for AM/FM1/FM2. Press MENU to access, use ◀ TUNE ▶ to set. When the six strongest stations are filled, the station stored in preset 1 will begin playing. If there are less than six strong stations, the system will store the last one in the remaining presets. Press ◀ TUNE ▶ again to disengage.

BASS: Press ◀ TUNE ▶ to decrease/increase the bass levels.

Entertainment Systems

TREB (treble): Press ◀ TUNE ▶ to decrease/increase the treble levels.

BAL (Balance): Press ◀ TUNE ▶ to adjust the audio between the left and right speakers.

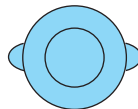
FADE: Press ◀ TUNE ▶ to adjust the audio between the front and rear speakers.

Flat file/directory mode: In MP3 mode, press ◀ TUNE ▶ to select Flat file mode or Directory mode.

Track number/normal music name/file name: Press ◀ TUNE ▶ to view by track number, music name or file name.

9. **ON/OFF/VOL (Volume):** Press to turn the system ON/OFF. Turn to adjust the volume levels.

If the volume is set above a certain level and the ignition is turned off, the volume will come back on at a “nominal” listening level when the ignition is turned back on.



10. **SCAN:** In radio, CD and MP3 flat file mode, press for a brief sampling of radio stations or CD/MP3 tracks. In MP3 directory mode, press to hear a brief sampling of all tracks in the current directory. Press again to stop.



11. **REPEAT:** Press to repeat the current CD/MP3 track. The selection will repeat continuously until deactivated. Press REPEAT again to deactivate.



12. **FF (fast forward):** Press to manually advance in a CD track.



13. **Memory presets:** To set a station: Select frequency band AM/FM; tune to a station, press and hold a preset button until sound returns. To select a preset station, press the desired memory preset button.



Entertainment Systems

14. **MUTE:** Press to mute the playing media. Press again to return to the playing media.



15. **REW (rewind):** Press to manually reverse a CD track.



16. **SEEK:** In radio, CD and MP3 flat file mode, press ◀ / ▶ to access the previous/next strong station or track. In MP3 directory mode, press to select the next/previous track in the current directory.



17. **AM/FM:** Press to select AM/FM1/FM2 frequency band.



18. **LOAD:** To load a CD/MP3 disc to a specific slot, press LOAD and select the slot number by pressing the Memory Preset buttons. Press and hold LOAD to autoload up to six discs.



19. **CD slot:** Insert a CD, label side up.



RADIO FREQUENCIES

AM and FM frequencies are established by the Federal Communications Commission (FCC) and the Canadian Radio and Telecommunications Commission (CRTC). Those frequencies are:

AM - 530, 540–1700, 1710 kHz

FM- 87.7, 87.9–107.7, 107.9 MHz

Entertainment Systems

RADIO RECEPTION FACTORS

There are three factors that can affect radio reception:

- Distance/strength: The further you travel from an FM station, the weaker the signal and the weaker the reception.
- Terrain: Hills, mountains, tall buildings, power lines, electric fences, traffic lights and thunderstorms can interfere with your reception.
- Station overload: When you pass a broadcast tower, a stronger signal may overtake a weaker one and play while the weak station frequency is displayed.

CASSETTE/PLAYER CARE

Do:

- Use only cassettes that are 90 minutes long or less.
- Tighten very loose tapes by inserting a finger or pencil into the hole and turning the hub.
- Remove loose labels before inserting tapes.
- Allow tapes which have been subjected to extreme heat, humidity or cold to reach a moderate temperature before playing.
- Clean the cassette player head with a cassette cleaning cartridge after 10–12 hours of play to maintain good sound/operation.

Don't:

- Expose tapes to direct sunlight, extreme humidity, heat or cold.
- Leave tapes in the cassette player for a long time when not being played.

CD/CD PLAYER CARE

Do:

- Handle discs by their edges only. Never touch the playing surface.
- Inspect discs before playing. Clean only with an approved CD cleaner and wipe from the center out.

Don't:

- Expose discs to direct sunlight or heat sources for extended periods of time.
- Insert more than one disc into each slot of the CD changer magazine.
- Clean using a circular motion.

Entertainment Systems

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AUDIO SYSTEM WARRANTY AND SERVICE

Refer to the *Warranty Guide* for audio system warranty information. If service is necessary, see your dealer or qualified technician.

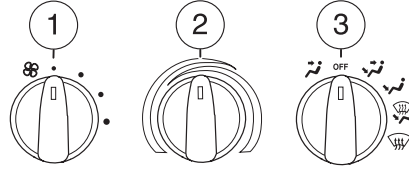
Climate Controls

HEATER ONLY SYSTEM (IF EQUIPPED)

1. **Fan speed adjustment:** Controls the volume of air circulated in the vehicle.

2. **Temperature selection:** Controls the temperature of the airflow in the vehicle.

3. **Air flow selections:** Controls the direction of the airflow in the vehicle. See the following for a brief description on each control.



 : Distributes outside air through the instrument panel vents.

OFF: Outside air is shut out and the fan will not operate.

 : Distributes outside air through the instrument panel vents and the floor vents.

 : Distributes outside air through the floor vents.

 : Distributes outside air through the windshield defroster vents and floor vents.

 : Distributes outside air through the windshield defroster vents.

OPERATING TIPS

- To reduce fog build up on the windshield during humid weather, place the air flow selector in the  position.
- To reduce humidity build up inside the vehicle during cold or warm weather, do not drive with the air flow selector in the OFF position.
- Under normal weather conditions, do not leave the air flow selector in OFF when the vehicle is parked. This allows the vehicle to “breathe” using the outside air inlet vents.
- Do not put objects under the front seats that will interfere with the air flow to the back seats.
- Remove any snow, ice or leaves from the air intake area at the base of the windshield.

Climate Controls

To aid in side window defogging/demisting in cold weather:

1. Select .
2. Adjust the temperature control to maintain comfort.
3. Set the fan speed to the highest setting.
4. Direct the outer instrument panel vents towards the side windows.

To increase airflow to the outer instrument panel vents, close the vents located in the middle of the instrument panel.



Do not place objects on top of the instrument panel as these objects may become projectiles in a collision or sudden stop.

MANUAL HEATING AND AIR CONDITIONING SYSTEM (IF EQUIPPED)

1. **Fan speed adjustment:** Controls the volume of air circulated in the vehicle.

2. **Temperature selection:** Controls the temperature of the airflow in the vehicle.

3. **Air flow selections:** Controls the direction of the airflow in the vehicle. See the following for a brief description on each control.

MAX A/C: Uses recirculated air to cool the vehicle. Air flows from the instrument panel vents only. Temperature of airflow not adjustable.

A/C: Uses outside air to cool the vehicle. Air flows from the instrument panel vents only.

 : Distributes outside air through the instrument panel vents.

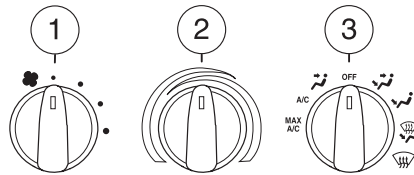
OFF: Outside air is shut out and the fan will not operate.

 : Distributes outside air through the instrument panel vents and the floor vents.

 : Distributes outside air through the floor vents.

 : Distributes outside air through the windshield defroster vents and floor vents.

 : Distributes outside air through the windshield defroster vents.



Climate Controls

OPERATING TIPS

- To reduce fog build up on the windshield during humid weather, place the air flow selector in the  position.
- To reduce humidity build up inside the vehicle: do not drive with the air flow selector in the OFF position.
- Under normal weather conditions, do not leave the air flow selector in MAX A/C or OFF when the vehicle is parked. This allows the vehicle to “breathe” using the outside air inlet vents.
- Do not put objects under the front seats that will interfere with the airflow to the back seats.
- Remove any snow, ice or leaves from the air intake area at the base of the windshield.

To aid in side window defogging/demisting in cold weather:

1. Select .
2. Adjust the temperature control to maintain comfort.
3. Set the highest fan speed.
4. Direct the outer instrument panel vents towards the side windows.

To increase airflow to the outer instrument panel vents, close the vents located in the middle of the instrument panel.



Do not place objects on top of the instrument panel as these objects may become projectiles in a collision or sudden stop.

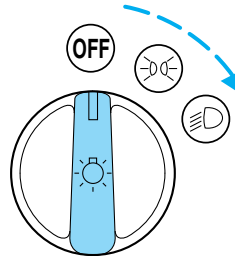
Lights

HEADLAMP CONTROL ☼

OFF Turns the lamps off.

☼ Turns on the parking lamps, instrument panel lamps, license plate lamps and tail lamps.

☼ Turns the headlamps on.



Foglamp control (if equipped) ☼

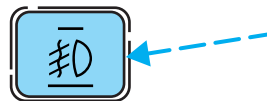
The foglamps can be turned on when the ignition is in the ON position and the headlamp control is in either of the following positions:

- Parking lamps
- Low beams

Press the foglamp control to activate the foglamps.

Press the foglamp control again to deactivate the foglamps.

When the highbeams are activated, the foglamps will not operate.



Daytime running lamps (DRL) (if equipped)

The daytime running light system turns the headlamps on, with a reduced light output.

To activate:

- the ignition must be in the ON position and
- the headlamp system is in the OFF position or parking lamp position.

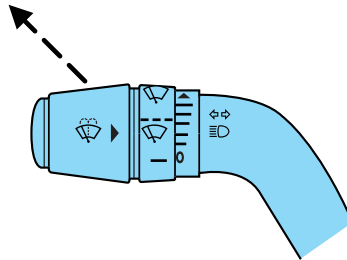


Always remember to turn on your headlamps at dusk or during inclement weather. The Daytime Running Light (DRL) System does not activate your tail lamps and generally may not provide adequate lighting during these conditions. Failure to activate your headlamps under these conditions may result in a collision.

Lights

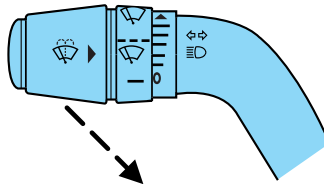
High beams

Push the lever toward the instrument panel to activate. Pull the lever towards you to deactivate.



Flash to pass

Pull toward you slightly to activate and release to deactivate.

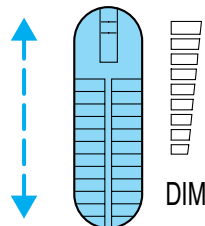


PANEL DIMMER CONTROL

Use to adjust the brightness of the instrument panel and all applicable switches in the vehicle during headlamp and parklamp operation.

Move the control up or down to adjust the intensity of the panel lighting.

Move the control to the full upright position, past detent, to turn on the interior lamps.



AIMING THE HEADLAMPS

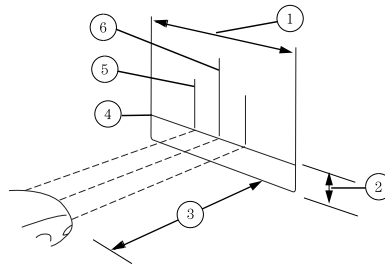
The headlamps on your vehicle are properly aimed before leaving the assembly plant. If your vehicle is involved in an accident or if you have problems fixing the alignment of your headlamps, have them checked by a qualified service technician.

HEADLAMP AIM ADJUSTMENT

The headlamps are designed to be mechanically aimed, but can also be aimed visually by doing the following:

1. Park your vehicle on a level surface about 25 feet (7.6 meters) away from a vertical plain surface (3). Check your headlamp alignment at night or in a dark area so that you can see the headlamp beam pattern.

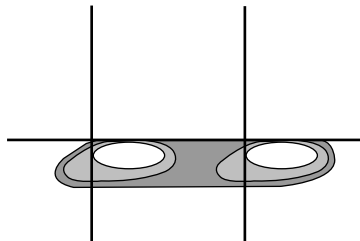
- (1) Eight feet
- (2) Center height of lamp to ground
- (3) Twenty-five feet
- (4) Horizontal reference line
- (5) Center of headlamps
- (6) Center line of the vehicle



2. The center of the headlamp is marked either on the lens (a circle or cross marker) or on the bulb shield, internal to the lamp (mark or feature). Measure the height from the center of your headlamp to the ground (2) and mark an 8 foot (2.4 meter) long horizontal line on the wall or screen (1) at this height (masking tape works well).

3. Turn on the low beam headlamps and open the hood.

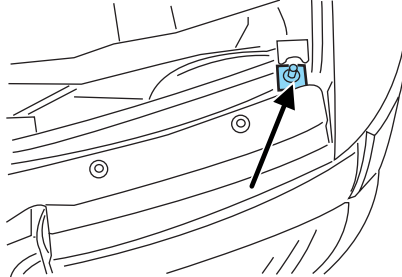
4. Locate the high intensity area of the beam pattern and place the top edge of the intensity zone even with the horizontal reference line (4). If the top edge of the high intensity area is not even with the horizontal line, follow the next step to adjust it.



Lights

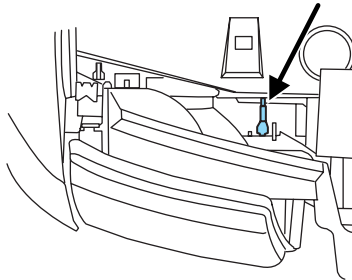
5. Locate the vertical adjuster for each headlamp. Adjust the aim by turning the adjuster control either clockwise (to adjust down) or counterclockwise (to adjust up).

6. In addition to the horizontal line marked in step 2, a pair of vertical lines (5) must be marked at the center line of the headlamps on the wall or screen.



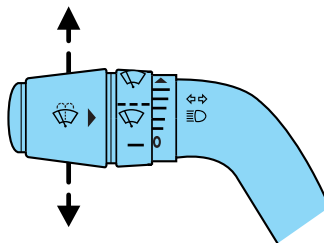
7. On the wall or screen, locate the high intensity area of the beam pattern. The left edge of the high intensity area should be even with the vertical line corresponding to the headlamp under adjustment. If the left edge of the high intensity area is not even with the vertical line, follow the next step to adjust it.

8. Locate the horizontal adjuster for each headlamp. Turn it clockwise or counterclockwise, to place the left edge of the high intensity area even with the vertical line corresponding to the headlamp under adjustment.



TURN SIGNAL CONTROL ⇄

- Push down to activate the left turn signal.
- Push up to activate the right turn signal.



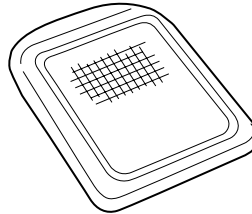
Lights

INTERIOR LAMPS

COURTESY/READING LAMPS (IF EQUIPPED)

The courtesy lamp lights when:

- any door is opened.
- the instrument panel dimmer switch is held up until the courtesy lamps come on.
- the remote entry controls are pressed and the ignition is OFF.



BULBS

Replacing exterior bulbs

Check the operation of all the bulbs frequently.

Using the right bulbs

Replacement bulbs are specified in the chart below. Headlamp bulbs must be marked with an authorized "D.O.T." for North America and an "E" for Europe to assure lamp performance, light brightness and pattern and safe visibility. The correct bulbs will not damage the lamp assembly or void the lamp assembly warranty and will provide quality bulb burn time.

Function	Number of bulbs	Trade number
Park/turn(front)	2	3457AK (amber)
Side marker lamps	2	194
Headlamps	2	9007
Foglamps (if equipped)	2	9145
Hi-mount brakelamp	1	922
Rear stop/turn/tail lamps	2	4157K or 3157K
Rear license plate lamps	2	194
Backup lamp	2	3156
Dome lamp	1	912
Map/dome-SuperCab (if equipped)	2	904

Lights

Function	Number of bulbs	Trade number
Map lamp-Regular Cab (if equipped)	1	904
	1	904
All replacement bulbs are clear in color except where noted.		
To replace all instrument panel lights - see your dealer.		

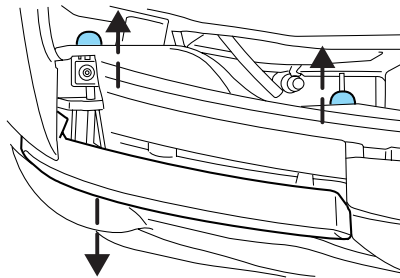
Replacing the interior bulbs

Check the operation of all bulbs frequently.

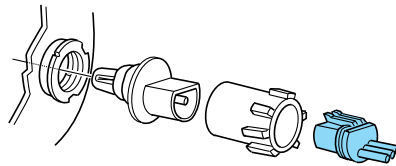
Replacing headlamp bulbs/front park bulbs/turn signal bulbs

To remove the bulb(s):

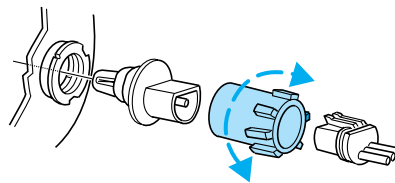
1. Make sure the headlamp switch is in the OFF position, then open the hood.
2. At the back of the headlamp, pry up the two retainer pins to release the headlamp assembly from the vehicle and pull headlamp forward.



3. Disconnect the electrical connector from the bulb by pulling rearward.

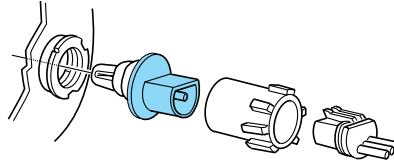


4. Remove the bulb retaining ring by rotating it counterclockwise and slide the ring off the plastic base.



Lights

5. Remove the old bulb by pulling it straight out of the lamp.

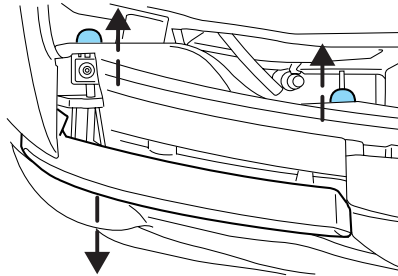


 Handle a halogen headlamp bulb carefully and keep out of children's reach. Grasp the bulb only by its plastic base and do not touch the glass. The oil from your hand could cause the bulb to break the next time the headlamps are operated.

Install the new bulb(s) in reverse order.

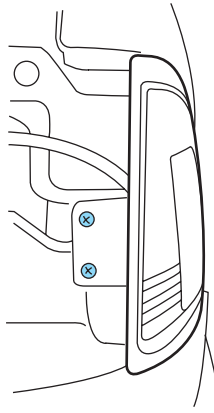
Replacing front sidemarker bulbs

1. Turn the headlamp switch to the OFF position and then open the hood.
2. At the back of the headlamp, pry up the two retainer pins to release the headlamp assembly from the vehicle and pull headlamp forward.



Lights

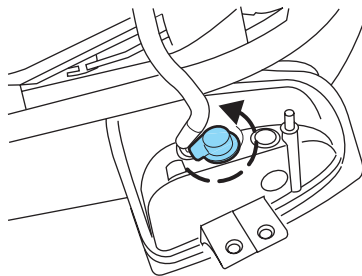
3. Remove screw(s) from lamp assembly and disengage lamp assembly (it has a snap fit).



4. Rotate bulb socket counterclockwise and remove from lamp assembly.

5. Carefully pull bulb straight out of socket and push in the new bulb.

6. Install the bulb socket in lamp assembly by turning clockwise.

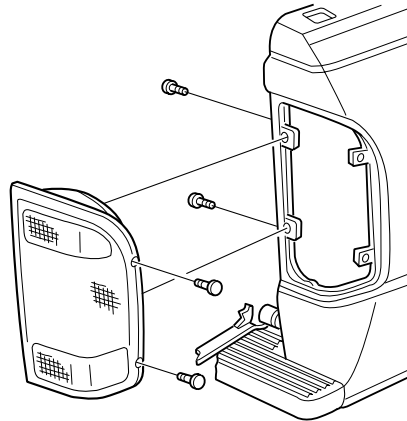


Install the new bulb in reverse order.

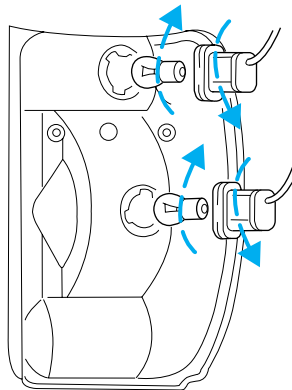
Lights

Replacing tail lamp/backup lamp bulbs

1. Make sure the headlamp switch is in the OFF position and the open the tailgate to expose the lamp assemblies.
2. Remove the four screws and the lamp assembly from vehicle.



3. Rotate bulb socket counterclockwise turn and remove from lamp assembly.
4. Carefully pull the bulb straight out of the socket

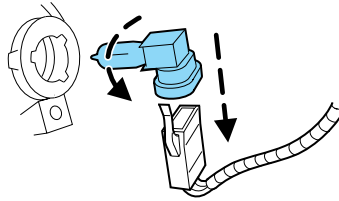


Install the new bulb(s) in reverse order.

Lights

Replacing foglamp bulbs (if equipped)

1. Make sure the headlamp switch is in the OFF position and remove the bulb socket from the foglamp by turning counterclockwise.
2. Disconnect the electrical connector.



Install the new bulb in reverse order.

Replacing high-mount brakelamp bulb

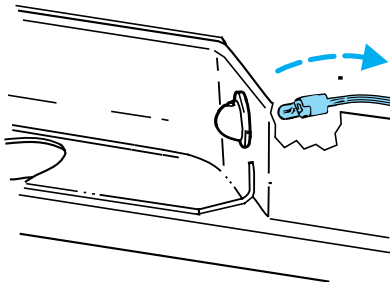
1. Make sure the headlamp switch is in the OFF position and remove the two screws and lamp assembly from vehicle.
2. Remove the bulb socket from lamp assembly by rotating it counterclockwise.
3. Carefully pull bulb straight out of socket.



Install the new bulb in reverse order.

Replacing license plate lamp bulbs

1. Make sure the headlamp switch is in the OFF position and reach behind the rear bumper to locate the bulb socket.
2. Twist the socket counterclockwise and remove.
3. Carefully pull the bulb straight out of the socket.

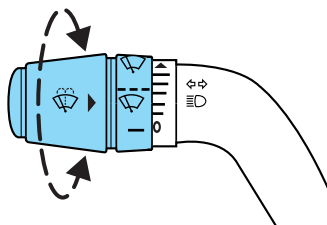


Install the new bulb(s) in reverse order.

Driver Controls

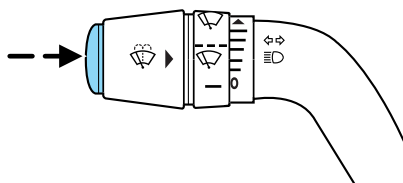
MULTI-FUNCTION LEVER

Windshield wiper: Rotate the end of the control away from you to increase the speed of the wipers (from desired interval to low or high speed position); rotate towards you to decrease the speed of the wipers.



Windshield washer: Push the end of the stalk:

- briefly: causes a single swipe of the wipers without washer fluid.
- a quick push and hold: the wipers will swipe three times with washer fluid.
- a long push and hold: the wipers and washer fluid will be activated for up to ten seconds.



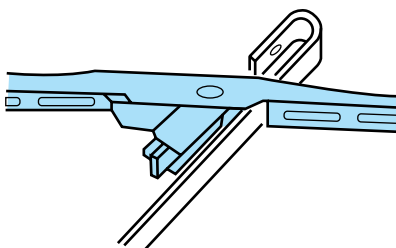
Changing the wiper blades

1. Pull the wiper arm away from the vehicle. Turn the blade at an angle from the wiper arm. Push the lock pin manually to release the blade and pull the wiper blade down toward the windshield to remove it from the arm.

2. Attach the new wiper to the wiper arm and press it into place until a click is heard.

3. Replace wiper blades every 6 months for optimum performance.

4. Poor wiper quality can sometimes be improved by cleaning the wiper blades, refer to *Window and wiper blades* in the *Cleaning* chapter.



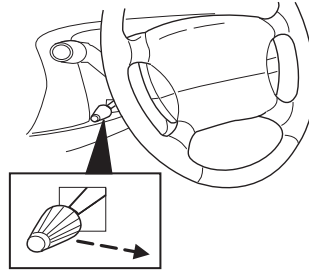
Driver Controls

5. To prolong the life of the wiper blades, it is highly recommended to scrape off the ice on the windshield before turning on the wipers. The layer of ice has many sharp edges and can damage the micro edge of the wiper rubber element.

TILT STEERING WHEEL (IF EQUIPPED)

To adjust the steering wheel:

1. Pull and hold the steering wheel release control toward you.
2. Move the steering wheel up or down until you find the desired location.
3. Release the steering wheel release control. This will lock the steering wheel in position.

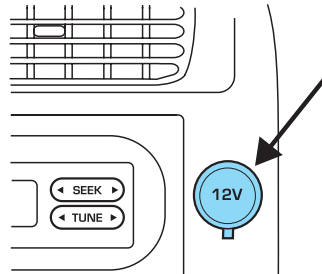


Never adjust the steering wheel when the vehicle is moving.

AUXILIARY POWER POINT (12VDC)

Power outlets are designed for accessory plugs only. Do not hang any type of accessory or accessory bracket from the plugs. Improper use of the power outlets can cause damage not covered by your warranty.

The auxiliary power points are located on the instrument panel. Do not plug optional electrical accessories into the cigarette lighter. Use the power points.



Do not use the power points for operating the cigarette lighter element.

The maximum power each power point can supply depends on the fuse rating. For example: a 20A fuse should supply a maximum of 240 Watts, a 15A fuse should supply a maximum of 180 Watts and a 10A fuse should supply a maximum of 120 Watts. Exceeding these limits will result in a blown fuse. Refer to *Passenger Compartment Fuse Panel* in the *Roadside Emergencies* chapter for fuse ratings in your vehicle.

Driver Controls

Always keep the power point caps closed when not being used.

POWER WINDOWS (IF EQUIPPED)

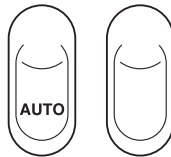


Do not leave children unattended in the vehicle and do not let children play with the power windows. They may seriously injure themselves.



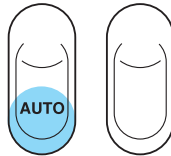
When closing the power windows, you should verify they are free of obstructions and ensure that children and/or pets are not in the proximity of the window openings.

Press and hold the bottom part of the rocker switch to open the window. Press and hold the top part of the rocker switch to close the window.



One touch down

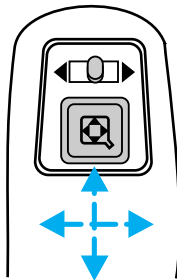
Allows the driver's window to open fully without holding the control down. Press completely down on AUTO and release quickly. Press again to stop.



POWER SIDE VIEW MIRRORS (IF EQUIPPED)

To adjust your mirrors:

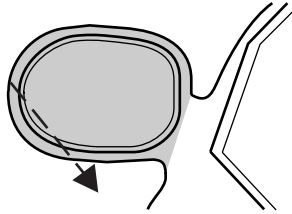
1. Select  to adjust the left mirror or  to adjust the right mirror.
2. Move the control in the direction you wish to tilt the mirror.
3. Return to the center position to lock mirrors in place.



Driver Controls

FOLD-AWAY MIRRORS

Pull the side mirrors in carefully when driving through a narrow space, like an automatic car wash.



SPEED CONTROL (IF EQUIPPED)

With speed control set, you can maintain a speed of 30 mph (48 km/h) or more without keeping your foot on the accelerator pedal. Speed control does not work at speeds below 30 mph (48 km/h).

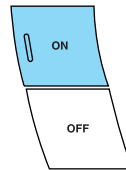


Do not use the speed control in heavy traffic or on roads that are winding, slippery or unpaved.

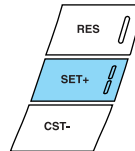
Setting speed control

The controls for using your speed control are located on the steering wheel for your convenience.

1. Press the ON control and release it.
2. Accelerate to the desired speed.



3. Press the SET + control and release it.
4. Take your foot off the accelerator pedal.
5. The indicator light  on the instrument cluster will turn on.



Note:

- Vehicle speed may vary momentarily when driving up and down a steep hill.
- If the vehicle speed increases above the set speed on a downhill, you may want to apply the brakes to reduce the speed.
- If the vehicle speed decreases more than 10 mph (16 km/h) below your set speed on an uphill, your speed control will disengage.

Driver Controls

- If the vehicle speed decreases to 30 mph (48 km/h) or less, your speed control will disengage

Disengaging speed control

To disengage the speed control:

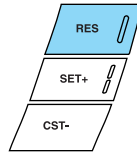
- Depress the brake pedal or
- Depress the clutch pedal (if equipped).

Disengaging the speed control will not erase previous set speed.

Note: When you use the clutch pedal to disengage the speed control, the engine speed may briefly increase, this is normal.

Resuming a set speed

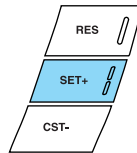
Press the RES (resume) control and release it. This will automatically return the vehicle to the previously set speed. The RES control will not work if the vehicle speed is not faster than 30 mph (48 km/h).



Increasing speed while using speed control

There are three ways to set a higher speed:

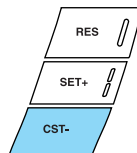
- Press and hold the SET + control until you get to the desired speed, then release the control.
- Press and release the SET + control to operate the Tap-Up function. Each tap will increase the set speed by 1 mph (1.6 km/h).
- Use the accelerator pedal to get to the desired speed. When the vehicle reaches that speed press and release the SET + control.



Reducing speed while using speed control

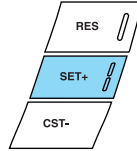
There are three ways to reduce a set speed:

- Press and hold the CST - control until you get to the desired speed, then release the control.
- Press and release the CST - control to operate the Tap-Down function. Each tap will decrease the set speed by 1 mph (1.6 km/h).



Driver Controls

- Depress the brake pedal or the clutch pedal (if equipped) until the desired vehicle speed is reached, press the SET + control.

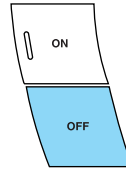


Turning off speed control

There are two ways to turn off the speed control:

- Press the speed control OFF control.
- Turn OFF the ignition.

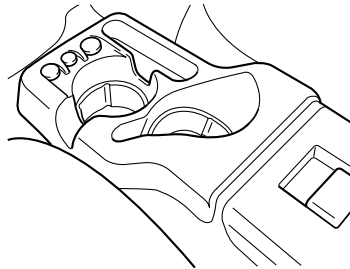
Note: When you turn off the speed control or the ignition, your speed control set speed memory is erased.



CENTER CONSOLE (IF EQUIPPED)

Your vehicle may be equipped with a variety of console features. These include:

- Utility compartment with cassette/compact disc storage
- Cupholders
- Coin holder slots
- Flip up armrest
- Passenger airbag on/off switch (if equipped)



Use only soft cups in the cupholder. Hard objects can injure you in a collision.

Cell phone use

The use of Mobile Communications Equipment has become increasingly important in the conduct of business and personal affairs. However, drivers must not compromise their own or others' safety when using

Driver Controls

such equipment. Mobile Communications can enhance personal safety and security when appropriately used, particularly in emergency situations. Safety must be paramount when using mobile communications equipment to avoid negating these benefits.

Mobile Communication Equipment includes, but is not limited to cellular phones, pagers, portable email devices, in vehicle communications systems, telematics devices and portable two-way radios.



A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communications Equipment.

CARGO AREA FEATURES

Cargo area shade (if equipped)

Your vehicle may be equipped with notches in the side trim panels that are used for a cargo area shade. See your dealer for more information.

BEDRAILS (IF EQUIPPED)

- This bedrail is for appearance use only.



To help prevent injury, do not use bedrail to retain cargo.

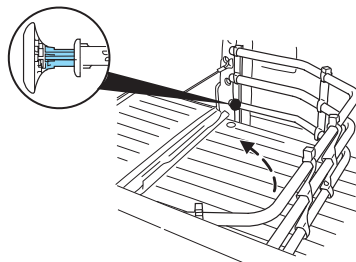
- Retain cargo with the pickup tie down hooks.

BED EXTENDER (IF EQUIPPED)

Your vehicle may be equipped with a bed extender designed to extend the pickup box for longer loads.

To extend the bed extender:

1. Lower tailgate.
2. Pull the round knobs on each side of the extender to release it from the pickup box.
3. Pivot extender on to the tailgate.

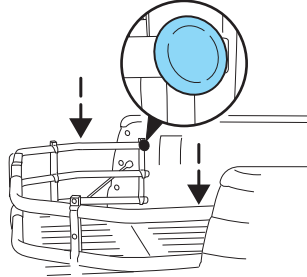


Driver Controls

4. Evenly push down on the extender and push the round knobs in on each side locking it in place.

Green markings on the shaft indicate the locked position. The locking clip screws below the middle bar can be tightened counterclockwise for extra security.

Note: If the red marking on the shaft is visible, the bed extender is not locked or properly secured.



To stow the bed extender, follow steps one through four in reverse order. The bed extender may be used to secure a load of up to 100 lb. (46 kg) on the tailgate.

The bed extender should always be kept in the stowed position with the tailgate closed when not in use.

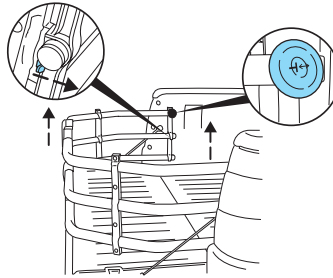
When driving the vehicle off road, the bed extender should be in the stowed position and the tailgate closed.

To remove the bed extender:

1. Extend the bed extender.
2. Pull the round knobs on each side of the extender to unlock it.

Make sure the locking clip screws are loose before removing the extender.

3. Press the locking clips below the middle bar on each side and lift the extender out of the bed.



Note: Remove and store the bed extender when not in use.

To install the bed extender, follow the removal procedure in reverse order.

Locks and Security

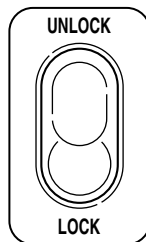
KEYS

The key operates all locks on your vehicle. You should always carry a second key with you in a safe place in case you require it in an emergency.

Your keys are programmed to your vehicle; using a non-programmed key will not permit your vehicle to start. If you lose your dealer supplied keys, replacement keys are available through your authorized dealer.

POWER DOOR LOCKS (IF EQUIPPED)

Press the top of the control to unlock all doors and the bottom to lock all doors.



REMOTE ENTRY SYSTEM (IF EQUIPPED)

This device complies with part 15 of the FCC rules and with RS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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

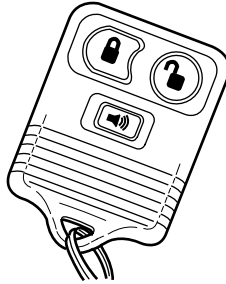
The typical operating range for your remote entry transmitter is approximately 33 feet (10 meters). A decrease in operating range could be caused by:

- weather conditions,
- nearby radio towers,
- structures around the vehicle, or
- other vehicles parked next to your vehicle.

Locks and Security

Your vehicle is equipped with a remote entry system which allows you to:

- unlock the vehicle doors without a key.
- lock all the vehicle doors without a key.
- activate the personal alarm.



If there is any potential remote keyless entry problem with your vehicle, ensure **ALL remote entry transmitters** are taken to the dealership, to aid in troubleshooting.

Unlocking the doors

1. Press  and release to unlock the driver's door. **Note:** The interior lamps will illuminate.
2. Press  and release again within three seconds to unlock all the doors.

Locking the doors

- Press  and release to lock all the doors. The park lamps will flash once to confirm lock; if any of the doors are not properly closed, the lamps will not flash.
- If  is pressed a second time within three seconds, the lamps will flash again and the horn will chirp to confirm all doors are locked and closed. If either door is ajar the lamps will not flash and the horn will chirp twice.

Sounding a panic alarm

Press  to activate the alarm. The horn will sound for a maximum of 30 seconds and the parklamps will flash for a maximum of 3 minutes. Press again or turn the ignition to ON to deactivate, or wait for the alarm to timeout in 3 minutes.

Note: The panic alarm will only operate when the ignition is in the OFF or ACC position.

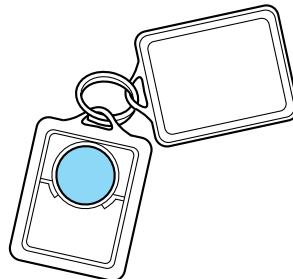
Replacing the battery

The remote entry transmitter uses one coin type three-volt lithium battery CR2032 or equivalent.

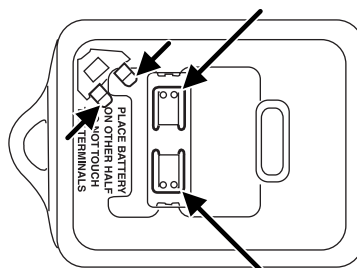
Locks and Security

To replace the battery:

1. Twist a thin coin between the two halves of the remote entry transmitter near the key ring. DO NOT TAKE THE RUBBER COVER AND CIRCUIT BOARD OFF THE FRONT HOUSING OF THE REMOTE ENTRY TRANSMITTER.



2. Do not wipe off any grease on the battery terminals on the back surface of the circuit board.



3. Remove the old battery. **Note:** Please refer to local regulations when disposing of transmitter batteries.

4. Insert the new battery. Refer to the diagram inside the remote entry transmitter for the correct orientation of the battery. Press the battery down to ensure that the battery is fully seated in the battery housing cavity.

5. Snap the two halves back together.

Note: Replacement of the battery will **not** cause the remote transmitter to become deprogrammed from your vehicle. The remote transmitter should operate normally after battery replacement.

Replacing lost remote entry transmitters

If you would like to have your remote entry transmitter reprogrammed because you lost one, or would like to buy additional remote entry transmitters, you can either reprogram them yourself, or take **all remote entry transmitters** to your authorized dealer for reprogramming.

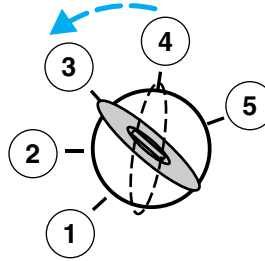
How to reprogram your remote entry transmitters

You must have **all remote entry transmitters** (maximum of four) available before beginning this procedure.

Locks and Security

To reprogram the remote entry transmitters:

1. Ensure the vehicle is electronically unlocked.
2. Put the key in the ignition.
3. Turn the key from the 2 (LOCK) position to 3 (OFF).
4. Cycle eight times rapidly (within 10 seconds) between the 3 (OFF) position and 4 (ON). **Note:** The eighth turn must end in the 4 (ON) position.
5. The doors will lock, then unlock, to confirm that the programming mode has been activated.
6. Within 20 seconds press any button on the remote entry transmitter. **Note:** If more than 20 seconds have passed you will need to start the procedure over again.
7. The doors will lock, then unlock, to confirm that this remote entry transmitter has been programmed.
8. Repeat Step 6 to program each additional remote entry transmitter.
9. Turn the ignition to the 3 (OFF) position after you have finished programming all of the remote entry transmitters. **Note:** After 20 seconds, you will automatically exit the programming mode.
10. The doors will lock, then unlock, to confirm that the programming mode has been exited.



Illuminated entry

The interior lamps illuminate when the remote entry system is used to unlock the door(s) or sound the personal alarm.

The illuminated entry system will turn off the interior lights if:

- the ignition switch is turned to the ON position, or
- the remote transmitter lock control is pressed, or
- after 25 seconds of illumination.

The inside lights will not turn off if:

- they have been turned on with the dimmer control, or
- any door is open.

The battery saver will shut off the interior lamps after several minutes if they are left on accidentally.

Seating and Safety Restraints

SEATING

Notes:



Reclining the seatback can cause an occupant to slide under the seat's safety belt, resulting in severe personal injuries in the event of a collision.



Do not pile cargo higher than the seatbacks to reduce the risk of injury in a collision or sudden stop.

Adjusting the front manual seat

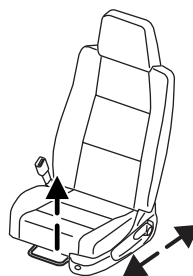


Never adjust the driver's seat or seatback when the vehicle is moving.

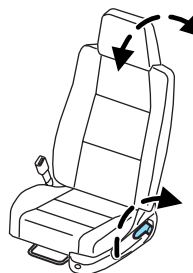


Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

Lift the release bar to move seat forward or backward. Ensure that the seat is locked into place.



Pull lever located at the side of the seat cushion up to adjust seatback.



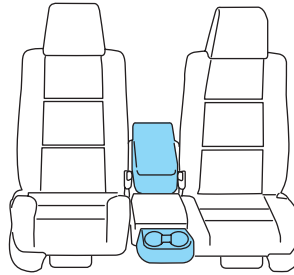
Seating and Safety Restraints

60/40 seat (if equipped)

To gain access to the storage compartment in your armrest (if equipped), lift the latch to open lid.

The 60/40 seat cupholder (if equipped) is detachable for cleaning.

- Firmly grasp the bottom of the cup holder and pull up.



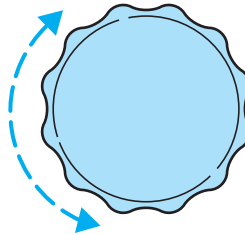
To re-attach:

- Slide the cupholder over the two pins located on the front of the 60% driver's seat.
- Press down until it is firmly latched into place.

Using the manual lumbar support (if equipped)

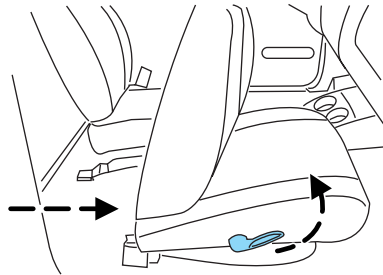
Turn the lumbar support control clockwise to increase firmness.

Turn the lumbar support control counterclockwise to increase softness.



Passenger side rear access

Pull up on the recliner handle. The seat will lean forward. Lift the release bar to move the seat forward to access the rear area of the cab.



Seating and Safety Restraints

To return seat to original position, slide the seat bottom back, then push the seatback up to lock it in place. The seat will lock, and you will have to use the release bar to move the seat back to the original position.

REAR SEATS

Center facing jump seat (2 door SuperCab) (if equipped)

To open, pull inboard and down on the seat strap.

To stow the seat, pull seat bottom back to the fully upright position.



Do not install a child seat in a center facing jump seat.

Center facing jump seat (4 door SuperCab) (if equipped)

To open, pull seat assembly down, then raise seatback.

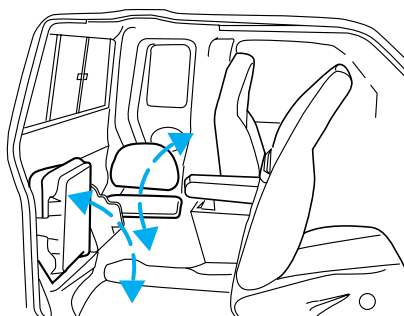
To stow the seat, fold seat back down and raise seat assembly to the fully upright position.



Do not install a child seat in a center facing jump seat.



Booster seats must be installed only in seating positions equipped with a combination lap/shoulder belt.



SAFETY RESTRAINTS

Safety restraints precautions



Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

Seating and Safety Restraints



To reduce the risk of injury, make sure children sit where they can be properly restrained.



Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.



All occupants of the vehicle, including the driver, should always properly wear their safety belts, even when an air bag supplemental restraint system (SRS) is provided.



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 safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.



In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a safety belt.



Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing the safety belt around your neck over the inside shoulder. 3) Never use a single belt for more than one person.

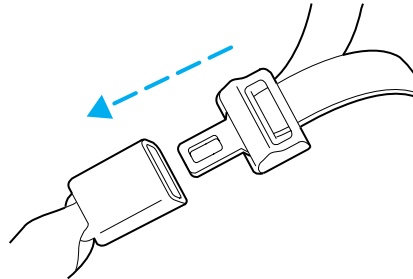


On four-door SuperCab vehicles, do not open the rear door when the rear safety belt is still buckled.

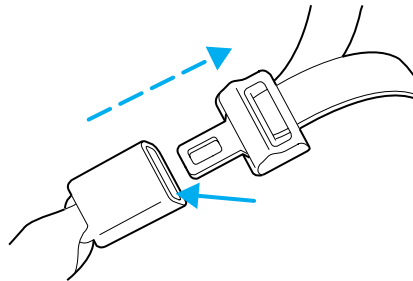
Seating and Safety Restraints

Combination lap and shoulder belts

1. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.



2. To unfasten, push the release button and remove the tongue from the buckle.



The front outboard safety restraints in the vehicle are combination lap and shoulder belts. The front passenger outboard safety belt has two types of locking modes described below:

Vehicle sensitive mode

This is the normal retractor mode, which allows free shoulder belt length adjustment to your movements and locking in response to vehicle movement. For example, if the driver brakes suddenly or turns a corner sharply, or the vehicle receives an impact of approximately 5 mph (8 km/h) or more, the combination safety belts will lock to help reduce forward movement of the driver and passengers.

Automatic locking mode

The automatic locking mode is not available on the driver safety belt.

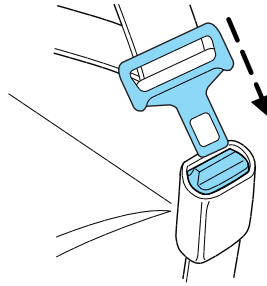
In this mode, the shoulder belt is automatically pre-locked. The belt will still retract to remove any slack in the shoulder belt. The automatic locking mode is not available on the driver safety belt.

Seating and Safety Restraints

This mode should be used **any time** a child safety seat is installed in a passenger front seat. Refer to *Safety restraints for children* or *Safety seats for children* later in this chapter.

How to use the automatic locking mode

- Buckle the combination lap and shoulder belt.



- Grasp the shoulder portion and pull downward until the entire belt is pulled out.



- 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.



After any vehicle collision, the seat belt system at all outboard seating positions (except driver, which has no “automatic locking retractor” feature) must be checked by a qualified technician to verify that the “automatic locking retractor” feature for child seats is still functioning properly. In addition, all safety belts should be checked for proper function.

Seating and Safety Restraints



BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the safety belt assembly “automatic locking retractor” feature or any other safety belt function is not operating properly when checked according to the procedures in Workshop Manual.



Failure to replace the Belt and Retractor assembly could increase the risk of injury in collisions.

Energy Management Feature

- This vehicle has a safety belt system with an energy management feature at the front outboard seating positions to help further reduce the risk of injury in the event of a head-on collision.
- This safety belt system has a retractor assembly that is designed to pay out webbing in a controlled manner. This feature is designed to help reduce the belt force acting on the occupant's chest.

Safety belt pretensioner

Your vehicle is equipped with safety belt pretensioners at the driver and front outboard passenger seating positions.

The safety belt pretensioners are designed to activate during certain frontal or near-frontal collisions with sufficient longitudinal deceleration. A safety belt pretensioner is a device which tightens the webbing of the lap and shoulder belts in such a way that they fit more snugly against the body.

The driver and front outboard passenger safety belt system (including retractors, buckle assembly, pretensioner assembly with seat and height adjusters) must be replaced if the vehicle is involved in a collision that results in the activation of the safety belt pretensioners. Refer to the *Safety belt maintenance* section in this chapter.



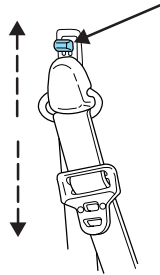
Failure to replace the safety belt assembly under the above conditions could result in severe personal injuries in the event of a collision.

Front safety belt height adjustment

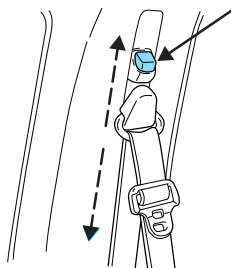
Your vehicle has safety belt height adjustments for the driver and front outboard passenger. Adjust the height of the shoulder belt so the belt rests across the middle of your shoulder.

Seating and Safety Restraints

- Regular Cab and 4-door Super Cab



- 2-door SuperCab



To lower the shoulder belt height, push the button and slide the height adjuster down. To raise the height of the shoulder belt, slide the height adjuster up. Pull down on the height adjuster to make sure it is locked in place.



Position the safety belt height adjusters so that the belt rests across the middle of your shoulder. Failure to adjust the safety belt properly could reduce the effectiveness of the seat belt and increase the risk of injury in a collision.

Lap belts

Adjusting the front center seat and rear center facing jump seat lap belts (if equipped)

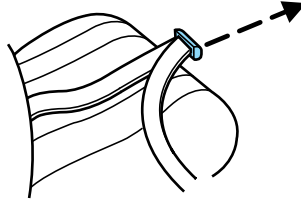
The lap belt does not adjust automatically.



The lap belt should fit snugly and as low as possible around the hips, not across the waist.

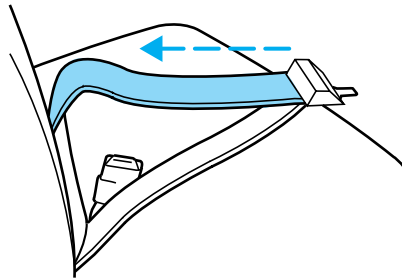
Seating and Safety Restraints

Insert the tongue into the correct buckle (the buckle closest to the direction the tongue is coming from). To lengthen the belt, turn the tongue at a right angle to the belt and pull across your lap until it reaches the buckle. To tighten the belt, pull the loose end of the belt through the tongue until it fits snugly across the hips.



Shorten and fasten the belt when not in use.

For the rear jump seat, shorten and fold the belt into the seat when not in use.



Safety belt extension assembly

If the safety belt is too short when fully extended, there is a 8 inch (20 cm) safety belt extension assembly that can be added (part number 611C22). This assembly can be obtained from your dealer at no cost.

Use only extensions manufactured by the same supplier as the safety belt. Manufacturer identification is located at the end of the webbing on the label. Also, use the safety belt extension only if the safety belt is too short for you when fully extended.



Do not use extensions to change the fit of the shoulder belt across the torso.

Safety belt warning light and indicator chime

The safety belt warning light illuminates in the instrument cluster and a chime sounds to remind the occupants to fasten their safety belts.

Seating and Safety Restraints

Conditions of operation

If...	Then...
The driver's safety belt is not buckled before the ignition switch is turned to the ON position...	The safety belt warning light illuminates 1-2 minutes and the warning chime sounds 4-8 seconds.
The driver's safety belt is buckled while the indicator light is illuminated and the warning chime is sounding...	The safety belt warning light and warning chime turn off.
The driver's safety belt is buckled before the ignition switch is turned to the ON position...	The safety belt warning light and indicator chime remain off.

BeltMinder

The BeltMinder feature is a supplemental warning to the safety belt warning function. This feature provides additional reminders to the driver that the driver's safety belt is unbuckled by intermittently sounding a chime and illuminating the safety belt warning lamp in the instrument cluster.

If...	Then...
The driver's safety belt is not buckled before the vehicle has reached at least 3 mph (5 km/h) and 1-2 minutes have elapsed since the ignition switch has been turned to ON...	The BeltMinder feature is activated - the safety belt warning light illuminates and the warning chime sounds for 6 seconds every 30 seconds, repeating for approximately 5 minutes or until safety belt is buckled.
The driver's safety belt is buckled while the safety belt indicator light is illuminated and the safety belt warning chime is sounding...	The BeltMinder feature will not activate.
The driver's safety belt is buckled before the ignition switch is turned to the ON position...	The BeltMinder feature will not activate.

Seating and Safety Restraints

The following are reasons most often given for not wearing safety belts
(All statistics based on U.S. data):

Reasons given...	Consider...
"Crashes are rare events"	36700 crashes occur every day. The more we drive, the more we are exposed to "rare" events, even for good drivers. <i>1 in 4 of us will be seriously injured in a crash during our lifetime.</i>
"I'm not going far"	3 of 4 fatal crashes occur within 25 miles (40 km) of home.
"Belts are uncomfortable"	We design our safety belts to enhance comfort. If you are uncomfortable - try different positions for the safety belt upper anchorage and seatback which should be as upright as possible; this can improve comfort.
"I was in a hurry"	Prime time for an accident. BeltMinder reminds us to take a few seconds to buckle up.
"Safety belts don't work"	Safety belts , when used properly, reduce risk of death to front seat occupants by 45% in cars , and by 60% in light trucks .
"Traffic is light"	Nearly 1 of 2 deaths occur in single-vehicle crashes , many when no other vehicles are around.
"Belts wrinkle my clothes"	Possibly, but a serious crash can do much more than wrinkle your clothes, particularly if you are unbelted.
"The people I'm with don't wear belts"	Set the example, teen deaths occur 4 times more often in vehicles with TWO or MORE people. Children and younger brothers/sisters imitate behavior they see.
"I have an air bag"	Air bags offer greater protection when used with safety belts. Frontal airbags are not designed to inflate in rear and side crashes or rollovers.
"I'd rather be thrown clear"	Not a good idea. People who are ejected are 40 times more likely to DIE . Safety belts help prevent ejection, WE CAN'T "PICK OUR CRASH".

Seating and Safety Restraints



Do not sit on top of a buckled safety belt to avoid the Belt Minder chime. Sitting on the safety belt will increase the risk of injury in an accident. To disable (one-time) or deactivate the Belt Minder feature please follow the directions stated below.

One time disable

Any time the safety belt is buckled and then unbuckled during an ignition ON cycle, the BeltMinder will be disabled for that ignition cycle only.

Deactivating/activating the BeltMinder feature

Read steps 1 - 9 thoroughly before proceeding with the deactivation/activation programming procedure.

The BeltMinder feature can be deactivated/activated by performing the following procedure:

Before following the procedure, ensure that the following conditions are met:

- The parking brake is set.
- The gearshift is in P (Park) (automatic transmission) or the neutral position (manual transmission).
- The ignition switch is in the OFF position.
- All vehicle doors are closed.
- The driver's safety belt is unbuckled.
- The parklamps/headlamps are in OFF position (If vehicle is equipped with Autolamps, this will not affect the procedure).



To reduce the risk of injury, do not deactivate/activate the BeltMinder feature while driving the vehicle.

BeltMinder activation and deactivation procedure

1. Turn the ignition switch to the RUN (or ON) position. (DO NOT START THE ENGINE.)
2. Wait until the safety belt warning light turns off. (Approximately 1–2 minutes.)
 - Steps 3–5 must be completed within 60 seconds or the procedure will have to be repeated.
3. Buckle then unbuckle the safety belt three times, ending with the safety belt unbuckled. This can be done before or during BeltMinder warning activation.

Seating and Safety Restraints

4. Turn on the parklamps/headlamps, turn off the parklamps/headlamps.
5. Buckle then unbuckle the safety belt three times, ending with the safety belt unbuckled.
 - After step 5 the safety belt warning light will be turned on for three seconds.
6. Within seven seconds of the safety belt warning light turning off, buckle then unbuckle the safety belt.
 - This will disable BeltMinder if it is currently enabled, or enable BeltMinder if it is currently disabled.
7. Confirmation of disabling BeltMinder is provided by the safety belt warning light flashing four times per second for three seconds.
8. Confirmation of enabling BeltMinder is provided by:
 - The safety belt warning light flashing four times per second for three seconds.
 - Followed by three seconds with the safety belt warning light off.
 - Once again, the safety belt warning light will flash four times per second for three seconds.
9. After receiving confirmation, the deactivation/activation procedure is complete.

Safety belt maintenance

Inspect the safety belt systems periodically to make sure they work properly and are not damaged. Inspect the safety belts to make sure there are no nicks, tears or cuts. Replace if necessary. All safety belt assemblies, including retractors, buckles, front safety belt buckle assemblies, buckle support assemblies (slide bar-if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seatback (if equipped), child safety seat LATCH and tether anchors, and attaching hardware, should be inspected after a collision. Ford Motor Company recommends that all safety belt assemblies in use in vehicles involved in a collision be replaced. However, if the collision was minor and a qualified technician finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

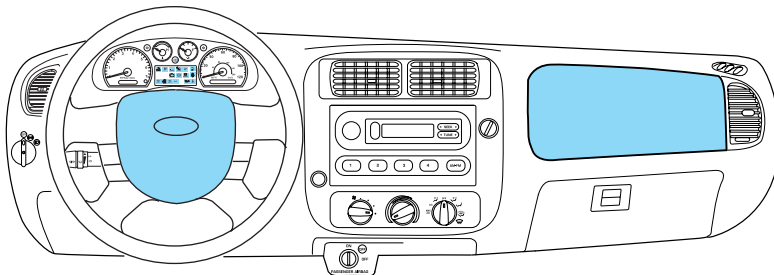
The energy absorbing functions may have been activated in a collision so the restraints should be examined; if the front air bags have deployed, the pretensioners have also deployed and must be replaced — regardless of whether there was an occupant in the passenger seat or not.

Seating and Safety Restraints

 Failure to inspect and if necessary replace the safety belt assembly under the above conditions could result in severe personal injuries in the event of a collision.

Refer to *Interior* in the *Cleaning* chapter.

AIR BAG SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



Important supplemental restraint system (SRS) precautions

The supplemental restraint system is designed to work with the safety belt to help protect the driver and right front passenger from certain upper body injuries.

Air bags DO NOT inflate slowly or gently and the risk of injury from a deploying air bag is greatest close to the trim covering the air bag module.

 Never place a rear facing infant seat in the front seat unless the passenger air bag is turned off.

 All occupants of the vehicle, including the driver, should always properly wear their safety belts, even when an air bag supplemental restraint system (SRS) is provided.



Seating and Safety Restraints



National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of at least 25 cm (10 inches) between an occupant's chest and the driver air bag module.



Never place your arm over the air bag module as a deploying air bag can result in serious arm fractures or other injuries.

Steps you can take to properly position yourself away from the airbag:

- Move your seat to the rear as far as you can while still reaching the pedals comfortably.
- Recline the seat slightly (one or two degrees) from the upright position.



Do not put anything on or over the air bag module. Placing objects on or over the air bag inflation area may cause those objects to be propelled by the air bag into your face and torso causing serious injury.



Do not attempt to service, repair, or modify the Air Bag Supplemental Restraint System or its fuses. See your Ford or Lincoln Mercury dealer.



The front passenger air bag is not designed to offer protection to an occupant in the center front seating position.



Modifying or adding equipment to the front end of the vehicle (including frame, bumper, front end body structure and tow hooks) may affect the performance of the air bag system, increasing the risk of injury. Do not modify the front end of the vehicle.



Additional equipment may affect the performance of the air bag sensors increasing the risk of injury. Please refer to the *Body Builders Layout Book* for instructions about the appropriate installation of additional equipment.

Seating and Safety Restraints

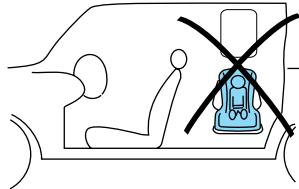
Children and air bags

For additional important safety information, read all information on safety restraints in this guide.



 Never place a rearward facing child safety restraint in front of an activated airbag. Airbags have been known to kill or injure children in front facing child safety restraints. Whenever placing a child safety seat in a front seating position (including center if equipped), turn off the passenger side air bag switch after being certain the child is properly restrained. If using a forward facing child safety restraint in the front outboard seat, slide the seat all the way back, and turn off the passenger air bag. If using a rear facing child safety seat in the front outboard seating position, make sure the passenger airbag is turned off and slide the passenger seat all the way forward until the safety seat rests on the dashboard. See *Passenger air bag on/off switch* in this chapter.

 Do not install a child seat in a center facing jump seat.



 An air bag can kill or injure a child in a child seat. Child seats should never be placed in the front seats, unless passenger air bag switch is turned off. See *Passenger air bag on/off switch* in this chapter.

 Rear facing child seats should NEVER be placed in the front seats unless the passenger airbag switch is turned off.

Seating and Safety Restraints



Booster seats must be installed only in seating positions equipped with a combination lap/shoulder belt.



To reduce the risk of injury, make sure children sit where they can be properly restrained.

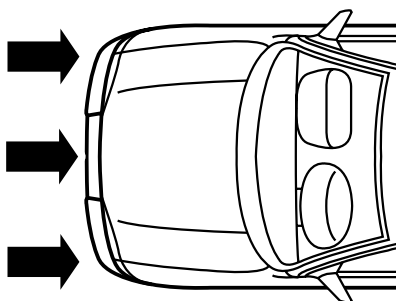
How does the air bag supplemental restraint system work?

The air bag SRS is designed to activate when the vehicle sustains sufficient longitudinal deceleration.

The fact that the air bags did not inflate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to cause activation. Air bags are designed to inflate in frontal and near-frontal collisions, not rollover, side-impact, or rear-impacts.

The air bags inflate and deflate rapidly upon activation. After air bag deployment, it is normal to notice a smoke-like, powdery residue or smell the burnt propellant. This may consist of cornstarch, talcum powder (to lubricate the bag) or sodium compounds (e.g., baking soda) that result from the combustion process that inflates the air bag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic.

While the system is designed to help reduce serious injuries, it may also cause minor abrasions, swelling or temporary hearing loss. Because air bags must inflate rapidly and with considerable force, there is the risk of death or serious injuries such as fractures, facial and eye injuries or internal injuries, particularly to occupants who are not properly



Seating and Safety Restraints

restrained or are otherwise out of position at the time of air bag deployment. Thus, it is extremely important that occupants be properly restrained as far away from the air bag module as possible while maintaining vehicle control.



Several air bag system components get hot after inflation. Do not touch them after inflation.



If the air bag has deployed, **the air bag will not function again and must be replaced immediately**. If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.

The SRS consists of:

- driver and passenger air bag modules (which include the inflators and air bags),
- one or more impact and safing sensors, passenger air bag deactivation switch and diagnostic monitor (RCM)
- a readiness light and tone,
- and the electrical wiring which connects the components.

The RCM (restraints control module) monitors its own internal circuits and the supplemental air bag electrical system wiring (including the passenger air bag deactivation switch, the impact sensors, the system wiring, the air bag system readiness light, the air bag back up power and the air bag ignitors).

Determining if the system is operational

The SRS uses readiness lights in the instrument cluster and the passenger air bag deactivate switch or a tone to indicate the condition of the system. Refer to the *Air bag readiness* section in the *Instrument cluster* chapter or *Passenger air bag on/off switch* section in this chapter. Routine maintenance of the air bag is not required.

A difficulty with the system is indicated by one or more of the following:

- The readiness lights will either flash or stay lit.
- The readiness lights will not illuminate immediately after ignition is turned on.



Seating and Safety Restraints

- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and/or light are repaired.

If any of these things happen, even intermittently, have the SRS serviced at your dealership or by a qualified technician immediately. Unless serviced, the system may not function properly in the event of a collision.

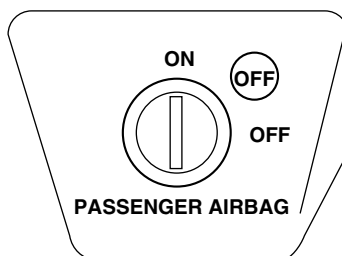
Disposal of air bags and air bag equipped vehicles (including pretensioners)

See your local dealership or qualified technician. Air bags **MUST BE** disposed of by qualified personnel.

Passenger air bag ON/OFF switch



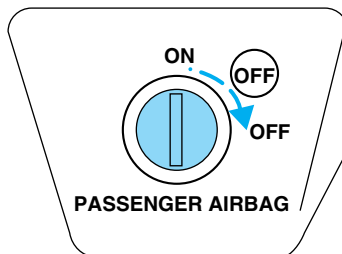
An air bag ON/OFF switch has been installed in this vehicle. Before driving, *always* look at the face of the switch to be sure the switch is in the proper position in accordance with these instructions and warnings. Failure to put the switch in a proper position can increase the risk of serious injury or death in a collision.



Turning the passenger air bag off

The passenger air bag on/off switch is located below the center stack of the instrument panel or in the center console.

1. Insert the ignition key, turn the switch to OFF position and hold in OFF position while removing the key.
2. When the ignition is turned to the ON position the OFF light illuminates briefly, momentarily shuts off and then turns back on. This indicates that the passenger air bag is deactivated.



Seating and Safety Restraints

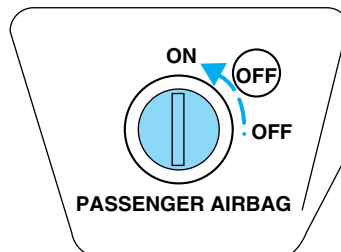
 If the light fails to illuminate when the passenger air bag switch is in the OFF position and the ignition switch is in the On position, have the passenger air bag switch serviced at your Ford or Lincoln-Mercury dealer immediately.

 In order to avoid inadvertent activation of the switch, always remove the ignition key from the passenger air bag ON/OFF switch.

Turning the passenger air bag back on

The passenger air bag remains OFF until you turn it back ON.

1. Insert the ignition key and turn the switch to ON.
2. The OFF light will briefly illuminate when the ignition is turned to ON. This indicates that the passenger air bag is operational.



 If the OFF light is illuminated when the passenger air bag ON/OFF switch is in the ON position and the ignition switch is ON, have the passenger air bag ON/OFF switch serviced at your Ford or Lincoln-Mercury dealer immediately.

 The safety belts for the driver and right front passenger seating positions have been specifically designed to function together with the air bags in certain types of crashes. When you turn OFF your air bag, you not only lose the protection of the air bag, you also may reduce the effectiveness of your safety belt system, which was designed to work with the air bag. If you are not a person who meets the requirements stated in the NHTSA/Transport Canada deactivation criteria turning OFF the air bag can increase the risk of serious injury or death in a collision.

Seating and Safety Restraints



Always use safety belts and child restraints properly. If a child in a rear facing infant seat must be transported in front, the passenger air bag *must* be turned OFF. This is because the back of the infant seat is too close to the inflating air bag and the risk of a fatal injury to the infant when the air bag inflates is substantial.

The vast majority of drivers and passengers are much safer with an air bag than without. To do their job and reduce the risk of life threatening injuries, air bags must open with great force, and this force can pose a potentially deadly risk in some situations, particularly when a front seat occupant is not properly buckled up. The most effective way to reduce the risk of unnecessary air bag injuries without reducing the overall safety of the vehicle is to make sure all occupants are properly restrained in the vehicle, especially in the front seat. This provides the protection of safety belts and permits the air bags to provide the additional protection they were designed to provide. If you choose to deactivate your air bag, you are losing the very significant risk reducing benefits of the air bag and you are also reducing the effectiveness of the safety belts, because safety belts in modern vehicles are designed to work as a safety system with the air bags.

Read all air bag Warning labels in the vehicle as well as the other important air bag instructions and Warnings in this Owner's Guide.

The passenger side air bag should always be ON (the air bag OFF light should *not* be illuminated) unless the passenger is a person who meets the requirements stated either in Category 1, 2 or 3 of the NHTSA/Transport Canada deactivation criteria which follows.

NHTSA deactivation criteria (excluding Canada)

1. **Infant.** An infant (less than 1 year old) must ride in the front seat because:

- the vehicle has no rear seat;
- the vehicle has a rear seat too small to accommodate a rear-facing infant seat; or
- the infant has a medical condition which, according to the infant's physician, makes it necessary for the infant to ride in the front so that the driver can constantly monitor the child's condition.

2. **Child age 1 to 12.** A child age 1 to 12 must ride in the front seat because:

- the vehicle has no rear seat;

Seating and Safety Restraints

- although children ages 1 to 12 ride in the rear seat(s) whenever possible, children ages 1 to 12 sometimes must ride in the front because no space is available in the rear seat(s) of the vehicle; or
 - the child has a medical condition which, according to the child's physician, makes it necessary for the child to ride in the front seat so that the driver can constantly monitor the child's condition.
3. **Medical condition.** A passenger has a medical condition which, according to his or her physician:
- causes the passenger air bag to pose a special risk for the passenger; and
 - makes the potential harm from the passenger air bag in a crash greater than the potential harm from turning OFF the air bag and allowing the passenger, even if belted, to hit the dashboard or windshield in a crash.



This vehicle has special energy management safety belts for the driver and right front passenger. These particular belts are specifically designed to work with air bags to help reduce the risk of injury in a collision. The energy management safety belt is designed to give or release additional belt webbing in some accidents to reduce concentration of force on an occupant's chest and reduce the risk of certain bone fractures and injuries to underlying organs. In a crash, if the air bag is turned OFF, this energy management safety belt might permit the person wearing the belt to move forward enough to incur a serious or fatal injury. The more severe the crash, and the heavier the occupant, the greater the risk. Be sure the air bag is turned ON for any person who does not qualify under the NHTSA deactivation criteria.

Transport Canada deactivation criteria (Canada Only)

1. **Infant:** An infant (less than 1 year old) must ride in the front seat because:
- the vehicle has no rear seat;
 - the rear seat in the vehicle cannot accommodate a rear-facing infant seat; or
 - the infant has a medical condition which, according to the infant's physician, makes it necessary for the infant to ride in the front seat so that the driver can monitor the infant's condition.
2. **Child age 12 or under:** A child age 12 or under must ride in the front seat because:

Seating and Safety Restraints

- the vehicle has no rear seat;
- although children age 12 and under ride in the rear seat whenever possible, children age 12 and under have no option but to sometimes ride in the front seat because rear seat space is insufficient; or
- the child has a medical condition that, according to the child's physician, makes it necessary for the child to ride in the front seat so that the driver can monitor the child's condition.

3. **Medical condition:** A passenger has a medical condition that, according to his or her physician:

- poses a special risk for the passenger if the air bag deploys; and
- makes the potential harm from the passenger air bag deployment greater than the potential harm from turning OFF the air bag and experiencing a crash without the protection offered by the air bag.



This vehicle has special energy management safety belts for the driver and right front passenger. These particular belts are specifically designed to work with air bags to help reduce the risk of injury in a collision. The energy management safety belt is designed to give or release additional belt webbing in some accidents to reduce concentration of force on an occupant's chest and reduce the risk of certain bone fractures and injuries to underlying organs. In a crash, if the air bag is turned OFF, this energy management safety belt might permit the person wearing the belt to move forward enough to incur a serious or fatal injury. The more severe the crash, and the heavier the occupant, the greater the risk. Be sure the air bag is turned ON for any person who does not qualify under the Transport Canada deactivation criteria.

SAFETY RESTRAINTS FOR CHILDREN

See the following sections for directions on how to properly use safety restraints for children. Also see *Air bag supplemental restraint system (SRS)* in this chapter for special instructions about using air bags.

Important child restraint precautions

You are required by law to use safety restraints for children in the U.S. and Canada. If small children ride in your vehicle (generally children who are four years old or younger and who weigh 40 lb. [18 kg] or less), you must put them in safety seats made especially for children. Many states require that children use approved booster seats until they are eight

Seating and Safety Restraints

years old. Check your local and state or provincial laws for specific requirements regarding the safety of children in your vehicle.



Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

Always follow the instructions and warnings that come with any infant or child restraint you might use.



Do not install a child seat in a center facing jump seat.

Children and safety belts

If the child is the proper size, restrain the child in a safety seat. Children who are too large for child safety seats (as specified by your child safety seat manufacturer) should always wear safety belts.

Follow all the important safety restraint and air bag precautions that apply to adult passengers in your vehicle.

If the shoulder belt portion of a combination lap and shoulder belt can be positioned so it does not cross or rest in front of the child's face or neck, the child should wear the lap and shoulder belt. Moving the child closer to the center of the vehicle may help provide a good shoulder belt fit.



Do not leave children, unreliable adults, or pets unattended in your vehicle.

Child booster seats

Children outgrow a typical convertible or toddler seat when they weigh 40 pounds (18 kg) and are around 4 years of age. Although the lap/shoulder belt will provide some protection, these children are still too small for lap/shoulder belts to fit properly, which could increase the risk of serious injury.

To improve the fit of both the lap and shoulder belt on children who have outgrown child safety seats, Ford Motor Company recommends use of a belt-positioning booster.

Booster seats position a child so that safety belts fit better. They lift the child up so that the lap belt rests low across the hips and the knees

Seating and Safety Restraints

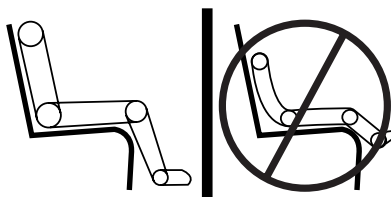
bend comfortably. Booster seats also make the shoulder belt fit better and more comfortably for growing children.

When children should use booster seats

Children need to use booster seats from the time they outgrow the toddler seat until they are big enough for the vehicle seat and lap/shoulder belt to fit properly. Generally this is when they weigh about 80 lb. (36 kg) (about 8 to 12 years old).

Booster seats should be used until you can answer YES to ALL of these questions:

- Can the child sit all the way back against the vehicle seat back with knees bent comfortably at the edge of the seat without slouching?



- Does the lap belt rest low across the hips?
- Is the shoulder belt centered on the shoulder and chest?
- Can the child stay seated like this for the whole trip?

Types of booster seats

There are two types of belt-positioning booster seats:

- Those that are backless.

If your backless booster seat has a removable shield, remove the shield and use the lap/shoulder belt. If a seating position has a low seat back and no head restraint, a backless booster seat may place your child's head (top of ear level) above the top of the seat. In this case, move the backless booster to another seating position with a higher seat back and lap/shoulder belts.



Seating and Safety Restraints

- Those with a high back.

If, with a backless booster seat, you cannot find a seating position that adequately supports your child's head, a high back booster seat would be a better choice.



Both can be used in any vehicle in a seating position equipped with lap/shoulder belts if your child is over 40 lb. (18 kg).

The shoulder belt should cross the chest, resting snugly on the center of the shoulder. The lap belt should rest low and snug across the hips, never up high across the stomach.

If the booster seat slides on the vehicle seat, placing a rubberized mesh sold as shelf or carpet liner under the booster seat may improve this condition.

The importance of shoulder belts

Using a booster without a shoulder belt increases the risk of a child's head hitting a hard surface in a collision. For this reason, you should never use a booster seat with a lap belt only. It is best to use a booster seat with lap/shoulder belts in the back seat- the safest place for children to ride.



Follow all instructions provided by the manufacturer of the booster seat.



Never put the shoulder belt under a child's arm or behind the back because it eliminates the protection for the upper part of the body and may increase the risk of injury or death in a collision.



Never use pillows, books, or towels to boost a child. They can slide around and increase the likelihood of injury or death in a collision.

Seating and Safety Restraints

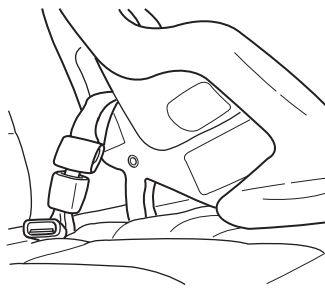
SAFETY SEATS FOR CHILDREN

Child and infant or child safety seats

Use a safety seat that is recommended for the size and weight of the child. Carefully follow all of the manufacturer's instructions with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

When installing a child safety seat:

- Review and follow the information presented in the *Air bag supplemental restraint system* (SRS) section in this chapter.
- Use the correct safety belt buckle for that seating position (the buckle closest to the direction the tongue is coming from).
- Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.
- Keep the buckle release button pointing up and away from the safety seat, with the tongue between the child seat and the release button, to prevent accidental unbuckling.
- Place seat back in upright position.
- Put the safety belt in the automatic locking mode. Refer to *Automatic locking mode* (passenger side front and outboard rear seating positions) (if equipped) section in this chapter.
- LATCH lower anchors are recommended for use by children up to 22 kg (48 pounds) in a child restraint. Top tether anchors can be used for children up to 27 kg (60 pounds) in a child restraint, and to provide upper torso restraint for children up to 36 kg (80 pounds) using an upper torso harness and a belt-positioning booster.



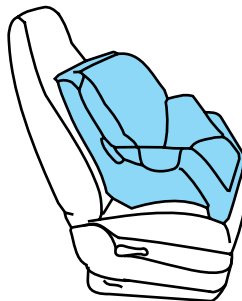
Ford recommends the use of a child safety seat having a top tether strap. Install the child safety seat in a seating position with LATCH and tether anchors. For more information on top tether straps and anchors, refer to *Attaching safety seats with tether straps* in this chapter. For more information of LATCH anchors refer to *Attaching safety seats with LATCH (Lower Anchors and Tethers for Children) attachments* in this chapter.

Seating and Safety Restraints

 Carefully follow all of the manufacturer's instructions included with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

Installing child safety seats with combination lap and shoulder belts

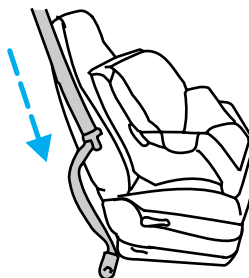
1. Position the child safety seat in a seat with a combination lap and shoulder belt.



 An air bag can kill or injure a child in a child seat. Child seats should NEVER be placed in the front seats, unless the passenger air bag switch is turned off. See *Passenger air bag on/off switch*.

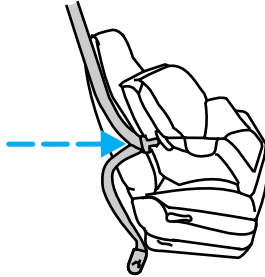
 Rear facing child seats should NEVER be placed in the front seats unless the passenger airbag switch is turned off.

2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.

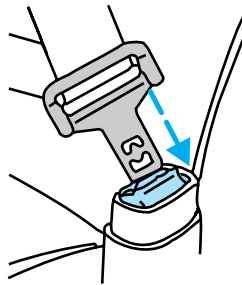


Seating and Safety Restraints

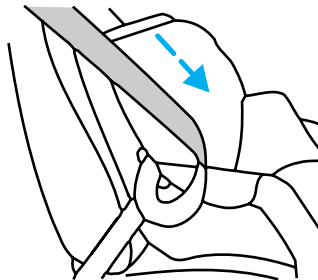
3. While holding the shoulder and lap belt portions together, route the tongue through the child seat according to the child seat manufacturer's instructions. Be sure the belt webbing is not twisted.



4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear and feel the latch engage. Make sure the tongue is latched securely by pulling on it.



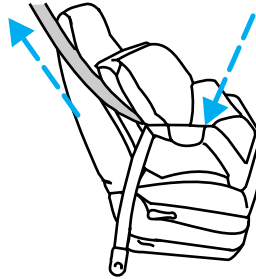
5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until all of the belt is extracted and a click is heard.



6. Allow the belt to retract. The belt will click as it retracts to indicate it is in the automatic locking mode.

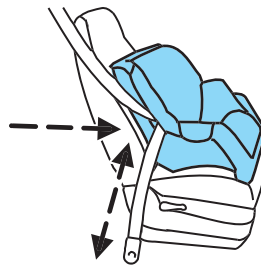
Seating and Safety Restraints

7. Pull the lap belt portion across the child seat toward the buckle and pull up on the shoulder belt while pushing down with knee on the child seat.



8. Allow the safety belt to retract to remove any slack in the belt.

9. Before placing the child in the seat, forcibly tilt the seat forward and back to make sure the seat is securely held in place. To check this, grab the seat at the belt path and attempt to move it side to side and forward. There should be no more than one inch of movement for proper installation.



10. Try to pull the belt out of the retractor to make sure the retractor is in the automatic locking mode (you should not be able to pull more belt out). If the retractor is not locked, unbuckle the belt and repeat steps two through nine.

Check to make sure the child seat is properly secured before each use.

Attaching child safety seats with tether straps

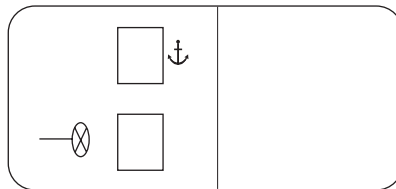
Most new forward-facing child safety seats include a tether strap which goes over the back of the seat and hooks to an anchoring point. Tether straps are available as an accessory for many older safety seats. Contact the manufacturer of your child seat for information about ordering a tether strap.

The tether anchors in your vehicle are located on the back of the front seat cushion.

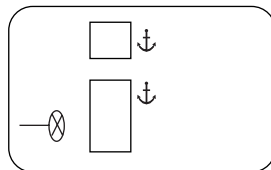
Seating and Safety Restraints

The tether strap anchors in your vehicle are in the following positions (shown from top view):

- **Bucket seats**

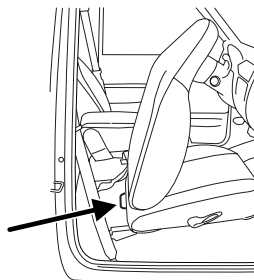


- **60/40 seats**



Attach the tether strap only to the appropriate tether anchor as shown. The tether strap may not work properly if attached somewhere other than the correct tether anchor.

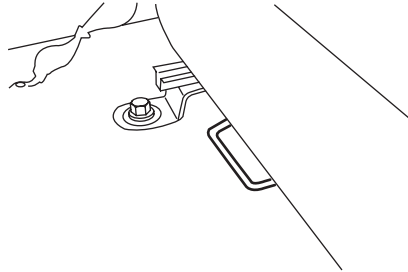
1. Position the child safety seat on the front seat cushion.
2. Route the child safety seat tether strap over the back of the seat.



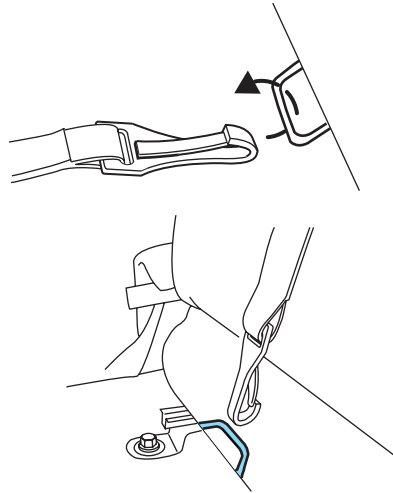
Seating and Safety Restraints

3. Locate the correct anchor for the selected seating position.

The tether anchor is located on the rear lower portion of the passenger seat.

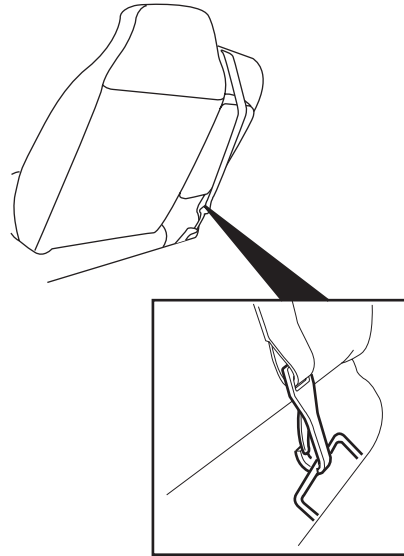


4. Clip the tether strap to the anchor.



Seating and Safety Restraints

Center seating location



When installing a child safety seat in the front center position, route the tether strap over the center arm rest and clip it to the center anchor.



If the tether strap is clipped incorrectly, the child safety seat may not be retained properly in the event of a collision.

5. Install the child safety seat tightly using the safety belt. Follow the instructions in this chapter.

6. Tighten the child safety seat tether strap according to the manufacturer's instructions.



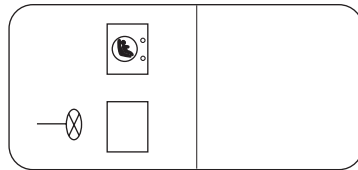
If the safety seat is not anchored properly, the risk of a child being injured in a collision greatly increases.

Seating and Safety Restraints

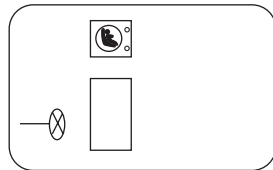
Attaching safety seats with LATCH (Lower Anchors and Tethers for Children) attachments for child seat anchors

Some child safety seats have two rigid or webbing mounted attachments that connect to two anchors at certain seating positions in your vehicle. This type of child seat eliminates the need to use safety belts to attach the child seat. For forward-facing child seats, the tether strap must also be attached to the proper tether anchor. See *Attaching safety seats with tether straps* in this chapter.

Your vehicle may be equipped with LATCH anchors for child seat installation at the following seating positions:



- Bucket seats



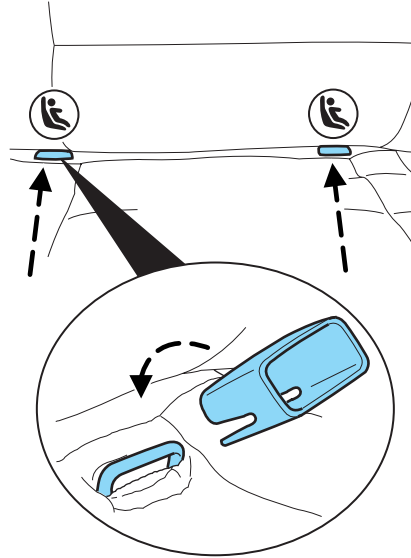
- 60/40 seats



Never attach two LATCH child safety seats to the same anchor. In a crash, one anchor may not be strong enough to hold two child safety seat attachments and may break, causing serious injury or death.

Seating and Safety Restraints

The lower anchors for child seat installation are located at the rear section of the front passenger seat between the cushion and seat back. The LATCH anchors are below the locator symbols on the seat back. Two plastic LATCH guides may be obtained at no charge from any Ford dealer (part number 1W4Z-54613F16-AA). They snap onto the LATCH lower anchor in the vehicle to help attach a child seat with rigid LATCH attachments. It will hold the seat foam away and expose the anchor making attachment of the child seat easier.



Follow the child seat manufacturer's instructions to properly install a child seat with LATCH attachments.



Attach LATCH lower attachments of the child seat only to the anchors shown.

If you install a child seat with rigid LATCH attachments, do not tighten the tether strap enough to lift the child seat off the vehicle seat cushion when the child is seated in it. Keep the tether strap just snug without lifting the front of the child seat. Keeping the child seat just touching the vehicle seat gives the best protection in a severe crash.

Each time you use the safety seat, check that the seat is properly attached to the lower anchors and tether anchor. Try to tilt the child seat from side to side. Also try to tug the seat forward. Check to see if the anchors hold the seat in place.

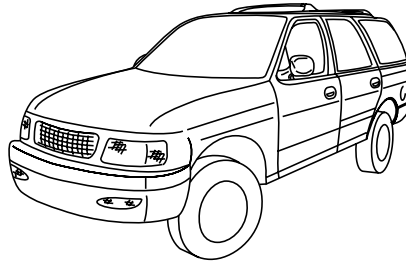


If the safety seat is not anchored properly, the risk of a child being injured in a crash greatly increases.

Tires, Wheels and Loading

NOTICE TO UTILITY VEHICLE AND TRUCK OWNERS

Utility vehicles and trucks handle differently than passenger cars in the various driving conditions that are encountered on streets, highways and off-road. Utility vehicles and trucks are not designed for cornering at speeds as high as passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions.



Utility vehicles have a significantly higher rollover rate than other types of vehicles. To reduce the risk of serious injury or death from a rollover or other crash you must:

- Avoid sharp turns and abrupt maneuvers;
- Drive at safe speeds for the conditions;
- Keep tires properly inflated;
- Never overload or improperly load your vehicle; and
- Make sure every passenger is properly restrained.



In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. All occupants must wear safety belts and children/infants must use appropriate restraints to minimize the risk of injury or ejection.

Study your *Owner's Guide* and any supplements for specific information about equipment features, instructions for safe driving and additional precautions to reduce the risk of an accident or serious injury.

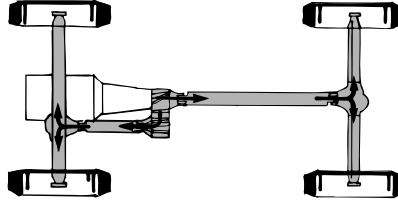
VEHICLE CHARACTERISTICS

4WD and AWD Systems (if equipped)

A vehicle equipped with AWD or 4WD (when you select the 4WD mode) has the ability to use all four wheels to power itself. This increases traction which may enable you to safely drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot.

Tires, Wheels and Loading

Power is supplied to all four wheels through a transfer case or power transfer unit. 4WD vehicles allow you to select different drive modes as necessary. Information on shifting procedures and maintenance can be found in your *Owner's Guide*. You should become thoroughly familiar with this information before you operate your vehicle.



On some 4WD models, the initial shift from two-wheel drive to 4WD while the vehicle is moving can cause a momentary clunk and ratcheting sound. These sounds are normal as the front drivetrain comes up to speed and is not cause for concern.

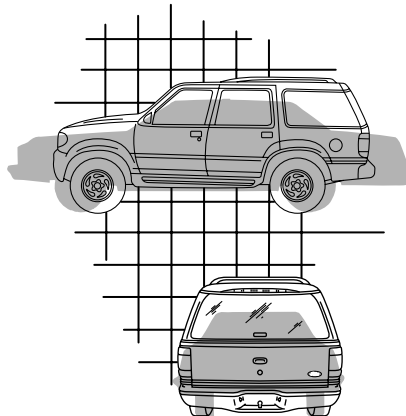


Do not become overconfident in the ability of 4WD and AWD vehicles. Although a 4WD or AWD vehicle may accelerate better than two-wheel drive vehicle in low traction situations, it won't stop any faster than two-wheel drive vehicles. Always drive at a safe speed.

How your vehicle differs from other vehicles

SUV and trucks can differ from some other vehicles in a few noticeable ways. Your vehicle may be:

- Higher – to allow higher load carrying capacity and to allow it to travel over rough terrain without getting hung up or damaging underbody components.
- Shorter – to give it the capability to approach inclines and drive over the crest of a hill without getting hung up or damaging underbody components. All other things held equal, a shorter wheelbase may make your vehicle quicker to respond to steering inputs than a vehicle with a longer wheelbase.

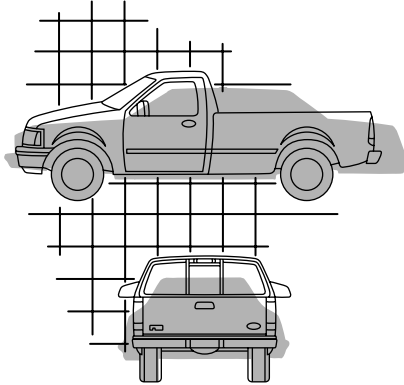


Tires, Wheels and Loading

- Narrower — to provide greater maneuverability in tight spaces, particularly in off-road use.

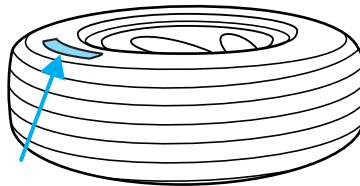
As a result of the above dimensional differences, SUV's and trucks often will have a higher center of gravity and a greater difference in center of gravity between the loaded and unloaded condition.

These differences that make your vehicle so versatile also make it handle differently than an ordinary passenger car.



INFORMATION ABOUT UNIFORM TIRE QUALITY GRADING

New vehicles are fitted with tires that have a rating on them called Tire Quality Grades. The Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:



- **Treadwear 200 Traction AA Temperature A**

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

Tire Quality Grades apply to new pneumatic tires for use on passenger cars. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 10 to 12 inches or limited production tires as defined in Title 49 Code of Federal Regulations Part 575.104(c)(2).

U.S. Department of Transportation-Tire quality grades: The U.S. Department of Transportation requires Ford to give you the following information about tire grades exactly as the government has written it.

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

Tires, Wheels and Loading

and one-half (1 1/2) 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 AA A B C

The traction grades, from highest to lowest are AA, A, B, and C. The 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.



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 A B C

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.



The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

TIRES

Tires are designed to give many thousands of miles of service, but they must be maintained in order to get the maximum benefit from them.

Glossary of tire terminology

- **Tire label:** A label showing the OE (Original Equipment) tire sizes, recommended inflation pressure and the maximum weight the vehicle can carry.

Tires, Wheels and Loading

- **Tire Identification Number (TIN):** A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture.
- **Inflation pressure:** A measure of the amount of air in a tire.
- **Standard load:** A class of P-metric or Metric tires designed to carry a maximum load at 35 psi [37 psi (2.5 bar) for Metric tires]. Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.
- **Extra load:** A class of P-metric or Metric tires designed to carry a heavier maximum load at 41 psi [43 psi (2.9 bar) for Metric tires]. Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.
- **kPa:** Kilopascal, a metric unit of air pressure.
- **PSI:** Pounds per square inch, a standard unit of air pressure.
- **Cold inflation pressure:** The tire pressure when the vehicle has been stationary and out of direct sunlight for an hour or more and prior to the vehicle being driven for 1 mile (1.6 km).
- **Recommended inflation pressure:** The cold inflation pressure found on the tire label located on the B-Pillar or the edge of the driver's door.
- **B-pillar:** The structural member at the side of the vehicle behind the front door.
- **Bead area of the tire:** Area of the tire next to the rim.
- **Sidewall of the tire:** Area between the bead area and the tread.
- **Tread area of the tire:** Area of the perimeter of the tire that contacts the road when mounted on the vehicle.
- **Rim:** The metal support (wheel) for a tire or a tire and tube assembly upon which the tire beads are seated.

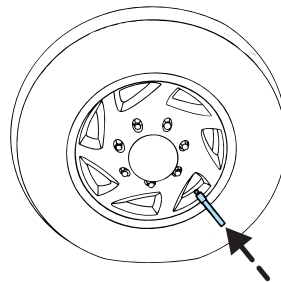
INSPECTING AND INFLATING YOUR TIRES

Safe operation of your vehicle requires that your tires are properly inflated. Remember that a tire can lose up to half of its air pressure without appearing flat.

Tires, Wheels and Loading

Every day before you drive, check your tires. If one looks lower than the others, use a tire gauge to check pressure of all tires and adjust if required.

At least once a month and before long trips, inspect each tire and check the tire pressure with a tire gauge (including spare, if equipped). Inflate all tires to the inflation pressure recommended by Ford Motor Company.



Inspecting your tires

Periodically inspect the tire treads for uneven or excessive wear and remove stones, nails, glass or other objects that may be wedged in the tread grooves. Check for holes or cuts that may permit air leakage from the tire and make necessary repairs.

Also inspect the tire sidewalls for cuts, bruises and other damage. If internal damage to the tire is suspected, have the tire demounted and inspected in case it needs to be repaired or replaced. For your safety, tires that are damaged should not be used because they are more likely to blow out or fail. Tires can be damaged during off-road use, so inspection after off-road use is also recommended.

Inflating your tires



When checking the air pressure in your tires, make sure that you carefully attach the air pressure gauge/air hose to the tire's valve stem directly on top of the valve stem. If you bend the valve stem, it may become damaged and cause an air leak.

Use a tire gauge to check the tire inflation pressure, including the spare (if equipped), at least monthly and before long trips. You are strongly urged to buy a reliable tire pressure gauge, as automatic service station gauges may be inaccurate. Ford recommends the use of a digital or dial type tire pressure gauge rather than a stick type tire pressure gauge.

Use the recommended cold inflation pressure for optimum tire performance and wear. Under-inflation or over-inflation may cause uneven treadwear patterns.

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Under-inflation is the most common cause of tire failures and may result in severe tire cracking, tread separation or "blowout", with unexpected loss of vehicle control and increased risk of injury. Under-inflation increases sidewall flexing and rolling resistance, resulting in heat buildup and internal damage to the tire. It also may result in unnecessary tire stress, irregular wear, loss of vehicle control and accidents. A tire can lose up to half of its air pressure and not appear to be flat!

Always inflate your tires to the Ford recommended inflation pressure even if it is less than the maximum inflation pressure information found on the tire. The Ford recommended tire inflation pressure is found on the tire label or certification label which is located on the B-Pillar or the edge of the driver's door. Failure to follow the tire pressure recommendations can cause uneven treadwear patterns and adversely affect the way your vehicle handles.

Maximum Permissible Inflation Pressure is the tire manufacturer's maximum permissible pressure and/or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the manufacturer's recommended cold inflation pressure which can be found on either the tire label or certification label which is located on the B-Pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the tire label or certification label.

When weather temperature changes occur, tire inflation pressures also change. A 10° F (6° C) temperature drop can cause a corresponding drop of 1 psi (7 kPa) in inflation pressure. Check your tire pressures frequently and adjust them to the proper pressure which can be found on the tire label or certification label.

If you are checking tire pressure when the tire is hot, (i.e. driven more than 1 mile [1.6 km]), never "bleed" or reduce air pressure. The tires are hot from driving and it is normal for pressures to increase above recommended cold pressures. A hot tire at or below recommended cold inflation pressure could be significantly under-inflated.

To check the pressure in your tire(s):

1. Make sure the tires are cool, meaning they are not hot from driving even a mile.

Note: If you have to drive a distance to get air for your tire(s), check and record the tire pressure first and add the appropriate air pressure

Tires, Wheels and Loading

when you get to the pump. It is normal for tires to heat up and the air pressure inside to go up as you drive. Never “bleed” or reduce air pressure when tires are hot.

2. Remove the cap from the valve on one tire, then firmly press the tire gauge onto the valve and measure the pressure.

3. Add enough air to reach the recommended air pressure

Note: If you overfill the tire, release air by pushing on the metal stem in the center of the valve. Then recheck the pressure with your tire gauge.

4. Replace the valve cap.

5. Repeat this procedure for each tire, including the spare.

Note: Some spare tires require higher inflation pressure than the other tires. Check the tire label on the B-pillar or the edge of the driver's door for the recommended spare tire pressure.

6. Visually inspect the tires to make sure there are no nails or other objects embedded that could poke a hole in the tire and cause an air leak.

7. Check the sidewalls to make sure there are no gouges, cuts or bulges.

TIRE REPLACEMENT REQUIREMENTS

Your vehicle is equipped with tires designed to provide a safe ride and handling capability.



Only use replacement tires and wheels that are the same size and type (such as P-metric versus LT-metric or all-season versus all-terrain) as those originally provided by Ford. Use of any tire or wheel not recommended by Ford can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death. Additionally the use of non-recommended tires and wheels could cause steering, suspension, axle or transfer case/power transfer unit failure. If you have questions regarding tire replacement, see an authorized Ford or Lincoln/Mercury dealer.

Make sure all tires and wheels on the vehicle are of the same size, type, tread design, brand, load-carrying capacity and speed rating because it can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

The tire pressure monitoring sensors mounted in the wheels (originally installed on your vehicle) are not designed to be used in after market wheels.

Tires, Wheels and Loading

The installation of replacement tires with steel cord body plies in the tire sidewall may cause malfunction of the Tire Pressure Monitoring System (TPMS), and is not recommended (cord material information is molded on the tire sidewall). Additionally, if your vehicle was originally equipped with run-flat tires, replacing them with tires that are not identical to those originally fitted may cause malfunction of the TPMS, and is not recommended. Run-flat tires should not be used to replace regular tires. Always check your TPMS indicator immediately after replacing one or more tires on your vehicle. If the TPMS indicator is on, your TPMS is malfunctioning. Your replacement tire might be incompatible with your TPMS system, or some component of the TPMS system may be damaged.

You should replace the spare tire when you replace the other road tires due to the aging of the spare tire.

CHANGING THE TIRES

If you get a flat tire while driving:

- do not brake heavily.
- gradually decrease the vehicle's speed.
- hold the steering wheel firmly.
- slowly move to a safe place on the side of the road.

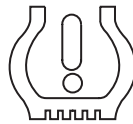


The use of tire sealants may damage your tires. The use of tire sealants may also damage your Tire Pressure Monitoring System (if equipped).



If your vehicle is equipped with a tire pressure monitoring system, refer to *Tire Pressure Monitoring System (if equipped)* later in this chapter for important information. If the tire pressure monitor sensor becomes damaged, it will no longer function.

Your spare tire is not equipped with a Tire Pressure Monitoring System (TPMS) sensor.



Note: If your vehicle is equipped with the tire pressure monitoring system (TPMS), the system indicator light will illuminate when the spare is in use. To restore the full functionality of the monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on the vehicle.

Tires, Wheels and Loading

If your vehicle is equipped with TPMS, have a flat serviced by a dealer or a qualified technician in order to prevent damage to the TPMS sensor. Replace the spare tire with a road tire as soon as possible.

Temporary Emergency Spare Tire Information

Your vehicle may be equipped with a temporary emergency spare tire. This tire may be a T-type/mini-spare tire which will have the words "Temporary Use Only" molded into the tire sidewall or it may be a full size dissimilar spare tire/wheel that is different in brand, size or appearance from the road tire, which will be identified with a "Caution" label on the wheel. Both of these spare tires are considered "temporary". Replace these temporary emergency spare tires on the vehicle with a tire of the same size, speed rating and load carrying capacity as the other road tires as soon as possible.

It is not recommended that the vehicle be operated in 4WD modes with a temporary emergency spare tire. If 4WD operation is necessary, do not operate above speeds of 10 mph (16 km/h) or for distances above 50 miles (80 km).

When driving with the temporary emergency spare tire **do not:**

- Exceed 50 mph (80 km/h)
- Exceed 2000 miles (3200 km)
- Load the vehicle beyond maximum vehicle load rating listed on the Safety Compliance Label
- Tow a trailer
- Use snow chains
- Use more than one temporary emergency spare tire
- Use commercial car washing equipment
- Try to repair the temporary emergency spare tire

Use of a temporary emergency spare tire at any one wheel location can lead to impairment of the following:

- Handling, stability and braking performance
- Comfort and noise
- Ground clearance and parking at curbs
- Winter weather driving capability
- Wet weather driving capability

Tires, Wheels and Loading

Conventional spare tire information

If you have the spare tire that is the same size as your other road tires, you can use the spare as you would any of the other tires. The spare tire will be equivalent to your road tires, although it may not have the same appearance (black-side wall instead of outlined-white letters).

Location of the spare tire and tools

The spare tire and tools for your vehicle are stowed in the following locations:

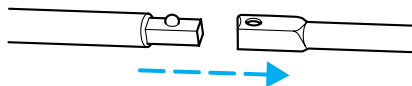
Tool	Location
Spare tire	Under the vehicle, just forward of the rear bumper
Jack, jack handle, wheel nut wrench	Regular Cab: behind the passenger seat, underneath the jack and tools cover on the floor
	SuperCab: stowed in the passenger side rear cab under the plastic tray inside the storage bin or behind the jump seat in a separate tool bag
	Four-door models: stowed behind the front seats, between jump seats and underneath jack and tools cover.
Key, spare tire lock (if equipped)	In the glove box

Removing the spare tire

1. Assemble the jack handle to the lug wrench as shown in the illustrations.

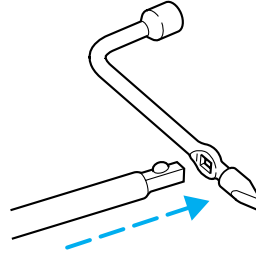
When connecting the jack handle, assemble the following:

- one handle extension and one typical extension. To assemble, slide parts together. To disconnect, depress button and pull apart.

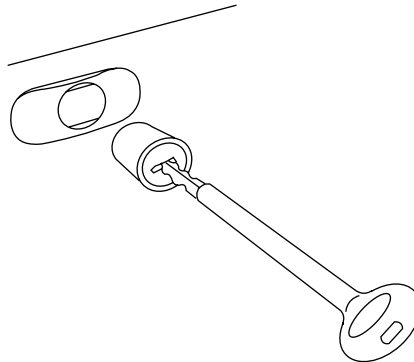


Tires, Wheels and Loading

- one wheel nut wrench. Depress button and slide together.



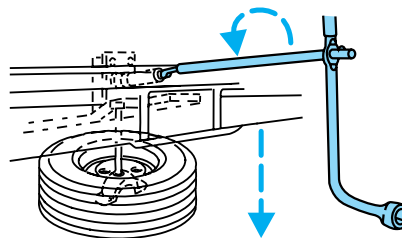
2. If equipped, unlock and remove the spare tire carrier lock from the rear access hole located just above the rear bumper and below the tailgate.



3. Insert the straight end of the jack handle into the rear access hole located just above the rear bumper and below the tailgate.

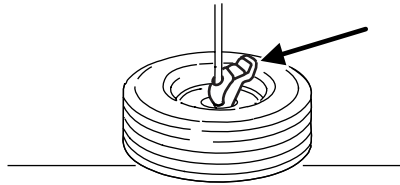
Forward motion will stop and resistance to turning will be felt when properly engaged.

4. Turn the handle counterclockwise until tire is lowered to the ground and the cable is slightly slack.



Tires, Wheels and Loading

5. With the spare tire on the ground, remove the retainer from the spare tire.

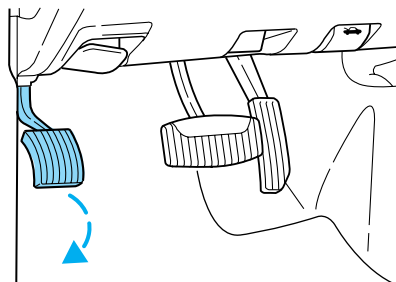


Tire change procedure

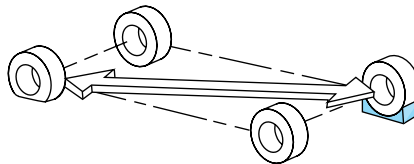
 To help prevent the vehicle from moving when you change a tire, be sure the parking brake is set, then block (in both directions) the wheel that is diagonally opposite (other side and end of the vehicle) to the tire being changed.

 If the vehicle slips off the jack, you or someone else could be seriously injured.

1. Park on a level surface, activate hazard flashers and place gearshift lever in P (Park) (automatic transmission) or 1 (First) (manual transmission).
2. Set the parking brake and turn engine OFF.



3. Block the diagonally opposite wheel.

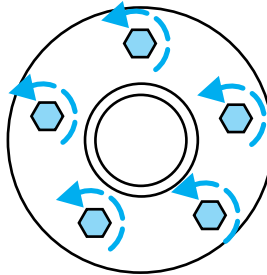


Tires, Wheels and Loading

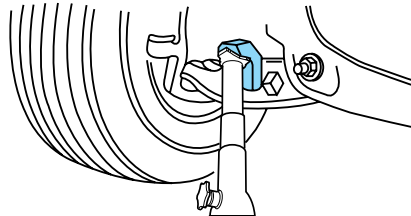
4. Insert tapered end of the lug wrench behind hub caps and twist them off.

5. Loosen each wheel lug nut one-half turn counterclockwise but do not remove them until the wheel is raised off the ground.

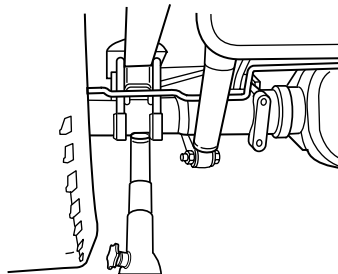
6. Position the jack according to the following guides and turn the jack handle clockwise until the tire is a maximum of 1 inch (25 mm) off the ground.



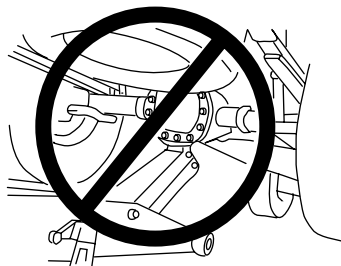
- Front



- Rear



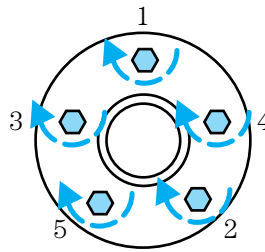
To lessen the risk of personal injury, do not put any part of your body under the vehicle while changing a tire. Do not start the engine when your vehicle is on the jack. The jack is only meant for changing the tire.



Tires, Wheels and Loading

- **Never use the differential as a jacking point.**

7. Remove the wheel lug nuts with the lug wrench.
8. Replace the flat tire with the spare tire, making sure the valve stem is facing outward. Reinstall the lug nuts until the wheel is snug against the hub. Do not fully tighten the lug nuts until the wheel has been lowered.
9. Lower the wheel by turning the jack handle counterclockwise.
10. Remove the jack and fully tighten the lug nuts, in the order shown. Refer to *Wheel lug nut torque specifications* later in this chapter for the proper lug nut torque specification.
11. Stow the flat tire. Refer to *Stowing the flat/spare tire*.
12. Stow the jack and lug wrench. Make sure the jack is fastened so it does not rattle when you drive.
13. Unblock the wheels.



Stowing the flat/spare tire

Note: Failure to follow spare tire stowage instructions may result in failure of cable or loss of spare tire.

1. Lay the tire on the ground with the valve stem facing up.
2. Slide the wheel partially under the vehicle and install the wire and retainer through the center of the wheel.
3. Turn the jack handle clockwise until the tire is raised to its original position underneath the vehicle. The effort to turn the jack handle increases significantly as the tire contacts the frame. The spare tire carrier will ratchet when the tire is in the fully stowed position. The spare tire carrier has a built-in ratchet feature that will not allow you to overtighten. If the spare tire carrier ratchets with very little effort, take the vehicle to your dealer for assistance at your earliest convenience.
4. Check that the tire lies flat against the frame assembly. Push against the tire to make sure it is tightly seated under the vehicle. Loosen and retighten, if necessary. Failure to properly stow the spare tire may result in failure of the winch cable and loss of the spare tire.
5. Repeat this tightness check procedure when servicing the spare tire pressure (every six months, per *Scheduled Maintenance Guide*), or at any time that the spare tire is disturbed through service of other components.

Tires, Wheels and Loading

6. Install the spare tire lock (if equipped) into the access hole above the rear bumper with the spare tire lock key (if equipped) and jack handle.

WHEEL LUG NUT TORQUE SPECIFICATIONS

Retighten the lug nuts to the specified torque at 50–100 miles (80–160 km) after any wheel disturbance (rotation, flat tire, wheel removal, etc.).

Lug nut socket size/Bolt size	Wheel lug nut torque*	
	lb.ft.	N•m
Lug nut socket size: ¾" (19 mm) hex Bolt size: ½ x 20	100	135
* Torque specifications are for nut and bolt threads free of dirt and rust. Use only Ford recommended replacement fasteners.		



When a wheel is installed, always remove any corrosion, dirt and foreign materials present on the mounting surfaces of the wheel and the surface of the front disc brake hub and rotor that contacts the wheel. Installing wheels without correct metal-to-metal contact at the wheel mounting surfaces can cause the wheel nuts to loosen and the wheel to come off while the vehicle is in motion, resulting in loss of control.

Note: If there is corrosion on the area where the wheel contacts the hub, apply a thin film of grease or anti-seize compound on that area.

INFORMATION CONTAINED ON THE TIRE SIDEWALL

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a U.S. DOT Tire Identification Number for safety standard certification and in case of a recall.

Tires, Wheels and Loading

Information on “P” type tires

P215/65R15 95H is an example of a tire size, load index and speed rating. The definitions of these items are listed below. (Note that the tire size, load index and speed rating for your vehicle may be different from this example.)

1. **P:** Indicates a tire, designated by the Tire and Rim Association (T&RA), that may be used for service on cars, SUVs, minivans and light trucks.

Note: If your tire size does not begin with a letter this may mean it is designated by either ETRTO (European Tire and Rim Technical Organization) or JATMA (Japan Tire Manufacturing Association).

2. **215:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

3. **65:** Indicates the aspect ratio which gives the tire's ratio of height to width.

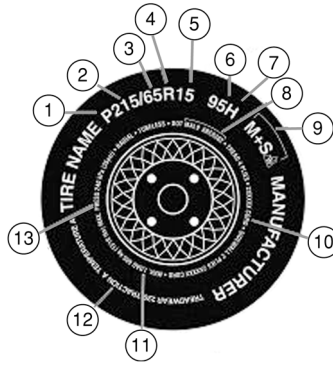
4. **R:** Indicates a “radial” type tire.

5. **15:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

6. **95:** Indicates the tire's load index. It is an index that relates to how much weight a tire can carry. You may find this information in your *Owner's Guide*. If not, contact a local tire dealer.

Note: You may not find this information on all tires because it is not required by federal law.

7. **H:** Indicates the tire's speed rating. The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time under a standard condition of load and inflation pressure. The tires on your vehicle may operate at different conditions for load and inflation pressure. These speed ratings may need to be adjusted for the difference in conditions. The ratings range from 81 mph (130 km/h) to 186 mph (299 km/h). These ratings are listed in the following chart.



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Note: You may not find this information on all tires because it is not required by federal law.

Letter rating	Speed rating - mph (km/h)
M	81 mph (130 km/h)
N	87 mph (140 km/h)
Q	99 mph (159 km/h)
R	106 mph (171 km/h)
S	112 mph (180 km/h)
T	118 mph (190 km/h)
U	124 mph (200 km/h)
H	130 mph (210 km/h)
V	149 mph (240 km/h)
W	168 mph (270 km/h)
Y	186 mph (299 km/h)

Note: For tires with a maximum speed capability over 149 mph (240 km/h), tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph (299 km/h), tire manufacturers always use the letters ZR.

8. U.S. DOT Tire Identification Number (TIN): This begins with the letters "DOT" and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000 the numbers go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

9. M+S or M/S: Mud and Snow, or

AT: All Terrain, or

AS: All Season.

10. Tire Ply Composition and Material Used: Indicates the number of plies or the number of layers of rubber-coated fabric in the tire tread and sidewall. Tire manufacturers also must indicate the ply materials in the tire and the sidewall, which include steel, nylon, polyester, and others.

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11. **Maximum Load:** Indicates the maximum load in kilograms and pounds that can be carried by the tire. Refer to the tire label or the safety certification label, which is located on the B-Pillar or the edge of the driver's door, for the correct tire pressure for your vehicle.

12. **Treadwear, Traction and Temperature 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 (1½) times as well on the government course as a tire graded 100.
- **Traction:** The traction grades, from highest to lowest are AA, A, B, and C. The 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.
- **Temperature:** 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.

13. **Maximum Permissible Inflation Pressure:** Indicates the tire manufacturers' maximum permissible pressure and/or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the manufacturer's recommended cold inflation pressure which can be found on either the tire label or certification label which is located on the B-Pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the vehicle label.

The tire suppliers may have additional markings, notes or warnings such as standard load, radial tubeless, etc.

Tires, Wheels and Loading

Additional information contained on the tire sidewall for “LT” type tires

“LT” type tires have some additional information beyond those of “P” type tires; these differences are described below:

1. **LT:** Indicates a tire, designated by the Tire and Rim Association (T&RA), that is intended for service on light trucks.

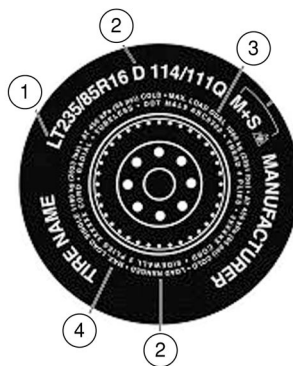
2. Load Range/Load Inflation

Limits: Indicates the tire's load-carrying capabilities and its inflation limits.

3. Maximum Load Dual lb. (kg)

at psi (kPa) cold: Indicates the maximum load and tire pressure when the tire is used as a dual; defined as four tires on the rear axle (a total of six or more tires on the vehicle).

4. **Maximum Load Single lb. (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a single; defined as two tires (total) on the rear axle.



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Information on “T” type tires

“T” type tires have some additional information beyond those of “P” type tires; these differences are described below:

T145/80D16 is an example of a tire size.

Note: The temporary tire size for your vehicle may be different from this example.

1. **T:** Indicates a type of tire, designated by the Tire and Rim Association (T&RA), that is intended for temporary service on cars, SUVs, minivans and light trucks.

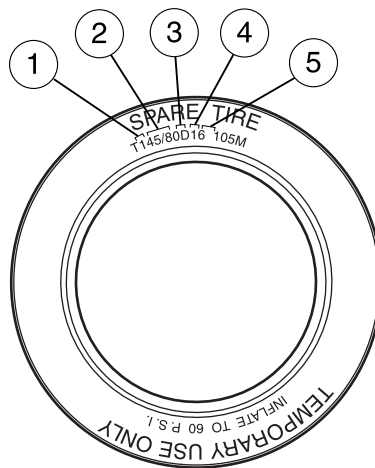
2. **145:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

3. **80:** Indicates the aspect ratio which gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall.

4. **D:** Indicates a “diagonal” type tire.

R: Indicates a “radial” type tire.

5. **16:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.



Location of the tire label

You will find a tire label containing tire inflation pressure by tire size and other important information located on the B-Pillar or the edge of the driver's door.

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TIRE CARE

Improper or inadequate vehicle maintenance can also cause tires to wear abnormally. Here are some of the important maintenance items:

Tire wear

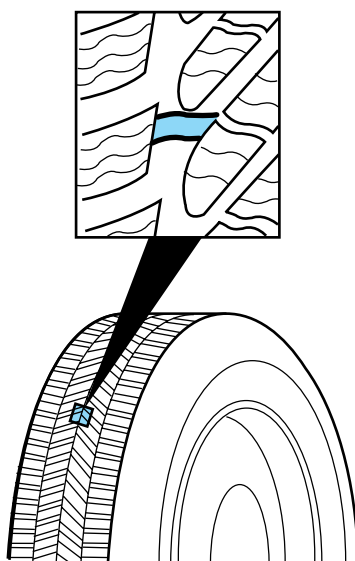
Measure and inspect the tire tread on all your tires periodically. Advanced and unusual tire wear can reduce the ability of tread to grip the road in adverse (wet, snowy, etc.) conditions. Visually check your tires for uneven wear, looking for high and low areas or unusually smooth areas. Also check for signs of tire damage.

When the tread is worn down to 1/16th of an inch (2 mm), tires must be replaced to prevent your vehicle from skidding and hydroplaning. Built-in treadwear indicators, or “wear bars”, which look like narrow strips of smooth rubber across the tread will appear on the tire when the tread is worn down to 1/16th of an inch (2 mm). When the tire tread wears down to the same height as these “wear bars”, the tire is worn out and should be replaced.

Inspect your tires frequently for any of the following conditions and replace them if one or more of the following conditions exist:

- Fabric showing through the tire rubber
- Bulges in the tread or sidewalls
- Cracks or cuts on the sidewalls
- Cracks in the tread groove
- Impact damage resulting from use
- Separation in the tread
- Separation in the sidewall
- Severe abrasion on the sidewall

If your vehicle has a leak in the exhaust system, a road tire or the spare tire may be exposed to hot exhaust temperatures requiring the tire to be replaced.



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Safety practices

Driving habits have a great deal to do with your tire mileage and safety.

- Observe posted speed limits
- Avoid fast starts, stops and turns
- Avoid potholes and objects on the road
- Do not run over curbs or hit the tire against a curb when parking



If your vehicle is stuck in snow, mud, sand, etc., **do not** rapidly spin the tires; spinning the tires can tear the tire and cause an explosion. A tire can explode in as little as three to five seconds.



Never spin the tires in excess of the 35 mph (55 km/h) point indicated on the speedometer.

Highway hazards

No matter how carefully you drive there's always the possibility that you may eventually have a flat tire on the highway. Drive slowly to the closest safe area out of traffic. This may further damage the flat tire, but your safety is more important.

If you feel a sudden vibration or ride disturbance while driving, or you suspect your tire or vehicle has been damaged, immediately reduce your speed. Drive with caution until you can safely pull off the road. Stop and inspect the tires for damage. If a tire is under-inflated or damaged, deflate it, remove wheel and replace it with your spare tire and wheel. If you cannot detect a cause, have the vehicle towed to the nearest repair facility or tire dealer to have the vehicle inspected.

Tire and wheel alignment

A bad jolt from hitting a curb or pothole can cause the front end of your vehicle to become misaligned or cause damage to your tires. If your vehicle seems to pull to one side when you're driving, the wheels may be out of alignment. Have a qualified technician at a Ford or Lincoln/Mercury dealer check the wheel alignment periodically.

Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by a qualified technician at a Ford or Lincoln/Mercury dealer. Front wheel drive (FWD) vehicles and those with an independent rear suspension (if equipped) may require alignment of all four wheels.

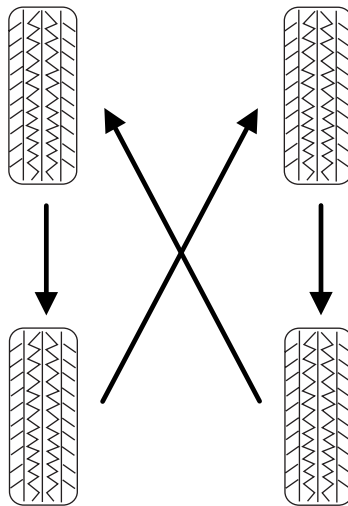
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The tires should also be balanced periodically. An unbalanced tire and wheel assembly may result in irregular tire wear.

Tire rotation

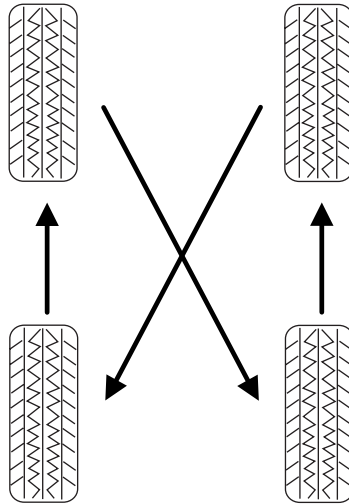
Rotating your tires at the recommended interval (as indicated in the *Scheduled Maintenance Guide* that comes with your vehicle) will help your tires wear more evenly, providing better tire performance and longer tire life. Unless otherwise specified, rotate the tires approximately every 5,000 miles (8,000 km).

- Front Wheel Drive (FWD) vehicles (front tires at top of diagram)



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- Rear Wheel Drive (RWD) vehicles/Four Wheel Drive (4WD)/ All Wheel Drive (AWD) vehicles (front tires at top of diagram)



Sometimes irregular tire wear can be corrected by rotating the tires.

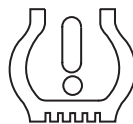
Note: If your tires show uneven wear ask a qualified technician at a Ford or Lincoln/Mercury dealership to check for and correct any wheel misalignment, tire imbalance or mechanical problem involved before tire rotation.

Note: Your vehicle may be equipped with a dissimilar spare tire/wheel. A dissimilar spare tire/wheel is defined as a spare tire and/or wheel that is different in brand, size or appearance from the road tires and wheels. If you have a dissimilar spare tire/wheel it is intended for temporary use only and should not be used in a tire rotation.

Note: After having your tires rotated, inflation pressure must be checked and adjusted to the vehicle requirements.

TIRE PRESSURE MONITORING SYSTEM (TPMS)(IF EQUIPPED)

When the Tire Pressure Monitoring System warning light is lit, one or more of your tires is significantly under-inflated. You should stop and check your tires as soon as possible,



and inflate them to the proper pressure as indicated on the vehicle's tire

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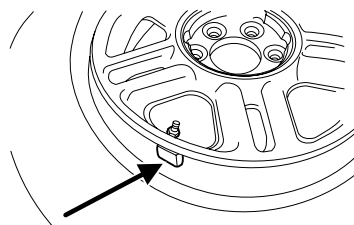
information placard (label). Driving on a significantly under-inflated tire causes the tire to overheat and can eventually lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability. Even if your vehicle is equipped with a Tire Pressure Monitoring System, it is still important that you manually check the inflation pressure of your tires regularly. Each tire, including the spare, should be checked monthly when cold and set to the recommended inflation pressure which can be found on either the tire label or certification label which is located on the B-Pillar or the edge of the driver's door.



The Tire Pressure Monitoring System is NOT a substitute for manually checking tire pressure. The tire pressure should be checked periodically (at least monthly) using a tire gauge, see *Inspecting and inflating your tires* in this chapter. Failure to properly maintain your tire pressure could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.

Changing tires with TPMS

It is recommended that you always have your tires serviced by a dealer or qualified technician. **Each road tire is equipped with a tire pressure sensor mounted on the wheel inside the tire connected to the valve stem. The tire pressure sensor must be unbolted from the wheel prior to tire removal. The sensor can be removed by loosening the nut at the valve stem. Failure to remove the sensor may damage it.** The rubber grommet (washer) between the wheel and the tire pressure sensor needs to be replaced whenever the sensor is removed to minimize air leaks.



The tire pressure should be checked periodically (at least monthly) using an accurate tire gauge, refer to *Inspecting and inflating your tires* in this chapter.

Understanding your Tire Pressure Monitoring System (TPMS)

The Tire Pressure Monitoring System measures pressure in your four road tires and sends the tire pressure readings to your vehicle every minute while you are driving and once an hour when your vehicle is

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parked. The Low Tire Warning Lamp will turn ON if the tire pressure is 25% below the pressure listed on the tire label (approximately 6 to 9 psi below the manufacturer's recommend tire pressure). If the tire pressure increases 2 psi above the "Light ON" threshold, then the TPMS light will turn OFF. Once the light is illuminated, your tires are under inflated and need to be inflated to the manufacturer's recommended tire pressure. Even if the light turns ON and a short time later turns OFF, your tire pressure still needs to be checked.

In short, once the light has turned ON, at least one tire may be under inflated.

When your temporary spare tire is installed

When one of your road tires needs to be replaced with the temporary spare, the TPMS system will continue to identify an issue to remind you that the damaged road wheel/tire needs to be repaired and put back on your vehicle. During this time, the low tire warning light can periodically return or stay on, depending on the state of the damaged road wheel/tire. This will include the message center messages (if equipped).

To restore the full functionality of the Tire Pressure Monitoring System, have the damaged road wheel/tire repaired and remounted on your vehicle. For additional information, refer to *Changing tires with TPMS* in this section.

When you believe your system is not operating properly

The main function of the Tire Pressure Monitoring System is to warn you when your tires need air. It can also warn you in the event the system is no longer capable of functioning as intended. Please refer to the following chart for information concerning your Tire Pressure Monitoring System:

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Low Tire Warning Light	Customer Action Required
Solid Warning Light	1. Check your tire pressure to ensure they are properly inflated, refer to <i>Inspecting and inflating your tires</i> in this chapter. Ford recommends the use of a digital or dial type tire pressure gauge rather than a stick type tire pressure gauge for increased accuracy. 2. After inflating your tires to the manufacturer's recommended air pressure as shown on the Tire Label (located on the driver's door or the B-Pillar), the vehicle must be driven for at least two minutes at 20 mph (32 km/h) to guarantee that the light will turn off. 3. If the light remains on even after these steps have been taken, have the system inspected by your servicing dealership
Flashing Warning Light (flashes for 20 to 30 seconds either at start-up or while driving)	1. Your spare tire is in use. Repair the damaged road wheel and re-mount it on the vehicle to restore system functionality. For a description of how the system functions under these conditions, refer to When You Have a Flat Tire in this section. 2. If your tires are inflated to the manufacturer's recommended tire pressure, and your spare tire is not in use, and a flashing low time warning light is still present, have the system inspected by your servicing dealership.

When inflating your tires

When putting air into your tires (such as at a gas station or in your garage), the Tire Pressure Monitoring System may not respond immediately to the air added to your tires. Here are the details:

- The tire pressure monitor sensors mounted in your wheels updates your vehicle with tire pressure information only once every minute, therefore it may take up to a minute for the light to turn off after you have filled your tires to the recommended tire pressure.

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- If your vehicle has been parked for over 15 minutes, the sensors go into a low power mode to conserve battery life and therefore only transmit about once an hour. If you inflate your tires under these conditions, the light could take up to an hour to turn off after you have filled your tires to the recommended tire pressure.

For these reasons, the low tire warning light is NOT a substitute for using an accurate tire gauge when checking and filling your tires. The best way to turn off the low tire warning light is to fill your tires to the recommended tire pressure and drive your vehicle — the tire pressure sensors in your wheels will update your vehicle with the updated tire pressure when your vehicle reaches a speed of 20 mph (32 km/h) for at least a minute.

How temperature affects your tire pressure

The Tire Pressure Monitoring System (TPMS) monitors tire pressure in each pneumatic tire. The pressure in each tire is dependent upon several factors, one of them being the contained air temperature (temperature of the air inside the tire). As the contained air temperature increases, the tire pressure also increases. While driving in a normal manner, a typical passenger tire inflation pressure may increase approximately 2 to 4 psi (14 to 28 kPa) from a cold start situation. This increase in tire pressure is due to an increase in the contained air temperature. Contained air temperature is dependent upon several factors such as rate of tire rotation, tire deflection, amount of braking, etc. In similar manner, the tire pressure will decrease if the contained air temperature decreases. For example, if the vehicle is stationary over night with the outside temperature significantly lower than the daytime temperature, the tire pressure may decrease approximately 3 psi (20.7 kPa) for a drop of 30° F (16.6° C) in ambient temperature. This lower pressure value may be detected by the TPMS as being significantly lower than the cold pressure indicated on your vehicles tire label, and activate the TPMS warning for low tire pressure. If the low warning light is on, visually check each tire to verify that no tire is flat. If one or more tires are flat, repair as necessary. If all tires appear to be inflated, carefully drive the vehicle to the nearest location where air can be added to the tires. Turn the ignition to the “off” position. Inflate all the tires to the recommended cold pressure.

The Tire Pressure Monitoring System complies with part 15 of the FCC rules and with RS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Tires, Wheels and Loading



The Tire Pressure Monitoring System is NOT a substitute for manually checking tire pressure. The tire pressure should be checked periodically (at least monthly) using a tire gauge, see *Inspecting and inflating your tires* in this chapter. Failure to properly maintain your tire pressure could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.

SNOW TIRES AND CHAINS



Driving too fast for conditions creates the possibility of loss of vehicle control. Driving at very high speeds for extended periods of time may result in damage to vehicle components.



Snow tires must be the same size and grade as the tires you currently have on your vehicle.

The tires on your vehicle have all weather treads to provide traction in rain and snow. However, in some climates, you may need to use snow tires and chains. If you need to use snow tires and chains, it is recommended that steel wheels are used of the same size and specifications as those originally installed.

Follow these guidelines when using snow tires and chains:

- Do not use tire chains on aluminum wheels. Chains may chip the wheels.
- Use only SAE Class S chains.
- Install chains securely, verifying that the chains do not touch any wiring, brake lines or fuel lines.
- Drive cautiously. If you hear the chains rub or bang against your vehicle, stop and re-tighten the chains. If this does not work, remove the chains to prevent damage to your vehicle.
- If possible, avoid fully loading your vehicle.
- Remove the tire chains when they are no longer needed. Do not use tire chains on dry roads.
- The suspension insulation and bumpers will help prevent vehicle damage. Do not remove these components from your vehicle when using snow tires and chains.

Tires, Wheels and Loading

VEHICLE LOADING – WITH AND WITHOUT A TRAILER

This section will guide you in the proper loading of your vehicle and/or trailer, to keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle will provide maximum return of vehicle design performance. Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, with or without a trailer, from the vehicle's Safety Certification Label and Tire Label:

Base Curb Weight – is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo, or optional equipment.

Vehicle Curb Weight – is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.



Cargo Weight – includes all weight added to the Base Curb Weight, including cargo and optional equipment. When towing, trailer tongue load or king pin weight is also part of cargo weight.

GAW (Gross Axle Weight) – is the total weight placed on each axle (front and rear) – including vehicle curb weight and all payload.

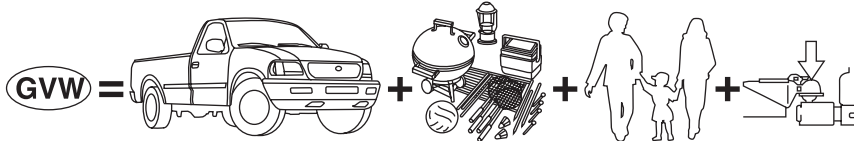
GAWR (Gross Axle Weight Rating) – is the maximum allowable weight that can be carried by a single axle (front or rear). **These numbers are shown on the Safety Compliance Certification Label located on the driver's door or B-Pillar. The total load on each axle must never exceed its GAWR.**



Exceeding the Safety Certification Label axle weight rating limits could result in substandard vehicle handling or performance, engine, transmission and/or structural damage, serious damage to the vehicle, loss of control and personal injury.

Tires, Wheels and Loading

Note: For trailer towing information refer to *Trailer towing* found in this chapter or the *RV and Trailer Towing Guide* provided by your dealership.



GVW (Gross Vehicle Weight) – is the Vehicle Curb Weight + cargo + passengers.

GVWR (Gross Vehicle Weight Rating) – is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). **The GVWR is shown on the Safety Compliance Certification Label located on the driver's door or B-Pillar. The GVW must never exceed the GVWR.**



Exceeding the Safety Certification Label vehicle weight rating limits could result in substandard vehicle handling or performance, engine, transmission and/or structural damage, serious damage to the vehicle, loss of control and personal injury.

Sample Safety Compliance Certification Label (Refer to actual label on your vehicle)					
Front GAWR	GVWR	Rear GAWR			
MFD. BY FORD MOTOR CO. IN U.S.A.					
DATE: 06/95	GVWR: 6250 LB/2834 KG				
FRONT GAWR: 3450 LB	REAR GAWR: 3777 LB				
1564KG	1713KG				
P265/75R15SL	WITH P265/75R15SL	WITH P265/75R15SL			
15X7.5J	TIRES 15X7.5J	TIRES 15X7.5J			
AT 30 PSI COLD	RIMS AT 30 PSI COLD	RIMS AT 30 PSI COLD			
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.					
XXXXXXXXXXXX					
VIN: 1FTETX14H0 SKB 00000					F0018
TYPE: XXXXXXXXXXXXXXX					TC183
EXT PNT: XXXXXX XXXXXX					
WD 155	TYPE-GVW	BODY REM	TRANS E	AXLE HGB	TAPE SPRINGS 1M

Tires, Wheels and Loading

$$\text{GCW} = \text{GVW} + \text{Trailer}$$


GCW (Gross Combined Weight) – is the weight of the loaded vehicle (GVW) plus the weight of the fully loaded trailer.

GCWR (Gross Combined Weight Rating) – is the maximum allowable weight of the vehicle and the loaded trailer – including all cargo and passengers – that the vehicle can handle without risking damage. (Important: The towing vehicle's braking system is rated for operation at GVWR, not at GCWR. Separate functional brakes should be used for safe control of towed vehicles and for trailers where the GCW of the towing vehicle plus the trailer exceed the GVWR of the towing vehicle. **The GCW must never exceed the GCWR.**

Maximum Loaded Trailer Weight – is the highest possible weight of a fully loaded trailer the vehicle can tow. It assumes a vehicle with only mandatory options, no cargo (internal or external), a tongue load of 10–15% (conventional trailer) or king pin weight of 15–25% (fifth wheel trailer), and driver only (150 lb. [68 kg]). **Consult your dealership (or the *RV and Trailer Towing Guide* provided by your dealership) for more detailed information.**

Tongue Load or Fifth Wheel King Pin Weight – refers to the amount of the weight that a trailer pushes down on a trailer hitch.

Examples: For a 5,000 lb. (2,268 kg) conventional trailer, multiply 5,000 by 0.10 and 0.15 to obtain a proper tongue load range of 500 to 750 lb. (227 to 340 kg). For an 11,500 lb. (5,216 kg) fifth wheel trailer, multiply by 0.15 and 0.25 to obtain a proper king pin load range of 1,725 to 2,875 lb. (782 to 1,304 kg)



Do not exceed the GVWR or the GAWR specified on the certification label.



Do not use replacement tires with lower load carrying capacities than the originals because they may lower the vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the originals do not increase the GVWR and GAWR limitations.

Tires, Wheels and Loading



Exceeding any vehicle weight rating limitation could result in serious damage to the vehicle and/or personal injury.

Steps for determining the correct load limit:

1. Locate the statement “The combined weight of occupants and cargo should never exceed XXX pounds” 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 kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the “XXX” amount equals 1,400 lb. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lb. $(1400 - 750 (5 \times 150) = 650 \text{ lb.})$.
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.

The following gives you a few more examples on how to calculate the available amount of cargo and luggage load capacity:

- Another example for your vehicle with 1400 pounds of cargo and luggage capacity. You decide to go golfing. You and your friends average 220 pounds each and the golf bags weigh approximately 30 pounds each. Is there enough load capacity to carry you, 4 of your friends and all the golf bags? The calculation would be: $1400 - (5 \times 220) - (5 \times 30) = 1400 - 1100 - 150 = 150$ pounds; yes, you have enough load capacity in your vehicle to transport 4 of your friends and golf bags.
- A final example for your vehicle with 1400 pounds of cargo and luggage capacity. You and one of your friends decide to pick up cement from the local home improvement store to finish that patio you have been planning for the past 2 years. Measuring the inside of the vehicle with the rear seat folded down, you have room for 12-100 pound bags of cement. Do you have enough load capacity to transport the cement to your home? If you and your friend each weighed 220

Tires, Wheels and Loading

pounds, the calculation would be: $1400 - (2 \times 220) - (12 \times 100) = 1400 - 440 - 1200 = -40$ pounds; no, you do not have enough cargo capacity to carry that much weight. You will need to reduce the load weight by at least 240 pounds. If you remove 3-100 pound cement bags, then the load calculation would be:

$1400 - (2 \times 220) - (9 \times 100) = 1400 - 440 - 900 = 60$ pounds; now you have the load capacity to transport the cement and your friend home.

The above calculations also assume that the loads are positioned in your vehicle in a manner that does not overload the Front or the Rear Gross Axle Weight Rating specified for your vehicle on the Certification label found on the driver's door.

Special loading instructions for owners of pickup trucks and utility-type vehicles



For important information regarding safe operation of this type of vehicle, see the **Preparing to drive your vehicle** section in this chapter.



Loaded vehicles may handle differently than unloaded vehicles. Extra precautions, such as slower speeds and increased stopping distance, should be taken when driving a heavily loaded vehicle.

Your vehicle can haul more cargo and people than most passenger cars. Depending upon the type and placement of the load, hauling cargo and people may raise the center of gravity of the vehicle.

TRAILER TOWING

Your vehicle may tow a class I, II or III trailer provided the maximum trailer weight is less than or equal to the maximum trailer weight listed for your engine and rear axle ratio on the following charts.

Your vehicle's load capacity is designated by weight, not by volume, so you cannot necessarily use all available space when loading a vehicle.

Towing a trailer places an additional load on your vehicle's engine, transmission, axle, brakes, tires and suspension. Inspect these components carefully after any towing operation.

Tires, Wheels and Loading

4x2 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
Regular Cab w/6' box				
2.3L	All	4800 (2177)	1600 (726)	Equal to frontal area of vehicle
3.0L*	All	6000 (2722)	2640 (1197)	50 (4.64)
3.0L* Edge	All	6000 (2722)	2500 (1134)	50 (4.64)
Regular Cab w/7' box				
2.3L	All	4800 (2177)	1520 (689)	Equal to frontal area of vehicle
3.0L*	All	6000 (2722)	2580 (1170)	50 (4.64)
SuperCab				
2.3L	All	4800 (2177)	1420 (644)	Equal to frontal area of vehicle
3.0L*	All	6000 (2722)	2460 (1116)	50 (4.64)
3.0L* Edge	All	6000 (2722)	2360 (1070)	50 (4.64)
4.0L	All	7000 (3175)	3400 (1542)	50 (4.64)
4.0L Edge	All	7000 (3175)	3280 (1488)	50 (4.64)
For high altitude operation, reduce GCW by 2% per 1,000 ft. (300 meters) elevation.				
*When towing on roads with steep grades or moderate but long sustained grades (5 miles [8 km] or more), or when ambient temperatures exceed 100°F (37°C), vehicle speed should not exceed 45 mph (72 km/h) in both cases.				

Tires, Wheels and Loading

4x2 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
For definition of terms used in this table see <i>Vehicle Loading</i> earlier in this chapter.				
To determine maximum trailer weight designed for your particular vehicle, see <i>Calculating the load your vehicle can carry/tow</i> earlier in this chapter.				
Maximum trailer weight is shown. The combined weight of the completed towing vehicle (including hitch, passengers and cargo) and the loaded trailer must not exceed the Gross Combined Weight Rating (GCWR).				
The Ranger is capable of pulling the maximum trailer weight(s) as specified above. Certain states require electric trailer brakes for trailers over a specified weight. The Ranger vehicle electrical system is not equipped to accommodate electric trailer brakes.				

4x4 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
Regular Cab w/6' box				
3.0L*	All	6000 (2722)	2340 (1061)	50 (4.64)
4.0L	All	7000 (3175)	3280 (1488)	50 (4.64)
Regular Cab w/7' box				
3.0L*	All	6000 (2722)	2280 (1034)	50 (4.64)
4.0L	All	7000 (3175)	3220 (1461)	50 (4.64)

Tires, Wheels and Loading

4x4 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
SuperCab				
4.0L (without FX4 package)	All	7000 (3175)	3100 (1406)	50 (4.64)
4.0L (with FX4 package)	All	7000 (3175)	2760 (1252)	50 (4.64)
For high altitude operation, reduce GCW by 2% per 1,000 ft. (300 meters) of elevation.				
*When towing on roads with steep grades or moderate but long sustained grades (5 miles [8 km] or more), or when ambient temperatures exceed 100°F (37°C), vehicle speed should not exceed 45 mph (72 km/h) in both cases.				
For definition of terms used in this table, see <i>Vehicle loading</i> earlier in this chapter.				
To determine maximum trailer weight designed for your vehicle, see <i>Calculating the load your vehicle can carry/tow</i> earlier in this chapter.				
Maximum trailer weight is shown. The combined weight of the completed towing vehicle (including hitch, passengers and cargo) and the loaded trailer must not exceed the Gross Combined Weight Rating (GCWR).				
The Ranger is capable of pulling the maximum trailer weight(s) as specified above. Certain states require electric trailer brakes for trailers over a specified weight. The Ranger vehicle electrical system is not equipped to accommodate electric trailer brakes.				

Tires, Wheels and Loading

4x2 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
Regular Cab w/6' box				
2.3L	All	5500 (2495)	2260 (1025)	Equal to frontal area of vehicle
3.0L*	All	6000 (2722)	2600 (1179)	50 (4.64)
3.0L* Edge	All	6000 (2722)	2460 (1116)	50 (4.64)
Regular Cab w/7' box				
2.3L	All	5500 (2495)	2200 (998)	Equal to frontal area of vehicle
3.0L*	All	6000 (2722)	2540 (1152)	50 (4.64)
4.0L	All	9500 (4309)	5980 (2712)	50 (4.64)
SuperCab				
3.0L*	All	6000 (2722)	2420 (1098)	50 (4.64)
3.0L* Edge	All	6000 (2722)	2300 (1043)	50 (4.64)
4.0L	All	9500 (4309)	5860 (2658)	50 (4.64)
4.0L Edge	All	9500 (4309)	5740 (2603)	50 (4.64)
For high altitude operation, reduce GCW by 2% per 1,000 ft. (300 meters) elevation.				
*When towing on roads with steep grades or moderate but long sustained grades (5 miles [8 km] or more), or when ambient temperatures exceed 100°F (37°C), vehicle speed should not exceed 45 mph (72 km/h) in both cases.				
For definition of terms used in this table see <i>Vehicle Loading</i> earlier in this chapter.				

Tires, Wheels and Loading

4x2 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
To determine maximum trailer weight designed for your particular vehicle, see <i>Calculating the load your vehicle can carry/tow</i> earlier in this chapter.				
Maximum trailer weight is shown. The combined weight of the completed towing vehicle (including hitch, passengers and cargo) and the loaded trailer must not exceed the Gross Combined Weight Rating (GCWR).				
The Ranger is capable of pulling the maximum trailer weight(s) as specified above. Certain states require electric trailer brakes for trailers over a specified weight. The Ranger vehicle electrical system is not equipped to accommodate electric trailer brakes.				

4x4 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
Regular Cab w/6' box				
3.0L*	All	6000 (2722)	2300 (1043)	50 (4.64)
4.0L	All	9500 (4309)	5740 (2604)	50 (4.64)
Regular Cab w/7' box				
3.0L*	All	6000 (2722)	2240 (1016)	50 (4.64)
4.0L	All	9500 (4309)	5660 (2567)	50 (4.64)

Tires, Wheels and Loading

4x4 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - lb. (kg)	Maximum trailer weight - lb. (kg)	Maximum frontal area of trailer - ft ² (m ²)
SuperCab				
4.0L (without FX4 package)	All	9500 (4309)	5580 (2531)	50 (4.64)
4.0L (with FX4 package)	All	9500 (4309)	5220 (2368)	50 (4.64)
For high altitude operation, reduce GCW by 2% per 1,000 ft. (300 meters) of elevation.				
*When towing on roads with steep grades or moderate but long sustained grades (5 miles [8 km] or more), or when ambient temperatures exceed 100°F (37°C), vehicle speed should not exceed 45 mph (72 km/h) in both cases.				
For definition of terms used in this table, see <i>Vehicle loading</i> earlier in this chapter.				
To determine maximum trailer weight designed for your vehicle, see <i>Calculating the load your vehicle can carry/tow</i> earlier in this chapter.				
Maximum trailer weight is shown. The combined weight of the completed towing vehicle (including hitch, passengers and cargo) and the loaded trailer must not exceed the Gross Combined Weight Rating (GCWR).				
The Ranger is capable of pulling the maximum trailer weight(s) as specified above. Certain states require electric trailer brakes for trailers over a specified weight. The Ranger vehicle electrical system is not equipped to accommodate electric trailer brakes.				

Tires, Wheels and Loading



Do not exceed the GVWR or the GAWR specified on the certification label.



Towing trailers beyond the maximum recommended gross trailer weight exceeds the limit of the vehicle and could result in engine damage, transmission damage, structural damage, loss of vehicle control, vehicle rollover and personal injury.

Preparing to tow

Use the proper equipment for towing a trailer and make sure it is properly attached to your vehicle. See your dealer or a reliable trailer dealer if you require assistance.

Hitches

For towing trailers up to 2,000 lb. (907 kg), use a weight carrying hitch and ball which uniformly distributes the trailer tongue loads through the underbody structure. Use a frame-mounted weight distributing hitch for trailers over 2,000 lb. (907 kg).

Do not install a single or multi-clamp type bumper hitch, or a hitch which attaches to the axle. Underbody mounted hitches are acceptable if they are installed properly. Follow the towing instructions of a reputable rental agency.

Whenever a trailer hitch and hardware are removed, make sure all mounting holes in the underbody are properly sealed to prevent noxious gases or water from entering.

Safety chains

Always connect the trailer's safety chains to the frame or hook retainers of the vehicle hitch. To connect the trailer's safety chains, cross the chains under the trailer tongue and allow slack for turning corners.

If you use a rental trailer, follow the instructions that the rental agency gives to you.

Do not attach safety chains to the bumper.

Trailer brakes

Electric brakes and manual, automatic or surge-type trailer brakes are safe if installed properly and adjusted to the manufacturer's specifications. The trailer brakes must meet local and Federal regulations.

Tires, Wheels and Loading



Do not connect a trailer's hydraulic brake system directly to your vehicle's brake system. Your vehicle may not have enough braking power and your chances of having a collision greatly increase.

The braking system of the tow vehicle is rated for operation at the GVWR not GCWR.

Trailer lamps

Trailer lamps are required on most towed vehicles. Make sure all running lights, brake lights, turn signals and hazard lights are working. See your dealer or trailer rental agency for proper instructions and equipment for hooking up trailer lamps.

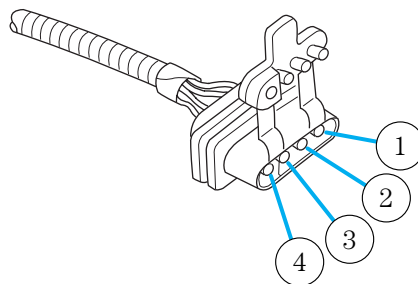
Using a step bumper (if equipped)

The optional step bumper is equipped with an integral hitch and requires only a ball with a 3/4 inch (19 mm) shank diameter. The bumper has a 2,000 lb. (907 kg) trailer weight and 200 lb. (91 kg) tongue weight capability.

The rated capacities (as shown in this guide) for trailer towing with the factory bumper are only valid when the trailer hitch ball is installed directly into the ball hole in the bumper. Addition of bracketry to either lower the ball hitch position or extend the ball hitch rearward will significantly increase the loads on the bumper and its attachments. This can result in the failure of the bumper or the bumper attachments. Use of any type of hitch extensions should be considered abuse.

Trailer tow connector

The trailer tow connector is located under the rear bumper, on the driver's side of the vehicle.



Tires, Wheels and Loading

Refer to the following chart for information regarding the factory-equipped trailer tow connector:

Trailer tow connector		
Color	Function	Comment
1. Dark Green	Trailer right-hand turn signal	Circuit activated when brake pedal is depressed or when ignition is on and right-hand turn signal is applied.
2. Yellow	Trailer left-hand turn signal	Circuit activated when brake pedal is depressed or when ignition is on and left-hand turn signal is applied.
3. Tan/White	Tail lamp	Relay controlled circuit activated when the park lamps/headlamps are on.
4. White	Ground	Matching vehicle circuit returns to battery's negative ground.

Driving while you tow

When towing a trailer:

- Turn off the speed control. The speed control may shut off automatically when you are towing on long, steep grades.
- Consult your local motor vehicle speed regulations for towing a trailer.
- To eliminate excessive shifting, use a lower gear. This will also assist in transmission cooling. (For additional information, refer to the *Driving with a 5-speed automatic transmission* section in the *Driving* chapter.)
- Under extreme conditions with large frontal trailers, high outside temperatures and highway speeds, the coolant gauge may indicate higher than normal coolant temperatures. If this occurs, reduce speed until the coolant temperature returns to the normal range. Refer to *Engine coolant temperature gauge* in the *Instrument Cluster* chapter.
- Anticipate stops and brake gradually.
- Do not exceed the GCWR rating or transmission damage may occur.

Tires, Wheels and Loading

Servicing after towing

If you tow a trailer for long distances, your vehicle will require more frequent service intervals. Refer to your *Scheduled Maintenance Guide* for more information.

Trailer towing tips

- Practice turning, stopping and backing up before starting on a trip to get the feel of the vehicle trailer combination. When turning, make wider turns so the trailer wheels will clear curbs and other obstacles.
- Allow more distance for stopping with a trailer attached.
- The trailer tongue weight should be 10–15% of the loaded trailer weight.
- After you have traveled 50 miles (80 km), thoroughly check your hitch, electrical connections and trailer wheel lug nuts.
- To aid in engine/transmission cooling and A/C efficiency during hot weather while stopped in traffic, place the gearshift lever in P (Park) (automatic transmission) or N (Neutral) (manual transmissions).
- Vehicles with trailers should not be parked on a grade. If you must park on a grade, place wheel chocks under the trailer's wheels.

Launching or retrieving a boat

Disconnect the wiring to the trailer before backing the trailer into the water. Reconnect the wiring to the trailer after the trailer is removed from the water.

When backing down a ramp during boat launching or retrieval:

- do not allow the static water level to rise above the bottom edge of the rear bumper.
- do not allow waves to break higher than 6 inches (15 cm) above the bottom edge of the rear bumper.

Exceeding these limits may allow water to enter vehicle components:

- causing internal damage to the components.
- affecting driveability, emissions and reliability.

Replace the rear axle lubricant any time the axle has been submerged in water. Rear axle lubricant quantities are not to be checked or changed unless a leak is suspected or repair required.

RECREATIONAL TOWING

Follow these guidelines if you have a need for recreational towing. An example of recreational towing would be towing your vehicle behind a motorhome. These guidelines are designed to ensure that your transmission is not damaged.

Tires, Wheels and Loading

Vehicles equipped with a manual transmission:

Note: 4x2 and 4x4 vehicles with a manual transmission follow these guidelines for recreational towing:

Before you have your vehicle towed:

- Release the parking brake.
- Move the gearshift to the neutral position.
- Turn the key in the ignition to the OFF/UNLOCKED position.
- The maximum recommended speed is 55 mph (88 km/h).
- The maximum recommended distance is unlimited.
- Put 4x4 switch in 2WD mode (4x4 only)
- The vehicle must be towed in the forward position to ensure no damage is done to the internal transmission components.

In addition, it is recommended that you follow the instructions provided by the aftermarket manufacturer of the towing apparatus if one has been installed.

Vehicles equipped with an automatic transmission

4x2 and 4x4 vehicles with an automatic transmission follow these guidelines for recreational towing:

- Release the parking brake.
- Turn the key in the ignition to the OFF/UNLOCKED position.
- Place the transmission in N (Neutral).
- Do not exceed a distance of 50 miles (80 km).
- Do not exceed 35 mph (56 km/h) vehicle speed.
- Put 4x4 switch in 2WD mode (4x4 only)
- The vehicle must be towed in the forward position to ensure no damage is done to the internal transfer case components.

If a distance of 50 miles (80 km) or a speed of 35 mph (56 km/h) must be exceeded, you must disconnect the front (4x4 only) and rear driveshafts. Ford recommends the driveshafts be removed/installed only by a qualified technician. See your local dealer for driveshaft removal/installation.

Improper removal/installation of the driveshaft can cause transmission fluid or transfer case fluid loss, damage to the driveshaft and internal transmission and transfer case components.

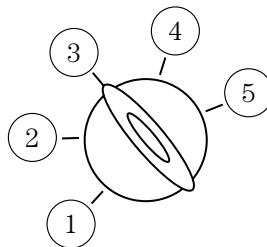
Driving

STARTING

Positions of the ignition

1. ACCESSORY, allows the electrical accessories such as the radio to operate while the engine is not running.

2. LOCK, locks the steering wheel, automatic transmission gearshift lever and allows key removal. For vehicles equipped with a manual transmission, you must depress the ignition release lever to release the key.



3. OFF, shuts off the engine and all accessories without locking the steering wheel. This position also allows the automatic transmission shift lever to be moved from the P (Park) position without the brake pedal being depressed.



When the key is in the ignition and in the OFF position, the automatic transmission shift lever can be moved from the P (Park) position without the brake pedal depressed. To avoid unwanted vehicle movement, always set the parking brake.

4. ON, all electrical circuits operational. Warning lights illuminated. Key position when driving.

5. START, cranks the engine. Release the key as soon as the engine starts.

Preparing to start your vehicle

Engine starting is controlled by the powertrain control system. This system meets all Canadian Interference-Causing Equipment standard requirements regulating the impulse electrical field strength of radio noise.

When starting a fuel-injected engine, don't press the accelerator before or during starting. Only use the accelerator when you have difficulty starting the engine. For more information on starting the vehicle, refer to *Starting the engine* in this chapter.

Driving



Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.



Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.



Do not start your vehicle in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine. See *Guarding against exhaust fumes* in this chapter for more instructions.



If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

Important safety precautions

When the engine starts, the idle RPM runs faster to warm the engine. If the engine idle speed does not slow down automatically, have the vehicle checked.

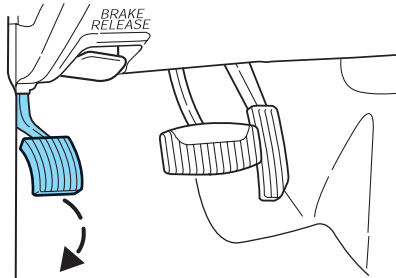
Before starting the vehicle:

1. Make sure all occupants buckle their safety belts. For more information on safety belts and their proper usage, refer to the *Seating and Safety Restraints* chapter.
2. Make sure the headlamps and electrical accessories are off.

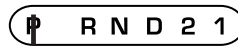
Driving

If starting a vehicle with an automatic transmission:

- Make sure the parking brake is set.

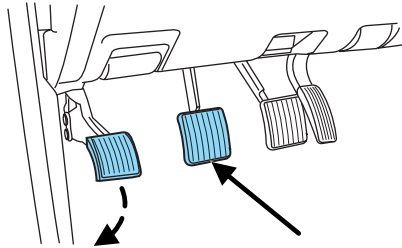


- Make sure the gearshift is in P (Park).



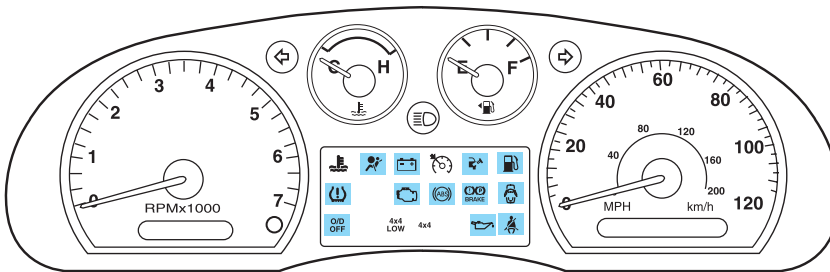
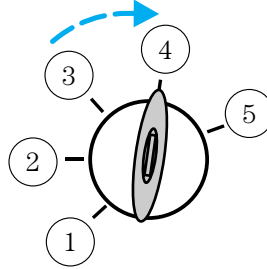
If starting a vehicle with a manual transmission:

1. Make sure the parking brake is set.
2. Push the clutch pedal to the floor.



Driving

- Turn the key to 4 (ON) without turning the key to 5 (START).

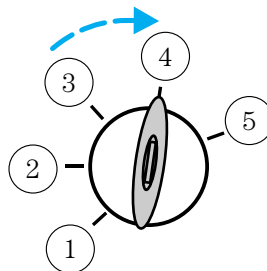


Make sure the corresponding lights illuminate or illuminate briefly. If a light fails to illuminate, have the vehicle serviced.

- If the driver's safety belt is fastened, the  light may not illuminate.

Starting the engine

1. Turn the key to 4 (ON) without turning the key to 5 (START). If there is difficulty in turning the key, rotate the steering wheel until the key turns freely.
2. Turn the key to 5 (START), then release the key as soon as the engine starts. Excessive cranking could damage the starter.



Note: If the engine does not start within five seconds on the first try, turn the key to OFF, wait 10 seconds and try again. If the engine still fails to start, press the accelerator to the floor and try again; this will allow the engine to crank with the fuel shut off in case the engine is flooded with fuel.

Driving

Using the engine block heater (if equipped)

An engine block heater warms the engine coolant which aids in starting and heater/defroster performance. Use of an engine block heater is strongly recommended if you live in a region where temperatures reach -10°F (-23°C) or below. For best results, plug the heater in at least three hours before starting the vehicle. The heater can be plugged in the night before starting the vehicle.



To reduce the risk of electrical shock, do not use your heater with ungrounded electrical systems or two-pronged (cheater) adapters.

Guarding against exhaust fumes

Carbon monoxide is present in exhaust fumes. Take precautions to avoid its dangerous effects.



If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

Important ventilating information

If the engine is idling while the vehicle is stopped for a long period of time, open the windows at least one inch (2.5 cm) or adjust the heating or air conditioning to bring in fresh air.

BRAKES

Occasional brake noise is normal. If a metal-to-metal, continuous grinding or continuous squeal sound is present, the brake linings may be worn-out and should be inspected by a qualified service technician. If the vehicle has continuous vibration or shudder in the steering wheel while braking, the vehicle should be inspected by a qualified service technician.

Refer to *Brake system warning light* in the *Instrument Cluster* chapter for information on the brake system warning light.



Four-wheel anti-lock brake system (ABS)

Your vehicle is equipped with an Anti-lock Braking System (ABS). This system helps you maintain steering control during emergency stops by

Driving

keeping the brakes from locking. Noise from the ABS pump motor and brake pedal pulsation may be observed during ABS braking and the brake pedal may suddenly travel a little farther as soon as ABS braking is done and normal brake operation resumes. These are normal characteristics of the ABS and should be no reason for concern.

Using ABS

When hard braking is required, apply continuous force on the brake pedal; do not pump the brake pedal since this will reduce the effectiveness of the ABS and will increase your vehicle's stopping distance. The ABS will be activated immediately, allowing you to retain full steering control during hard braking and on slippery surfaces. However, the ABS does not decrease stopping distance.

ABS warning lamp

The ABS lamp in the instrument cluster momentarily illuminates when the ignition is turned on. If the light does not illuminate during start up, remains on or flashes, the ABS may be disabled and may need to be serviced.

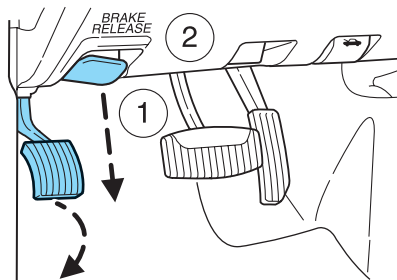


Even when the ABS is disabled, normal braking is still effective. (If your BRAKE warning lamp illuminates with the parking brake released, have your brake system serviced immediately.)



Parking brake

To set the parking brake (1), press the parking brake pedal down until the pedal stops.



Driving

The BRAKE warning lamp will illuminate and will remain illuminated until the parking brake is released.



To release, pull the lever (2).



Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park) (automatic transmission) or in 1 (First) (manual transmission).

STEERING

To prevent damage to the power steering system:

- Never hold the steering wheel at its furthest turning points (until it stops) for more than a few seconds when the engine is running.
- Do not operate the vehicle with a low power steering pump fluid level (below the MIN mark on the reservoir).

If the power steering system breaks down (or if the engine is turned off), you can steer the vehicle manually, but it takes more effort.

If the steering wanders or pulls, check for:

- an improperly inflated tire
- uneven tire wear
- loose or worn suspension components
- loose or worn steering components
- improper steering alignment

A high crown in the road or high crosswinds may also make the steering seem to wander/pull.

TRACTION-LOK AXLE (IF EQUIPPED)

This axle provides added traction on slippery surfaces, particularly when one wheel is on a poor traction surface. Under normal conditions, the Traction-Lok axle functions like a standard rear axle. The axle may exhibit a slight noise or vibration in tight turns with low vehicle speed. This is normal behavior and indicates the axle is working.

Driving

PREPARING TO DRIVE YOUR VEHICLE



Utility vehicles have a significantly higher rollover rate than other types of vehicles.



In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a safety belt.

Your vehicle has larger tires and increased ground clearance, giving the vehicle a higher center of gravity than a passenger car.



Vehicles with a higher center of gravity such as utility and four-wheel drive vehicles handle differently than vehicles with a lower center of gravity. Utility and four-wheel drive vehicles are **not** designed for cornering at speeds as high as passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions. Avoid sharp turns, excessive speed and abrupt maneuvers in these vehicles. Failure to drive cautiously could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.



Loaded vehicles, with a higher center of gravity, may handle differently than unloaded vehicles. Extra precautions such as slower speeds and increased stopping distance should be taken when driving a heavily loaded vehicle.

AUTOMATIC TRANSMISSION OPERATION (IF EQUIPPED)

Brake-shift interlock

This vehicle is equipped with a brake-shift interlock feature that prevents the gearshift lever from being moved from P (Park) when the ignition is in the ON position unless the brake pedal is depressed.

If you cannot move the gearshift lever out of P (Park) with ignition in the ON position and the brake pedal depressed:

1. Apply the parking brake, turn ignition key to LOCK, then remove the key.
2. Insert the key and turn it to OFF. **Apply the brake pedal and shift to N (Neutral).**

Driving

 When the key is in the ignition and in the OFF position, the automatic transmission shift lever can be moved from the P (Park) position without the brake pedal depressed. To avoid unwanted vehicle movement, always set the parking brake.

3. Start the vehicle.

If it is necessary to use the above procedure to move the gearshift lever, it is possible that a fuse has blown or the vehicle's brakelamps are not operating properly. Refer to *Fuses and relays* in the *Roadside Emergencies* chapter.

 Do not drive your vehicle until you verify that the brakelamps are working.

 Always set the parking brake fully and make sure the gearshift is latched in P (Park). Turn the ignition to the LOCK position and remove the key whenever you leave your vehicle.

 If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. See your dealer or a qualified service technician.

Driving with a 5-speed automatic transmission (if equipped)

P R N D 2 1

This vehicle is equipped with an adaptive Transmission Shift Strategy. Adaptive Shift Strategy offers the optimal transmission operation and shift quality. When the vehicle's battery has been disconnected for any type of service or repair, the transmission will need to relearn the normal shift strategy parameters, much like having to reset your radio stations when your vehicle battery has been disconnected. The Adaptive Transmission Strategy allows the transmission to relearn these operating parameters. This learning process could take several transmission upshifts and downshifts; during this learning process, slightly firmer shifts may occur. After this learning process, normal shift feel and shift scheduling will resume.

P (Park)

This position locks the transmission and prevents the rear wheels from turning.

To put your vehicle in gear:

- Start the engine
- Depress the brake pedal
- Move the gearshift lever into the desired gear

To put your vehicle in P (Park):

- Come to a complete stop
- Move the gearshift lever and securely latch it in P (Park)



Always set the parking brake fully and make sure the gearshift is latched in P (Park). Turn the ignition to the LOCK position and remove the key whenever you leave your vehicle.

R (Reverse)

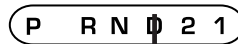
With the gearshift lever in R (Reverse), the vehicle will move backward. Always come to a complete stop before shifting into and out of R (Reverse).

N (Neutral)

With the gearshift lever in N (Neutral), the vehicle can be started and is free to roll. Hold the brake pedal down while in this position.

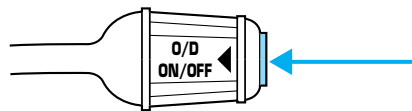
D (Drive) with Overdrive

The normal driving position for the best fuel economy. Transmission operates in gears one through five.



D (Drive) without Overdrive

D (Drive) with Overdrive can be deactivated by pressing the transmission control switch on the end of the gearshift lever.



- This position allows for all forward gears except overdrive.

Driving

- O/D OFF lamp is illuminated.

**O/D
OFF**

- Provides engine braking.
- Use when driving conditions cause excessive shifting from O/D to other gears. Examples: city traffic, hilly terrain, heavy loads, trailer towing and when engine braking is required.
- To return to O/D (overdrive mode), press the transmission control switch. The O/D OFF lamp will not be illuminated.
- O/D (Overdrive) is automatically returned each time the key is turned off.

2 (Second)

Use 2 (Second) to start-up on slippery roads or to provide additional engine braking on downgrades.

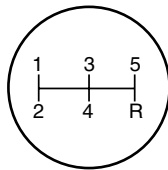
1 (First)

- Provides maximum engine braking.
- Allows upshifts by moving gearshift lever.
- Will not downshift into 1 (First) at high speeds; allows for 1 (First) when vehicle reaches slower speeds.

Forced downshifts

- Allowed in D (Drive) with Overdrive or D (Drive) without Overdrive.
- Depress the accelerator to the floor.
- Allows transmission to select an appropriate gear.

MANUAL TRANSMISSION OPERATION (IF EQUIPPED)



Using the clutch

The manual transmission has a starter interlock that prevents cranking the engine unless the clutch pedal is fully depressed.

Driving

To start the vehicle:

1. Make sure the parking brake is fully set.
2. Press the clutch pedal to the floor, then put the gearshift lever in the neutral position.
3. Start the engine, then press the brake pedal and release the parking brake.
4. Move the gearshift lever to 1st gear, then slowly release the clutch pedal while slowly pressing on the accelerator.

During each shift, the clutch pedal must be fully depressed to the floor. Failure to fully depress the clutch pedal to the floor may cause increased shift efforts, prematurely wear transmission components or damage the transmission. Make sure the floor mat is properly positioned so it doesn't interfere with the full extension of the clutch pedal.

Do not drive with your foot resting on the clutch pedal or use the clutch pedal to hold your vehicle at a standstill while waiting on a hill. These actions will reduce the life of the clutch.

Recommended shift speeds

Downshift according to the following charts for your specific engine/drivetrain combination:

Upshifts when accelerating (for best fuel economy)		
Shift from:	Transfer case position (if equipped)	
	2H or 4H	4L
1 - 2	10 mph (14 km/h)	4 mph (5 km/h)
2 - 3	22 mph (32 km/h)	9 mph (11 km/h)
3 - 4	33 mph (50 km/h)	13 mph (19 km/h)
4 - 5 (Overdrive)	41 mph (71 km/h)	17 mph (27 km/h)
Upshifts when cruising (recommended for best fuel economy)		
Shift from:	Transfer case position (if equipped)	
	2H or 4H	4L
1 - 2	10 mph (16 km/h)	4 mph (6 km/h)
2 - 3	19 mph (26 km/h)	8 mph (10 km/h)
3 - 4	28 mph (43 km/h)	12 mph (16 km/h)
4 - 5 (Overdrive)	40 mph (68 km/h)	16 mph (26 km/h)

Driving

Upshifts when accelerating (for best fuel economy)		
Maximum downshift speeds		
Shift from:	Transfer case position (if equipped)	
	2H or 4H	4L
5 (Overdrive) - 4	55 mph (88 km/h)	22 mph (34 km/h)
4 - 3	45 mph (72 km/h)	18 mph (27 km/h)
3 - 2	35 mph (56 km/h)	14 mph (21 km/h)
2 - 1	20 mph (32 km/h)	8 mph (11 km/h)

Reverse

1. Make sure that your vehicle is at a complete stop before you shift into R (Reverse). Failure to do so may damage the transmission.
2. Move the gearshift lever into the neutral position and wait at least three seconds before shifting into R (Reverse).
 - The gearshift lever can only be moved into R (Reverse) by moving it from left of 3 (Third) and 4 (Fourth) before shifting into R (Reverse). This is a lockout feature that protects the transmission from accidentally being shifted into R (Reverse) from 5 (Overdrive).

Parking your vehicle

1. Apply the brake and shift into the neutral position.
2. Fully apply the parking brake, then shift into 1 (First).
3. Turn the ignition off.

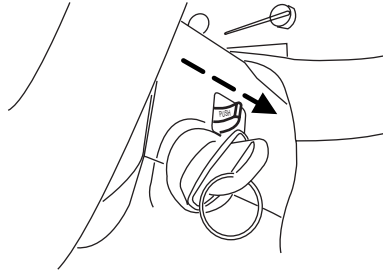


Do not park your vehicle in Neutral, it may move unexpectedly and injure someone. Use 1 (First) gear and set the parking brake fully.

Driving

Removing the key

Turn the ignition off, push the release lever (located above the ignition), then turn the key toward you and remove the key.



If your vehicle gets stuck in mud or snow

If your vehicle gets stuck in mud or snow, it may be rocked out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.

Do not rock the vehicle if the engine is not at normal operating temperature or damage to the transmission may occur.

Do not rock the vehicle for more than a minute or damage to the transmission and tires may occur, or the engine may overheat.

FOUR-WHEEL DRIVE (4WD) OPERATION (IF EQUIPPED)



For important information regarding safe operation of this type of vehicle, see **Preparing to drive your vehicle** in this chapter.

Four-wheel drive (4WD) supplies power to all four wheels. 4WD should not be operated on dry pavement; driveline damage may occur.

If equipped with the Electronic Shift 4WD System, and 4WD Low is selected while the vehicle is moving, the 4WD system will not engage. This is normal and should be no reason for concern. Refer to *Shifting to/from 4WD Low* for proper operation.

4WD system indicator lights

- **4x4** - Momentarily illuminates when the vehicle is started.
Illuminates when 4H (4WD High) is engaged.

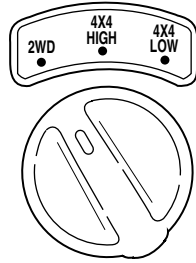
4x4

Driving

- **4x4 LOW** – Momentarily illuminates when the vehicle is started. Illuminates when 4L (4WD Low) is engaged.

**4x4
LOW**

Using the electronic shift 4WD system



2WD (2WD High) - Power to the rear wheels only; used for street and highway driving.

4X4 HIGH (4WD High) - Used for extra traction such as in snow or icy roads or in off-road situations. Not intended for use on dry pavement.

4X4 LOW (4WD Low) - Uses extra gearing to provide maximum power to all four wheels. Intended only for off-road applications such as deep sand, steep grades or pulling heavy objects. 4L (4WD Low) will not engage while the vehicle is moving; this is normal and should be no reason for concern. Refer to *Shifting to/from 4L (4WD Low)* for proper operation.

Shifting between 2WD (2WD High) and 4X4 HIGH (4WD High)

- Move the 4WD control between 2WD and 4X4 HIGH at a stop or any forward speed up to 55 mph (88 km/h).

Note: Do not perform this operation if the rear wheels are slipping.

Shifting to/from 4X4 LOW (4WD Low)

Note: Some noise may be heard as the 4WD system shifts or engages. This is normal and should be no reason for concern.

1. Bring the vehicle to a complete stop
2. Depress the brake
3. On vehicles equipped with an automatic transmission, place the transmission in N (Neutral); on vehicles equipped with a manual transmission, depress the clutch.

4. Move the 4WD control to the desired position.
 - If shifting into 4WD LOW (4WD Low), wait for the 4WD LOW light in the instrument cluster to turn **on** indicating the shift is complete.
 - If shifting out of 4WD LOW (4WD Low), wait for the 4WD LOW light in the instrument cluster to turn **off** indicating the shift is complete.

Driving off-road with truck and utility vehicles

4WD vehicles are specially equipped for driving on sand, snow, mud and rough terrain and have operating characteristics that are somewhat different from conventional vehicles, both on and off the road.

How your vehicle differs from other vehicles

Truck and utility vehicles can differ from some other vehicles. Your vehicle may be higher to allow it to travel over rough terrain without getting hung up or damaging underbody components.

The differences that make your vehicle so versatile also make it handle differently than an ordinary passenger car.

Maintain steering wheel control at all times, especially in rough terrain. Since sudden changes in terrain can result in abrupt steering wheel motion, make sure you grip the steering wheel from the outside. Do not grip the spokes.

Drive cautiously to avoid vehicle damage from concealed objects such as rocks and stumps.

You should either know the terrain or examine maps of the area before driving. Map out your route before driving in the area. To maintain steering and braking control of your vehicle, you must have all four wheels on the ground and they must be rolling, not sliding or spinning.

Basic operating principles

- Do not use 4WD on dry, hard surfaced roads. Doing so will produce excessive noise, increase tire wear and may damage drive components. 4WD modes are only intended for consistently slippery or loose surfaces.
- Drive slower in strong crosswinds which can affect the normal steering characteristics of your vehicle.
- Be extremely careful when driving on pavement made slippery by loose sand, water, gravel, snow or ice.

If your vehicle goes off the edge of the pavement

- If your vehicle goes off the edge of the pavement, slow down, but avoid severe brake application, ease the vehicle back onto the

Driving

pavement only after reducing your speed. Do not turn the steering wheel too sharply while returning to the road surface.

- It may be safer to stay on the apron or shoulder of the road and slow down gradually before returning to the pavement. You may lose control if you do not slow down or if you turn the steering wheel too sharply or abruptly.
- It often may be less risky to strike small objects, such as highway reflectors, with minor damage to your vehicle rather than attempt a sudden return to the pavement which could cause the vehicle to slide sideways out of control or roll over. Remember, your safety and the safety of others should be your primary concern.



Vehicles with a higher center of gravity such as utility and four-wheel drive vehicles handle differently than vehicles with a lower center of gravity. Utility and four-wheel drive vehicles are **not** designed for cornering at speeds as high as passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions. Avoid sharp turns, excessive speed and abrupt maneuvers in these vehicles. Failure to drive cautiously could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

If your vehicle gets stuck

If your vehicle gets stuck in mud or snow it may be rocked out by shifting between forward and reverse gears, stopping between shifts, in a steady pattern. Press lightly on the accelerator in each gear.

Do not rock the vehicle if the engine is not at normal operating temperature or damage to the transmission may occur.

Do not rock the vehicle for more than a few minutes or damage to the transmission and tires may occur or the engine may overheat.



Do not spin the wheels at over 35 mph (56 km/h). The tires may fail and injure a passenger or bystander.

Emergency maneuvers

- In an unavoidable emergency situation where a sudden sharp turn must be made, remember to avoid “over-driving” your vehicle, i.e., turn the steering wheel only as rapidly and as far as required to avoid the emergency. Excessive steering will result in less vehicle control,

Driving

not more. Additionally, smooth variations of the accelerator and/or brake pedal pressure should be utilized if changes in vehicle speed are called for. Avoid abrupt steering, acceleration or braking which could result in an increased risk of loss of vehicle control, vehicle rollover and/or personal injury. Use all available road surface to return the vehicle to a safe direction of travel.

- In the event of an emergency stop, avoid skidding the tires and do not attempt any sharp steering wheel movements.



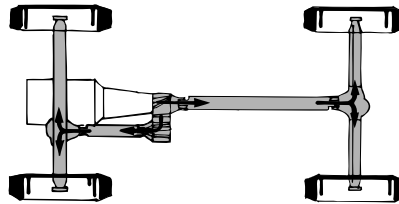
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- If the vehicle goes from one type of surface to another (i.e., from concrete to gravel) there will be a change in the way the vehicle responds to a maneuver (steering, acceleration or braking). Again, avoid these abrupt inputs.

4WD Systems

4WD (when you select a 4WD mode) uses all four wheels to power the vehicle. This increases traction, enabling you to drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot.

Power is supplied to all four wheels through a transfer case. On 4WD vehicles, the transfer case allows you to select 4WD when necessary. Information on transfer case operation and shifting procedures can be found in the *Driving* chapter. Information on transfer case maintenance can be found in the *Maintenance and Specifications* chapter. You should become thoroughly familiar with this information before you operate your vehicle.



Normal characteristics

On some 4WD models, the initial shift from two-wheel drive to 4x4 while the vehicle is moving can cause some momentary clunk and ratcheting sounds.

Driving

Sand

When driving over sand, try to keep all four wheels on the most solid area of the trail. Avoid reducing the tire pressures but shift to a lower gear and drive steadily through the terrain. Apply the accelerator slowly and avoid spinning the wheels.

If you must reduce the tire pressure for whatever reason in sand, make sure you re-inflate the tires as soon as possible.

Note: If your vehicle is equipped with the Tire Pressure Monitoring System (TPMS), the system indicator light may illuminate depending on how much air is released from your tires and/or how long you drive the vehicle under these conditions

Avoid excessive speed because vehicle momentum can work against you and cause the vehicle to become stuck to the point that assistance may be required from another vehicle. Remember, you may be able to back out the way you came if you proceed with caution.

Mud and water

If you must drive through high water, drive slowly. Traction or brake capability may be limited.

When driving through water, determine the depth; avoid water higher than the bottom of the hubs (if possible) and proceed slowly. If the ignition system gets wet, the vehicle may stall.



Once through water, always try the brakes. Wet brakes do not stop the vehicle as effectively as dry brakes. Drying can be improved by moving your vehicle slowly while applying light pressure on the brake pedal.

Be cautious of sudden changes in vehicle speed or direction when you are driving in mud. Even 4WD vehicles can lose traction in slick mud. As when you are driving over sand, apply the accelerator slowly and avoid spinning your wheels. If the vehicle does slide, steer in the direction of the slide until you regain control of the vehicle.

If the transmission, transfer case or front axle are submerged in water, their fluids should be checked and changed, if necessary.

Driving through deep water may damage the transmission.

If the front or rear axle is submerged in water, the axle lubricant should be replaced.

Driving

After driving through mud, clean off residue stuck to rotating driveshafts and tires. Excess mud stuck on tires and rotating driveshafts causes an imbalance that could damage drive components.

“Tread Lightly” is an educational program designed to increase public awareness of land-use regulations and responsibilities in our nations wilderness areas. Ford Motor



Company joins the U.S. Forest Service and the Bureau of Land Management in encouraging you to help preserve our national forest and other public and private lands by “treading lightly.”

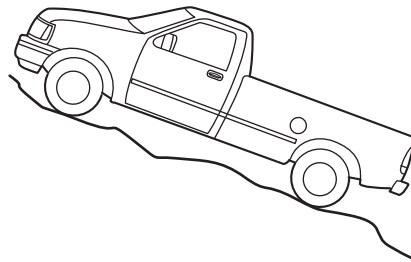
Driving on hilly or sloping terrain

Although natural obstacles may make it necessary to travel diagonally up or down a hill or steep incline, you should always try to drive straight up or straight down. **Avoid driving crosswise or turning on steep slopes or hills.** A danger lies in losing traction, slipping sideways and possibly rolling over. Whenever driving on a hill, determine beforehand the route you will use. Do not drive over the crest of a hill without seeing what conditions are on the other side. Do not drive in reverse over a hill without the aid of an observer.

When climbing a steep slope or hill, start in a lower gear rather than downshifting to a lower gear from a higher gear once the ascent has started. This reduces strain on the engine and the possibility of stalling.

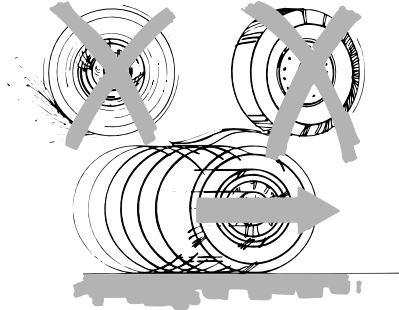
If you do stall out, do not try to turn around because you might roll over. It is better to back down to a safe location.

Apply just enough power to the wheels to climb the hill. Too much power will cause the tires to slip, spin or lose traction, resulting in loss of vehicle control.



Driving

Descend a hill in the same gear you would use to climb up the hill to avoid excessive brake application and brake overheating. Do not descend in neutral; instead, disengage overdrive or manually shift to a lower gear. When descending a steep hill, avoid sudden hard braking as you could lose control. When you brake hard, the front wheels can't turn and if they aren't turning, you won't be able to steer. The front wheels have to be turning in order to steer the vehicle. Rapid pumping of the brake pedal will help you slow the vehicle and still maintain steering control.



Your vehicle is equipped with a Four Wheel Anti-lock Brake System (ABS), apply the brakes steadily. Do not “pump” the brakes.

Driving on snow and ice

4WD vehicles have advantages over 2WD vehicles in snow and ice but can skid like any other vehicle.

Should you start to slide while driving on snowy or icy roads, turn the steering wheel in the direction of the slide until you regain control.

Avoid sudden applications of power and quick changes of direction on snow and ice. Apply the accelerator slowly and steadily when starting from a full stop.

Avoid sudden braking as well. Although a 4WD vehicle may accelerate better than a two-wheel drive vehicle in snow and ice, it won't stop any faster, because as in other vehicles, braking occurs at all four wheels. Do not become overconfident as to road conditions.

Make sure you allow sufficient distance between you and other vehicles for stopping. Drive slower than usual and consider using one of the lower gears. Your vehicle is equipped with a Four Wheel Anti-Lock Brake System (ABS); apply the brake steadily. Do not “pump” the brakes. Refer to the *Brakes* section of this chapter for additional information on the operation of the anti-lock brake system.

Never drive with chains on the front tires of 4WD vehicles without also putting them on the rear tires. This could cause the rear to slide and swing around during braking.

Maintenance and Modifications

The suspension and steering systems on your vehicle have been designed and tested to provide predictable performance whether loaded or empty and durable load carrying capability. For this reason, Ford Motor Company strongly recommends that you do not make modifications such as adding or removing parts (such as lift kits or stabilizer bars) or by using replacement parts not equivalent to the original factory equipment.

Any modifications to a vehicle that raise the center of gravity can make it more likely the vehicle will roll over as a result of a loss of control. Ford Motor Company recommends that caution be used with any vehicle equipped with a high load or device (such as ladder racks or pickup box cover).

Failure to maintain your vehicle properly may void the warranty, increase your repair cost, reduce vehicle performance and operational capabilities and adversely affect driver and passenger safety. Frequent inspection of vehicle chassis components is recommended if the vehicle is subjected to heavy off-road usage.

DRIVING THROUGH WATER

If driving through deep or standing water is unavoidable, proceed very slowly especially if the depth is not known. Never drive through water that is higher than the bottom of the hubs (for trucks) or the bottom of the wheel rims (for cars). Traction or brake capability may be limited and your vehicle may stall. Water may also enter your engine's air intake and severely damage your engine.

Once through the water, always dry the brakes by moving your vehicle slowly while applying light pressure on the brake pedal. Wet brakes do not stop the vehicle as quickly as dry brakes. **Driving through deep water where the transmission vent tube or transfer case vent tube (4x4 vehicles only) are submerged may allow water into the transmission or transfer case and cause internal transmission/transfer case damage.**

CAMPER BODIES

Your Ranger Pickup is not recommended for slide-in camper bodies.

Roadside Emergencies

GETTING ROADSIDE ASSISTANCE

To fully assist you should you have a vehicle concern, Ford Motor Company offers a complimentary roadside assistance program. This program is separate from the New Vehicle Limited Warranty. The service is available:

- 24-hours, seven days a week
- for the New Vehicle Limited Warranty period of three years or 36,000 miles (60,000 km), whichever occurs first on Ford and Mercury vehicles, and four years or 50,000 miles (80,000 km) on Lincoln vehicles.

Roadside assistance will cover:

- a flat tire change with a good spare (except Ford GT which has a tire inflation kit)
- battery jump start
- lock-out assistance (key replacement cost is the customer's responsibility)
- fuel delivery (2.0 gallons [7.5L], maximum two occurrences within 12 month period)
- towing of your disabled vehicle to the nearest Ford Motor Company dealership, or your selling dealer if within 35 miles (56.3 km) of the nearest Ford Motor Company dealership (one tow per disablement). Even non-warranty related tows, like accidents, are covered (some exclusions apply, such as impound towing or repossession).

Canadian customers refer to your Owner Information Guide for information on:

- coverage period
- exact fuel amounts
- towing of your disabled vehicle
- emergency travel expense reimbursement
- travel planning benefits

USING ROADSIDE ASSISTANCE

Complete the roadside assistance identification card and place it in your wallet for quick reference. In the United States, this card is found in the Owner Guide portfolio in the glove compartment. In Canada, the card is found in the *Owner Information Guide* in the glove compartment.

U.S. Ford or Mercury vehicle customers who require roadside assistance, call 1-800-241-3673; Lincoln vehicle customers call 1-800-521-4140.

Roadside Emergencies

Canadian customers who require roadside assistance, call 1-800-665-2006.

If you need to arrange roadside assistance for yourself, Ford Motor Company will reimburse a reasonable amount. To obtain reimbursement information, U.S. Ford or Mercury vehicles customers call 1-800-241-3673; Lincoln vehicle customers call 1-800-521-4140.

Canadian customers who need to obtain reimbursement information, call 1-800-665-2006.

ROADSIDE COVERAGE BEYOND BASIC WARRANTY

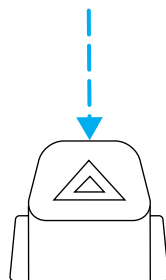
In the United States, you may purchase additional roadside assistance coverage beyond this period through the Ford Auto Club by contacting your Ford or Lincoln Mercury dealer.

Similarly in Canada, for uninterrupted Roadside Assistance coverage, you may purchase extended coverage prior to your Basic Warranty's Roadside Assistance expiring. For more information and enrollment, contact 1-877-294-2582 or visit our website at www.ford.ca.

HAZARD FLASHER

The hazard flasher is located on the steering column, just behind the steering wheel. The hazard flashers will operate when the ignition is in any position or if the key is not in the ignition.

Push in the flasher control and all front and rear direction signals will flash. Press the flasher control again to turn them off. Use it when your vehicle is disabled and is creating a safety hazard for other motorists.



Note: With extended use, the flasher may run down your battery.

FUEL PUMP SHUT-OFF SWITCH

This device stops the electric fuel pump from sending fuel to the engine when your vehicle has had a substantial jolt.

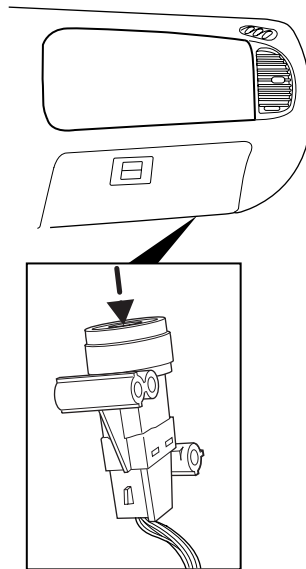
After an accident, if the engine cranks but does not start, this switch may have been activated.

Roadside Emergencies

This switch is located under the right-hand side of the glove box, just above the carpet.

To reset the switch:

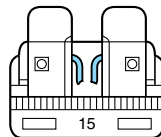
1. Turn the ignition OFF.
2. Check the fuel system for leaks.
3. If no leaks are apparent, reset the switch by pushing in on the reset button.
4. Turn the ignition ON.
5. Wait a few seconds and return the key to OFF.
6. Make another check for leaks.



FUSES AND RELAYS

Fuses

If electrical components in the vehicle are not working, a fuse may have blown. Blown fuses are identified by a broken wire within the fuse. Check the appropriate fuses before replacing any electrical components.



Note: Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.

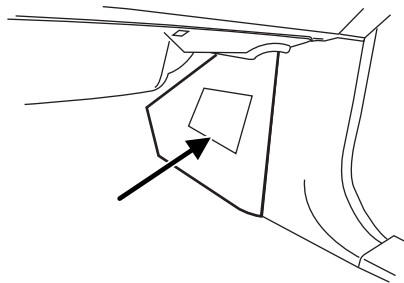
Roadside Emergencies

Standard fuse amperage rating and color

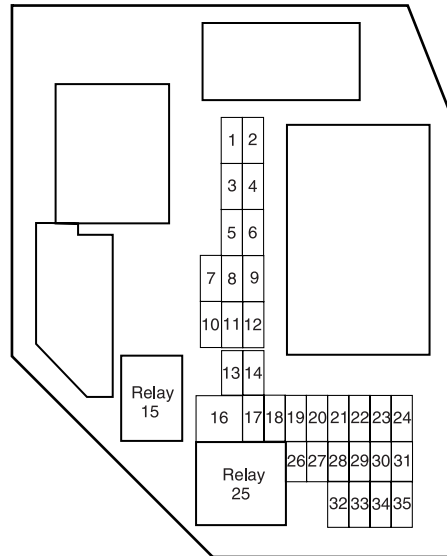
COLOR					
Fuse rating	Mini fuses	Standard fuses	Maxi fuses	Cartridge maxi fuses	Fuse link cartridge
2A	Grey	Grey	—	—	—
3A	Violet	Violet	—	—	—
4A	Pink	Pink	—	—	—
5A	Tan	Tan	—	—	—
7.5A	Brown	Brown	—	—	—
10A	Red	Red	—	—	—
15A	Blue	Blue	—	—	—
20A	Yellow	Yellow	Yellow	Blue	Blue
25A	Natural	Natural	—	—	—
30A	Green	Green	Green	Pink	Pink
40A	—	—	Orange	Green	Green
50A	—	—	Red	Red	Red
60A	—	—	Blue	—	Yellow
70A	—	—	Tan	—	Brown
80A	—	—	Natural	—	Black

Passenger compartment fuse panel

The fuse panel is located under the right-hand side of the instrument panel behind the kick panel. A fuse puller tool is located near the top left corner of the fuse box; this tool will assist you in pulling the fuses out for inspection, if necessary.



Roadside Emergencies



The fuses are coded as follows:

Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
1	5A	Instrument panel dimmer switch
2	10A	Trailer tow park lamps
3	10A	Right low beam headlamp
4	10A	Left low beam headlamp
5	30A	Windshield wipers/washer
6	10A	Radio (RUN/ACCY)
7	5A	Headlamp illumination indicator
8	10A	Restraints Control Module (RCM), PADI (Passenger Air bag Deactivation Indicator)
9	5A	Cluster air bag indicator
10	10A	Cluster (RUN/START), 4x4 module (RUN/START), Tire Pressure Monitoring System (TPMS) (RUN/START)

Roadside Emergencies

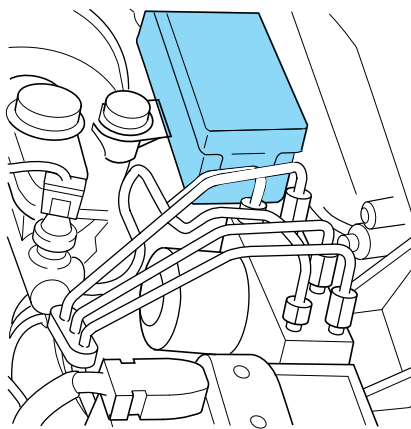
Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
11	10A	Smart Junction Box (SJB) (Logic power)
12	15A	Center console subwoofer amplifier
13	15A	Horn, Interior lamps
14	15A	High beam headlamp, High beam indicator (cluster)
15	—	One-touch down relay
16	30A cartridge fuse	Power windows
17	15A	Turn signals/Hazards
18	—	Not used
19	20A	Center High-Mounted Stop Lamp (CHMSL)/Stop lamps
20	10A	Anti-lock Brake System (ABS) module, Brake-shift interlock, Speed control module, Back-up lamps, Overdrive cancel switch, Electronic flasher (turn/hazard)
21	5A	Starter relay
22	5A	Radio (START), 4x4 Neutral sense (manual only)
23	30A	Headlamps (low and high beam)
24	20A	Radio
25	—	Accessory relay
26	2A	Brake pressure switch
27	10A	Climate control blower relay/blend doors, 4x4 module
28	15A	4x4 module B+
29	20A	Cigar lighter or power point, Diagnostic connector (OBD II)
30	5A	Power mirrors
31	20A	Front park lamps, Rear park lamps, License plate lamps

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
32	5A	Brake switch (logic)
33	5A	Instrument cluster, TPMS module
34	20A	Power point
35	15A	Power locks

Power distribution box

The power distribution box is located in the engine compartment. The power distribution box contains high-current fuses that protect your vehicle's main electrical systems from overloads.



Always disconnect the battery before servicing high current fuses.

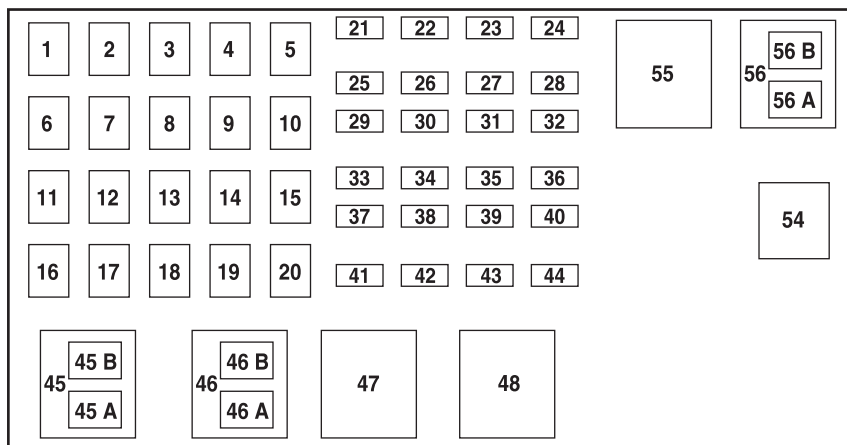


To reduce risk of electrical shock, always replace the cover to the Power Distribution Box before reconnecting the battery or refilling fluid reservoirs.

If the battery has been disconnected and reconnected, refer to the *Battery* section of the *Maintenance and Specifications* chapter.

Roadside Emergencies

2.3L engine (if equipped)



The high-current fuses are coded as follows:

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
1	40A**	Interior fuse panel (SJB)
2	—	Not used
3	40A**	Interior fuse panel (SJB)
4	—	Not used
5	50A**	Interior fuse panel (SJB)
6	—	Not used
7	40A**	Starter
8	—	Not used
9	40A**	Ignition switch
10	—	Not used
11	30A**	Powertrain Control Module (PCM), Engine sensors
12	—	Not used
13	30A**	Blower motor (climate control)

Roadside Emergencies

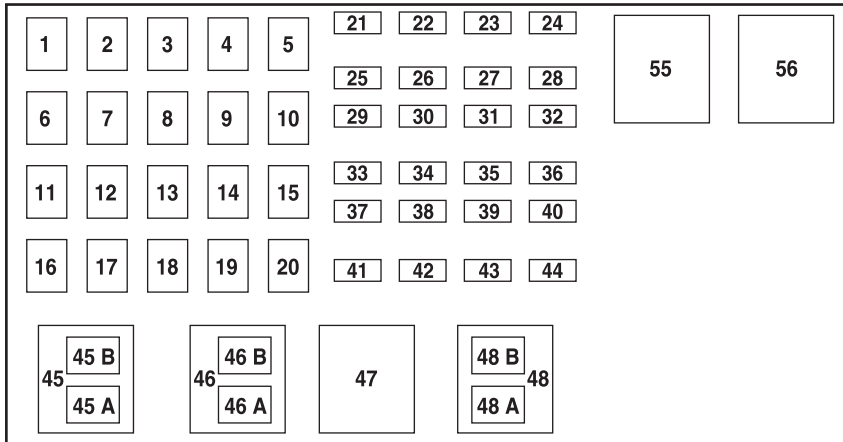
Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
14	—	Not used
15	—	Not used
16	—	Not used
17	40A**	ABS (motor)
18	—	Not used
19	20A**	Engine fan
20	—	Not used
21	10A*	PCM
22	—	Not used
23	20A*	Fuel pump
24	—	Not used
25	10A*	A/C clutch solenoid
26	—	Not used
27	—	Not used
28	—	Not used
29	—	Not used
30	—	Not used
31	—	Not used
32	—	Not used
33	30A*	Anti-lock Brake System (ABS) (solenoids)
34	—	Not used
35	—	Not used
36	—	Not used
37	—	Not used
38	7.5A*	Trailer tow (right turn)
39	—	Not used
40	—	Not used
41	15A*	Heated Exhaust Gas Oxygen (HEGO) sensors, EVAP canister vent valve, Exhaust Gas Recirculation (EGR) stepper motor, Transmission

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
42	7.5A*	Trailer tow (left turn)
43	—	Not used
44	—	Not used
45A	—	Wiper HI/LO relay
45B	—	Wiper Park/Run relay
46A	—	Fuel pump relay
46B	—	Washer pump relay
47	—	Engine fan relay
48	—	Starter relay
49	—	Not used
50	—	Not used
51	—	Not used
52	—	Not used
53	—	Not used
54	—	PCM relay
55	—	Blower relay
56A	—	A/C clutch solenoid relay
56B	—	Not used
* Mini Fuses ** Maxi Fuses		

Roadside Emergencies

3.0L and 4.0L engines (if equipped)



The high-current fuses are coded as follows:

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
1	40A**	Interior fuse panel (SJB)
2	40A**	Amplifier (Tremor audio system only)
3	40A**	Interior fuse panel (SJB)
4	—	Not used
5	50A**	Interior fuse panel (SJB)
6	—	Not used
7	40A**	Starter
8	—	Not used
9	40A**	Ignition switch
10	—	Not used
11	30A**	Powertrain Control Module (PCM), Engine sensors
12	—	Not used
13	30A**	Blower motor (climate control)
14	—	Not used

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
15	—	Not used
16	—	Not used
17	40A**	ABS (motor)
18	—	Not used
19	—	Not used
20	—	Not used
21	10A*	PCM
22	—	Not used
23	20A*	Fuel pump
24	—	Not used
25	10A*	A/C clutch solenoid
26	—	Not used
27	20A*	4x4 module
28	—	Not used
29	—	Not used
30	—	Not used
31	15A*	Fog lamps
32	—	Not used
33	30A*	Anti-lock Brake System (ABS) (solenoids)
34	—	Not used
35	—	Not used
36	—	Not used
37	—	Not used
38	7.5A*	Trailer tow (right turn)
39	—	Not used
40	—	Not used
41	15A*	Heated Exhaust Gas Oxygen (HEGO) sensors, EVAP canister vent valve, Exhaust Gas Recirculation (EGR) stepper motor, Transmission
42	7.5A*	Trailer tow (left turn)

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
43	—	Not used
44	—	Not used
45A	—	Wiper HI/LO relay
45B	—	Wiper Park/Run relay
46A	—	A/C clutch solenoid
46B	—	Washer pump relay
47	—	PCM relay
48A	—	Fuel pump relay
48B	—	Fog lamp relay
51	—	Not used
52	—	Not used
53	—	Not used
54	—	Not used
55	—	Blower relay
56	—	Starter relay
* Mini Fuses ** Maxi Fuses		

JUMP STARTING YOUR VEHICLE



The gases around the battery can explode if exposed to flames, sparks, or lit cigarettes. An explosion could result in injury or vehicle damage.



Batteries contain sulfuric acid which can burn skin, eyes and clothing, if contacted.

Do not attempt to push-start your vehicle. Automatic transmissions do not have push-start capability; doing so may damage the catalytic converter.

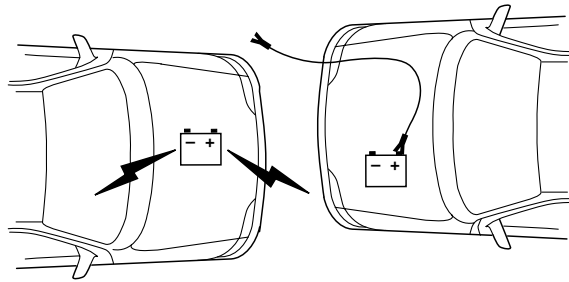
Preparing your vehicle

When the battery is disconnected or a new battery is installed, the transmission must relearn its shift strategy. As a result, the transmission may have firm and/or soft shifts. This operation is considered normal and will not affect function or durability of the transmission. Over time, the adaptive learning process will fully update transmission operation.

Roadside Emergencies

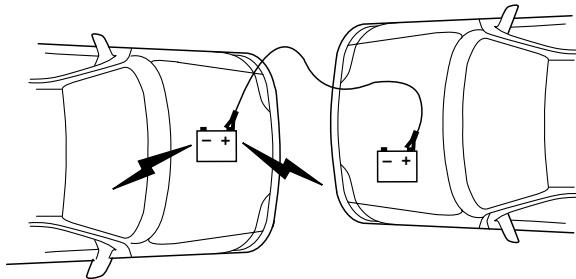
1. Use **only a 12-volt supply** to start your vehicle.
2. Do not disconnect the battery of the disabled vehicle as this could damage the vehicle's electrical system.
3. Park the booster vehicle close to the hood of the disabled vehicle making sure the two vehicles **do not** touch. Set the parking brake on both vehicles and stay clear of the engine cooling fan and other moving parts.
4. Check all battery terminals and remove any excessive corrosion before you attach the battery cables. Ensure that vent caps are tight and level.
5. Turn the heater fan on in both vehicles to protect any electrical surges. Turn all other accessories off.

Connecting the jumper cables



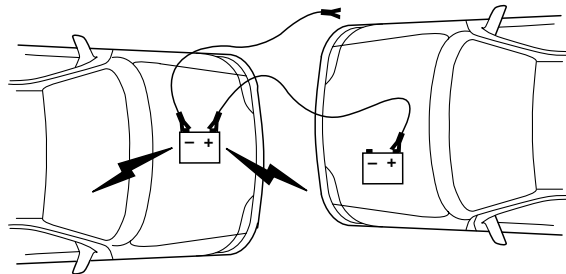
1. Connect the positive (+) jumper cable to the positive (+) terminal of the discharged battery.

Note: In the illustrations, *lightning bolts* are used to designate the assisting (boosting) battery.

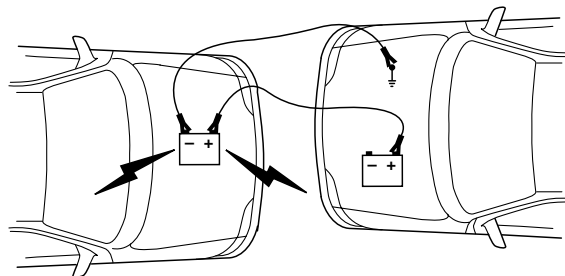


Roadside Emergencies

2. Connect the other end of the positive (+) cable to the positive (+) terminal of the assisting battery.



3. Connect the negative (-) cable to the negative (-) terminal of the assisting battery.



4. Make the final connection of the negative (-) cable to an exposed metal part of the stalled vehicle's engine, away from the battery and the carburetor/fuel injection system. **Do not** use fuel lines, engine rocker covers or the intake manifold as *grounding* points.



Do not connect the end of the second cable to the negative (-) terminal of the battery to be jumped. A spark may cause an explosion of the gases that surround the battery.

5. Ensure that the cables are clear of fan blades, belts, moving parts of both engines, or any fuel delivery system parts.

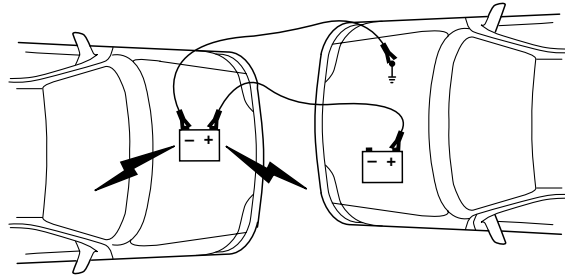
Jump starting

1. Start the engine of the booster vehicle and run the engine at moderately increased speed.

Roadside Emergencies

2. Start the engine of the disabled vehicle.
3. Once the disabled vehicle has been started, run both engines for an additional three minutes before disconnecting the jumper cables.

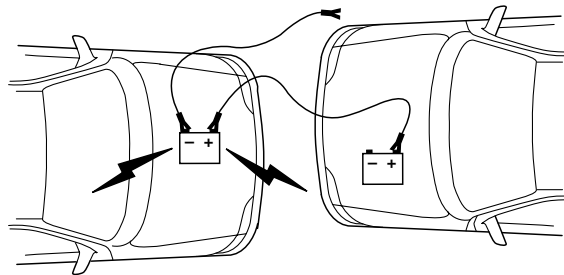
Removing the jumper cables



Remove the jumper cables in the reverse order that they were connected.

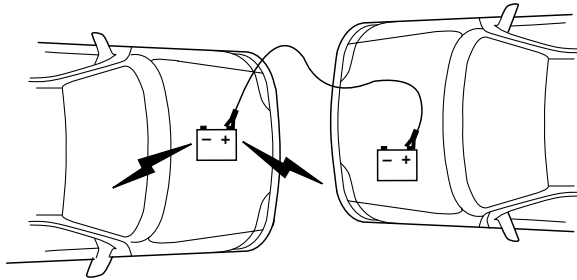
1. Remove the jumper cable from the *ground* metal surface.

Note: In the illustrations, *lightning bolts* are used to designate the assisting (boosting) battery.

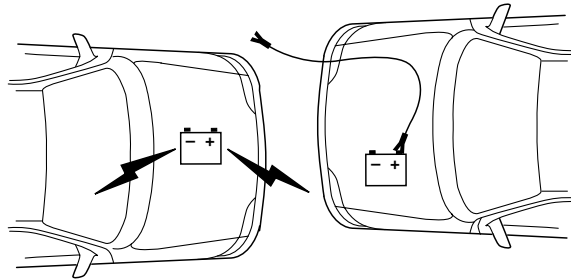


2. Remove the jumper cable on the negative (-) connection of the booster vehicle's battery.

Roadside Emergencies



3. Remove the jumper cable from the positive (+) terminal of the booster vehicle's battery.

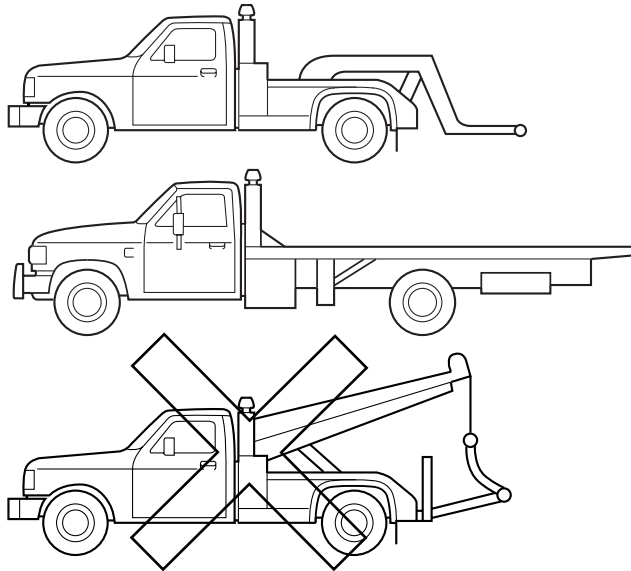


4. Remove the jumper cable from the positive (+) terminal of the disabled vehicle's battery.

After the disabled vehicle has been started and the jumper cables removed, allow it to idle for several minutes so the engine computer can *relearn* its idle conditions.

Roadside Emergencies

WRECKER TOWING



If you need to have your vehicle towed, contact a professional towing service or, if you are a member of a roadside assistance program, your roadside assistance service provider.

It is recommended that your vehicle be towed with a wheel lift or flatbed equipment. Do not tow with a slingbelt. Ford Motor Company has not approved a slingbelt towing procedure.

On 4x2 vehicles, it is acceptable to tow the vehicle with the front wheels on the ground and the rear wheels off the ground.

On 4x4 and STX vehicles, it is recommended that your vehicle be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground.

If the vehicle is towed by other means or incorrectly, vehicle damage may occur.

Ford Motor Company produces a towing manual for all authorized tow truck operators. Have your tow truck operator refer to this manual for proper hook-up and towing procedures for your vehicle.

Customer Assistance

GETTING THE SERVICES YOU NEED

At home

You must take your Ford vehicle to an authorized Ford dealer for warranty repairs. While any Ford dealership handling your vehicle line will provide warranty service, we recommend you return to your selling dealer who wants to ensure your continued satisfaction. Please note that certain warranty repairs require special training and/or equipment, so not all dealers are authorized to perform all warranty repairs. This means that, depending on the warranty repair needed, you may have to take your vehicle to another dealer. A reasonable time must be allowed to perform a repair after taking your vehicle to the dealership. Repairs will be made using Ford or Motorcraft parts, or remanufactured or other parts that are authorized by Ford.

If you have questions or concerns, or are unsatisfied with the service you are receiving, follow these steps:

1. Contact your Sales Representative or Service Advisor at your selling/servicing dealership.
2. If your inquiry or concern remains unresolved, contact the Sales Manager, Service Manager or Customer Relations Manager.
3. If you require assistance or clarification on Ford Motor Company policies or procedures, please contact the Ford Customer Relationship Center at the number below.

Away from home

If you own a Ford or Mercury vehicle and are away from home when your vehicle needs service, or if you need more help than the dealership could provide, after following the steps described above, contact the Ford Customer Relationship Center to find an authorized dealership to help you.

In the United States:

Ford Motor Company
Customer Relationship Center
P.O. Box 6248
Dearborn, MI 48121
1-800-392-3673 (FORD)
(TDD for the hearing impaired: 1-800-232-5952)
www.customersaskford.com

Customer Assistance

In Canada:
Customer Relationship Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-565-3673 (FORD)
www.ford.ca

If you own a Lincoln vehicle and are away from home when your vehicle needs service, or if you need more help than the dealership could provide, after following the steps described above, contact the Ford Customer Relationship Center to find an authorized dealership to help you.

In the United States:
Ford Motor Company
Customer Relationship Center
P.O. Box 6248
Dearborn, MI 48121
1-800-521-4140
(TDD for the hearing impaired: 1-800-232-5952)
www.customersaskford.com

In Canada:
Lincoln Centre
Ford Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6J 5E4
1-800-387-9333
www.lincolncanada.com

In order to help you service your Lincoln vehicle, please have the following information available when contacting the Lincoln Centre:

- Your telephone number (home and business)
- The name of the dealer and the city where the dealership is located
- The year and make of your vehicle
- The date of vehicle purchase
- The current odometer reading
- The vehicle identification number (VIN)

Additional Assistance

If you still have a complaint involving a warranty dispute, you may wish to contact the Dispute Settlement Board (U.S.).

Customer Assistance

In some states (in the U.S.) you must directly notify Ford in writing before pursuing remedies under your state's warranty laws. Ford is also allowed a final repair attempt in some states.

In the United States, a warranty dispute must be submitted to the Dispute Settlement Board before taking action under the Magnuson-Moss Warranty Act, or to the extent allowed by state law, before pursuing replacement or repurchase remedies provided by certain state laws. This dispute handling procedure is not required prior to enforcing state created rights or other rights which are independent of the Magnuson-Moss Warranty Act or state replacement or repurchase laws.

IN CALIFORNIA (U.S. ONLY)

California Civil Code Section 1793.2(d) requires that, if a manufacturer or its representative is unable to repair a motor vehicle to conform to the vehicle's applicable express warranty after a reasonable number of attempts, the manufacturer shall be required to either replace the vehicle with one substantially identical or repurchase the vehicle and reimburse the buyer in an amount equal to the actual price paid or payable by the consumer (less a reasonable allowance for consumer use). The consumer has the right to choose whether to receive a refund or replacement vehicle.

California Civil Code Section 1793.22(b) presumes that the manufacturer has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within the first 18 months of ownership of a new vehicle or the first 18,000 miles (29,000 km), whichever occurs first:

1. Two or more repair attempts are made on the same non-conformity likely to cause death or serious bodily injury OR
2. Four or more repair attempts are made on the same nonconformity (a defect or condition that substantially impairs the use, value or safety of the vehicle) OR
3. The vehicle is out of service for repair of nonconformities for a total of more than 30 calendar days (not necessarily all at one time)

In the case of 1 or 2 above, the consumer must also notify the manufacturer of the need for the repair of the nonconformity at the following address:

Ford Motor Company
16800 Executive Plaza Drive
Mail Drop 3NE-B
Dearborn, MI 48126

Customer Assistance

THE DISPUTE SETTLEMENT BOARD (U.S. ONLY)

The Dispute Settlement Board is:

- an independent, third-party arbitration program for warranty disputes.
- available free to owners and lessees of qualifying Ford Motor Company vehicles.

The Dispute Settlement Board may not be available in all states. Ford Motor Company reserves the right to change eligibility limitations, modify procedures and/or to discontinue this service without notice and without incurring obligations per applicable state law.

What kinds of cases does the Board review?

Unresolved warranty repair concerns or vehicle performance concerns as on Ford and Lincoln Mercury cars and Ford and Lincoln Mercury light trucks which are within the terms of any applicable written new vehicle warranty are eligible for review, except those involving:

- a non-Ford product
- a non-Ford dealership
- sales disputes between customer and dealer except those associated with warranty repairs or concerns with the vehicle's performance as designed
- a request for reimbursement of consequential expenses unless a service or product concern is being reviewed
- items not covered by the New Vehicle Limited Warranty (including maintenance and wear items)
- alleged personal injury/property damage claims
- cases currently in litigation
- vehicles not used primarily for family, personal or household purposes (except in states where the Dispute Settlement Board is required to review commercial vehicles)
- vehicles with non-U.S. warranties

Concerns are ineligible for review if the New Vehicle Limited Warranty has expired at receipt of your application and, in certain states eligibility is dependent upon the customer's possession of the vehicle.

Eligibility may differ according to state law. For example, see the unique brochures for California, West Virginia, Georgia and Wisconsin purchasers/lessees.

Customer Assistance

Board membership

The Board consists of:

- Three consumer representatives
- A Ford or Lincoln Mercury dealership representative

Consumer candidates for Board membership are recruited and trained by an independent consulting firm. The dealership Board member is chosen from Ford and Lincoln Mercury dealership management, recognized for their business leadership qualities.

What the Board needs

To have your case reviewed you must complete the application in the DSB brochure and mail it to the address provided on the application form. Some states will require you to use certified mail, with return receipt requested.

Your application is reviewed and, if it is determined to be eligible, you will receive an acknowledgment indicating:

- The file number assigned to your application.
- The toll-free phone number of the DSB's independent administrator.

Your dealership and a Ford Motor Company representative will then be asked to submit statements.

To properly review your case, the Board needs the following information:

- Legible copies of all documents and maintenance or repair orders relevant to the case.
- The year, make, model, and Vehicle Identification Number (VIN) listed on your vehicle ownership license.
- The date of repair(s) and mileage at the time of occurrence(s).
- The current mileage.
- The name of the dealer(s) who sold or serviced the vehicle.
- A brief description of your unresolved concern.
- A brief summary of the action taken by the dealer(s) and Ford Motor Company.
- The names (if known) of all the people you contacted at the dealership(s).
- A description of the action you expect to resolve your concern.

You will receive a letter of explanation if your application does not qualify for Board review.

Oral presentations

If you would like to make an oral presentation, indicate YES to question 6 on the application. While it is your right to make an oral presentation

Customer Assistance

before the Board, this is not a requirement and the Board will decide the case whether or not an oral presentation is made. An oral presentation may be requested by the Board as well.

Making a decision

Board members review all available information related to each complaint, including oral presentations, and arrive at a fair and impartial decision. Board review may be terminated at any time by either party.

Every effort is made to decide the case within 40 days of the date that all requested information is received by the Board. Since the Board generally meets once a month, it may take longer for the Board to consider some cases.

After a case is reviewed, the Board mails you a decision letter and a form on which to accept or reject the Board's decision. The decisions of the Board are binding on Ford (and, in some cases, on the dealer) but not on consumers who are free to pursue other remedies available to them under state or federal law.

To request a DSB Brochure/Application

For a brochure/application, speak to your dealer or write/call the Board at the following address/phone number:

Dispute Settlement Board
P.O. Box 1424
Waukesha, WI 53187-1424
1-800-428-3718

You may also contact the North American Customer Relationship Center at 1-800-392-3673 (Ford), TDD for the hearing impaired: 1-800-232-5952 or by writing to the Center at the following address:

Ford Motor Company
Customer Relationship Center
P.O. Box 6248
Dearborn, Michigan 48121

UTILIZING THE MEDIATION/ARBITRATION PROGRAM (CANADA ONLY)

In those cases where you continue to feel that the efforts by Ford and the dealer to resolve a factory-related vehicle service concern have been unsatisfactory, Ford of Canada participates in an impartial third party mediation/arbitration program administered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

Customer Assistance

The CAMVAP program is a straight-forward and relatively speedy alternative to resolve a disagreement when all other efforts to produce a settlement have failed. This procedure is without cost to you and is designed to eliminate the need for lengthy and expensive legal proceedings.

In the CAMVAP program, impartial third-party arbitrators conduct hearings at mutually convenient times and places in an informal environment. These impartial arbitrators review the positions of the parties, make decisions and, when appropriate, render awards to resolve disputes. CAMVAP decisions are fast, fair, and final; the arbitrator's award is binding both to you and Ford of Canada.

CAMVAP services are available in all territories and provinces. For more information, without charge or obligation, call your CAMVAP Provincial Administrator directly at 1-800-207-0685.

FORD EXTENDED SERVICE PLAN

You can get more protection for your new car or light truck by purchasing Ford Extended Service Plan (Ford ESP) coverage. It provides the following:

- Benefits during the warranty period depending on the plan you purchase (such as: reimbursement for rentals; coverage for certain maintenance and wear items).
- Protection against covered repair costs after your Bumper-to-Bumper Warranty expires.

You may purchase Ford ESP from any participating Ford and Lincoln Mercury and Ford of Canada dealer. There are several plans available in various time, distance and deductible combinations which can be tailored to fit your own driving needs. Ford ESP also offers reimbursement benefits for towing and rental coverage.

When you buy Ford ESP, you receive Peace-of-Mind protection throughout the United States and Canada, provided by a network of more than 5,000 participating Ford or Lincoln Mercury and Ford of Canada dealers.

If you did not take advantage of the Ford Extended Service Plan at the time of purchasing your vehicle, you may still be eligible. Since this information is subject to change, please ask your dealer for complete details about Ford Extended Service Plan coverage options, or visit the Ford ESP website at www.ford-esp.com.

Customer Assistance

GETTING ASSISTANCE OUTSIDE THE U.S. AND CANADA

Before exporting your vehicle to a foreign country, contact the appropriate foreign embassy or consulate. These officials can inform you of local vehicle registration regulations and where to find unleaded fuel.

If you cannot find unleaded fuel or can only get fuel with an anti-knock index lower than is recommended for your vehicle, contact a district or owner relations/customer relationship office.

The use of leaded fuel in your vehicle without proper conversion may damage the effectiveness of your emission control system and may cause engine knocking or serious engine damage. Ford Motor Company/Ford of Canada is not responsible for any damage caused by use of improper fuel.

In the United States, using leaded fuel may also result in difficulty importing your vehicle back into the U.S.

If your vehicle must be serviced while you are traveling or living in Central or South America, the Caribbean, or the Middle East, contact the nearest Ford dealership. If the dealership cannot help you, write or call:

FORD MOTOR COMPANY
WORLDWIDE DIRECT MARKET OPERATIONS
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101
U.S.A.
Telephone: (313) 594-4857
FAX: (313) 390-0804

If you are in another foreign country, contact the nearest Ford dealership. If the dealership employees cannot help you, they can direct you to the nearest Ford affiliate office.

If you buy your vehicle in North America and then relocate outside of the U.S. or Canada, register your vehicle identification number (VIN) and new address with Ford Motor Company Worldwide Direct Market Operations.

Customer Assistance

ORDERING ADDITIONAL OWNER'S LITERATURE

To order the publications in this portfolio, contact Helm, Incorporated at:

HELM, INCORPORATED
P.O. Box 07150
Detroit, Michigan 48207

Or call:

For a free publication catalog, order toll free: 1-800-782-4356

Monday-Friday 8:00 a.m. - 6:00 p.m. EST

Helm, Incorporated can also be reached by their website:
www.helminc.com.

(Items in this catalog may be purchased by credit card, check or money order.)

Obtaining a French owner's guide

French Owner's Guides can be obtained from your dealer or by writing to Ford Motor Company of Canada, Limited, Service Publications, P.O. Box 1580, Station B, Mississauga, Ontario L4Y 4G3.

REPORTING SAFETY DEFECTS (U.S. ONLY)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety



Administration (NHTSA) in addition to notifying Ford Motor Company.

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 dealer, or Ford Motor Company.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in the Washington D.C. area) or write to:

NHTSA
400 Seventh Street
U.S. Department of Transportation
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from the Hotline.

WASHING THE EXTERIOR

Wash your vehicle regularly with cool or lukewarm water and a neutral Ph shampoo, such as Motorcraft Detail Wash (ZC-3-A), which is available from your dealer.

- Never use strong household detergents or soap, such as dish washing or laundry liquid. These products can discolor and spot painted surfaces.
- Never wash a vehicle that is “hot to the touch” or during exposure to strong, direct sunlight.
- Always use a clean sponge or car wash mitt with plenty of water for best results.
- Dry the vehicle with a chamois or soft terry cloth towel in order to eliminate water spotting.
- It is especially important to wash the vehicle regularly during the winter months, as dirt and road salt are difficult to remove and cause damage to the vehicle.
- Immediately remove items such as gasoline, diesel fuel, bird droppings and insect deposits because they can cause damage to the vehicle's paintwork and trim over time.
- Remove any exterior accessories, such as antennas, before entering a car wash.
- **Suntan lotions and insect repellents can damage any painted surface; if these substances come in contact with your vehicle, wash off as soon as possible.**
- **If your vehicle is equipped with running boards, do not use rubber, plastic and vinyl protectant products on the running board surface, as the area may become slippery.**

WAXING

Applying a polymer paint sealant to your vehicle every six months will assist in reducing minor scratches and paint damage.

- Wash the vehicle first.
- Do not use waxes that contain abrasives.
- Do not allow paint sealant to come in contact with any non-body (low-gloss black) colored trim, such as grained door handles, roof racks, bumpers, side moldings, mirror housings or the windshield cowl area. The paint sealant will “gray” or stain the parts over time.

Cleaning

PAINT CHIPS

Your dealer has touch-up paint and sprays to match your vehicle's color. Take your color code (printed on a sticker in the driver's door jam) to your dealer to ensure you get the correct color.

- Remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout before repairing paint chips.
- Always read the instructions before using the products.

ALUMINUM WHEELS AND WHEEL COVERS

Aluminum wheels and wheel covers are coated with a clearcoat paint finish. In order to maintain their shine:

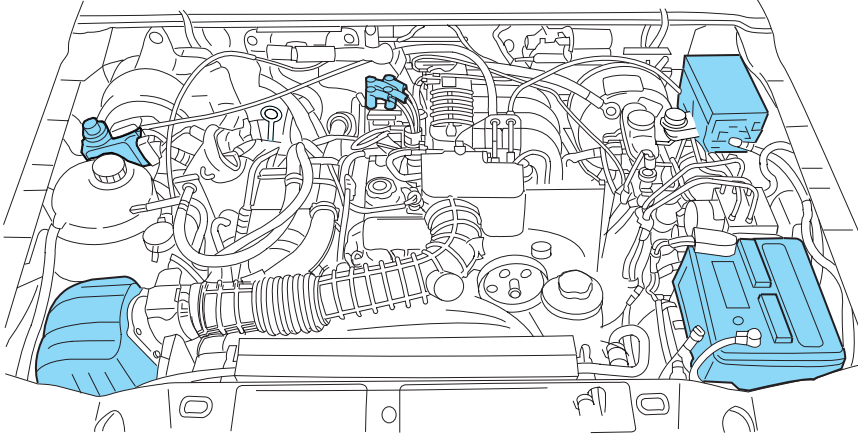
- Clean weekly with Motorcraft Wheel and Tire Cleaner (ZC-37-A), which is available from your dealer. Heavy dirt and brake dust accumulation may require agitation with a sponge. Rinse thoroughly with a strong stream of water.
- Never apply any cleaning chemical to hot or warm wheel rims or covers.
- Some automatic car washes may cause damage to the finish on your wheel rims or covers. Chemical-strength cleaners, or cleaning chemicals, in combination with brush agitation to remove brake dust and dirt, could wear away the clearcoat finish over time.
- Do not use hydrofluoric acid-based or high caustic-based wheel cleaners, steel wool, fuels or strong household detergent.
- To remove tar and grease, use Motorcraft Bug and Tar Remover (ZC-42), available from your dealer.

ENGINE

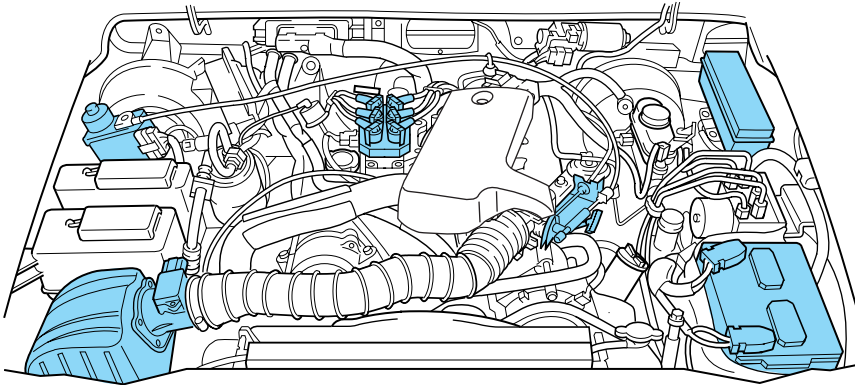
Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal. When washing:

- Take care when using a power washer to clean the engine. The high-pressure fluid could penetrate the sealed parts and cause damage.
- Do not spray a hot engine with cold water to avoid cracking the engine block or other engine components.
- Spray Motorcraft Engine Shampoo and Degreaser (ZC-20) on all parts that require cleaning and pressure rinse clean.
- Cover the highlighted areas to prevent water damage when cleaning the engine.

Cleaning

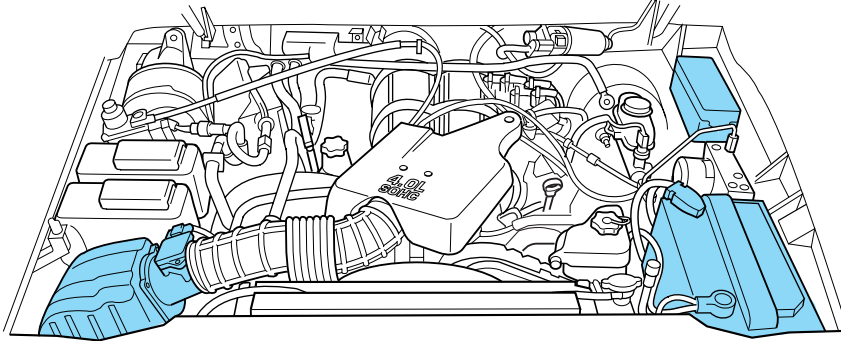


- **2.3L I4 engine**



- **3.0L V6 engine**

Cleaning



- **4.0L SOHC V6 engine**

- Never wash or rinse the engine while it is running; water in the running engine may cause internal damage.

PLASTIC (NON-PAINTED) EXTERIOR PARTS

Use only approved products to clean plastic parts. These products are available from your dealer.

- For routine cleaning, use Motorcraft Detail Wash (ZC-3-A).
- If tar or grease spots are present, use Motorcraft Bug and Tar Remover (ZC-42).

WINDOWS AND WIPER BLADES

The windshield, rear and side windows and the wiper blades should be cleaned regularly. If the wipers do not wipe properly, substances on the vehicle's glass or the wiper blades may be the cause. These may include hot wax treatments used by commercial car washes, tree sap, or other organic contamination. To clean these items, please follow these tips:

- The windshield, rear windows and side windows may be cleaned with a non-abrasive cleaner such as Motorcraft Ultra Clear Spray Glass Cleaner (ZC-23), available from your dealer.
- Do not use abrasives, as they may cause scratches.
- Do not use fuel, kerosene, or paint thinner to clean any parts.
- Wiper blades can be cleaned with isopropyl (rubbing) alcohol or windshield washer solution. Be sure to replace wiper blades when they appear worn or do not function properly.

INSTRUMENT PANEL AND CLUSTER LENS

Clean the instrument panel with a damp cloth, then dry with a dry cloth.

Cleaning

- Avoid cleaners or polish that increase the gloss of the upper portion of the instrument panel. The dull finish in this area helps protect the driver from undesirable windshield reflection.



Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the air bag system.

- Be certain to wash or wipe your hands clean if you have been in contact with certain products such as insect repellent and suntan lotion in order to avoid possible damage to the interior painted surfaces.

INTERIOR

For fabric, carpets, cloth seats and safety belts:

- Remove dust and loose dirt with a vacuum cleaner.
- Remove light stains and soil with Motorcraft Extra Strength Upholstery Cleaner (ZC-41).
- If grease or tar is present on the material, spot-clean the area first with Motorcraft Spot and Stain Remover (ZC-14).
- Never saturate the seat covers with cleaning solution.
- Do not use household cleaning products or glass cleaners, which can stain and discolor the fabric and affect the flame retardant abilities of the seat materials.



Do not use cleaning solvents, bleach or dye on the vehicle's seatbelts, as these actions may weaken the belt webbing.

LEATHER SEATS (IF EQUIPPED)

Your leather seating surfaces have a clear, protective coating over the leather.

- To clean, use a soft cloth with Motorcraft Deluxe Leather and Vinyl Cleaner (ZC-11-A). Dry the area with a soft cloth.
- To help maintain its resiliency and color, use the Motorcraft Deluxe Leather Care Kit (ZC-11-D), available from your authorized dealer.
- Do not use household cleaning products, alcohol solutions, solvents or cleaners intended for rubber, vinyl and plastics, or oil/petroleum-based leather conditioners. These products may cause premature wearing of the clear, protective coating.

Cleaning

Note: In some instances, color or dye transfer can occur when wet clothing comes in contact with leather upholstery. If this occurs, the leather should be cleaned immediately to avoid permanent staining.

UNDERBODY

Flush the complete underside of your vehicle frequently. Keep body and door drain holes free from packed dirt.

FORD, LINCOLN AND MERCURY CAR CARE PRODUCTS

Your Ford, Lincoln or Mercury dealer has many quality products available to clean your vehicle and protect its finishes. These quality products have been specifically engineered to fulfill your automotive needs; they are custom designed to complement the style and appearance of your vehicle. Each product is made from high quality materials that meet or exceed rigid specifications. For best results, use the following products or products of equivalent quality:

Motorcraft Custom Clearcoat Polish (ZC-8-A)
Motorcraft Custom Vinyl Protectant (not available in Canada) (ZC-40-A)
Motorcraft Vinyl Cleaner (Canada only) (CXC-93)
Motorcraft Vinyl Conditioner (Canada only) (CXC-94)
Motorcraft Deluxe Leather and Vinyl Cleaner (not available in Canada) (ZC-11-A)
Motorcraft Bug and Tar Remover (ZC-42)
Motorcraft Extra Strength Upholstery Cleaner (not available in Canada) (ZC-41)
Motorcraft Custom Bright Metal Cleaner (ZC-15)
Motorcraft Wheel and Tire Cleaner (ZC-37-A)
Motorcraft Dash and Vinyl Cleaner (ZC-38-A)
Motorcraft Car Care Kit (ZC-26)
Motorcraft Premium Car Wash Concentrate (ZC-17-B)
Motorcraft Carlite Glass Cleaner (Canada only) (CXC-100)
Motorcraft Spot and Stain Remover (ZC-14)
Motorcraft Detail Wash (ZC-3-A)
Motorcraft Tire Clean and Shine (ZC-28)
Motorcraft Triple Clean (ZC-13)
Motorcraft Ultra-Clear Spray Glass Cleaner (not available in Canada) (ZC-23)
Motorcraft Engine Shampoo and Degreaser (ZC-20)

Maintenance and Specifications

SERVICE RECOMMENDATIONS

To help you service your vehicle:

- We highlight do-it-yourself items in the engine compartment for easy location.
- We provide a scheduled maintenance guide which makes tracking routine service easy.

If your vehicle requires professional service, your dealership can provide the necessary parts and service. Check your *Warranty Guide/Owner Information Guide* to find out which parts and services are covered.

Use only recommended fuels, lubricants, fluids and service parts conforming to specifications. Motorcraft parts are designed and built to provide the best performance in your vehicle.

PRECAUTIONS WHEN SERVICING YOUR VEHICLE

- Do not work on a hot engine.
- Make sure that nothing gets caught in moving parts.
- Do not work on a vehicle with the engine running in an enclosed space, unless you are sure you have enough ventilation.
- Keep all open flames and other lit material away from the battery and all fuel related parts.

Working with the engine off

- Automatic transmission:
 1. Set the parking brake and shift to P (Park).
 2. Turn off the engine and remove the key.
 3. Block the wheels.
- Manual transmission:
 1. Set the parking brake, depress the clutch and place the gearshift in 1 (First).
 2. Turn off the engine and remove the key.
 3. Block the wheels.

Working with the engine on

- Automatic transmission:
 1. Set the parking brake and shift to P (Park).
 2. Block the wheels.

Maintenance and Specifications

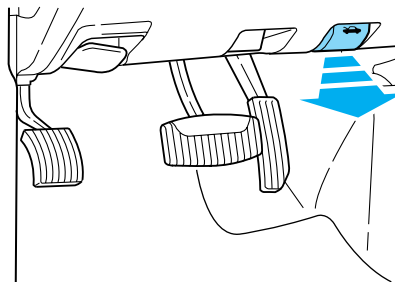
- Manual transmission:

1. Set the parking brake, depress the clutch and place the gearshift in N (Neutral).
2. Block the wheels.

Note: Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

OPENING THE HOOD

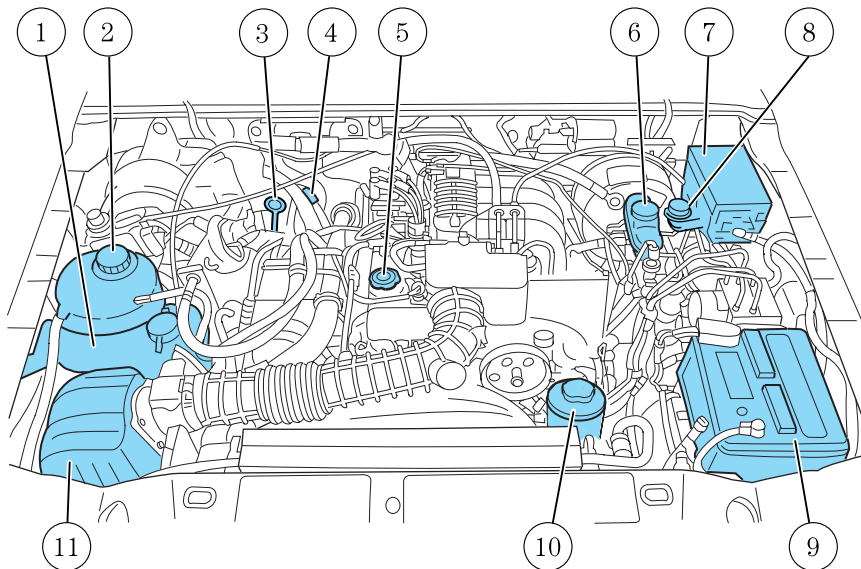
1. Inside the vehicle, pull the hood release handle located under the bottom of the instrument panel near the steering column.
2. Go to the front of the vehicle and release the auxiliary latch that is located under the front center of the hood.
3. Lift the hood and support it with the prop rod.



Maintenance and Specifications

IDENTIFYING COMPONENTS IN THE ENGINE COMPARTMENT

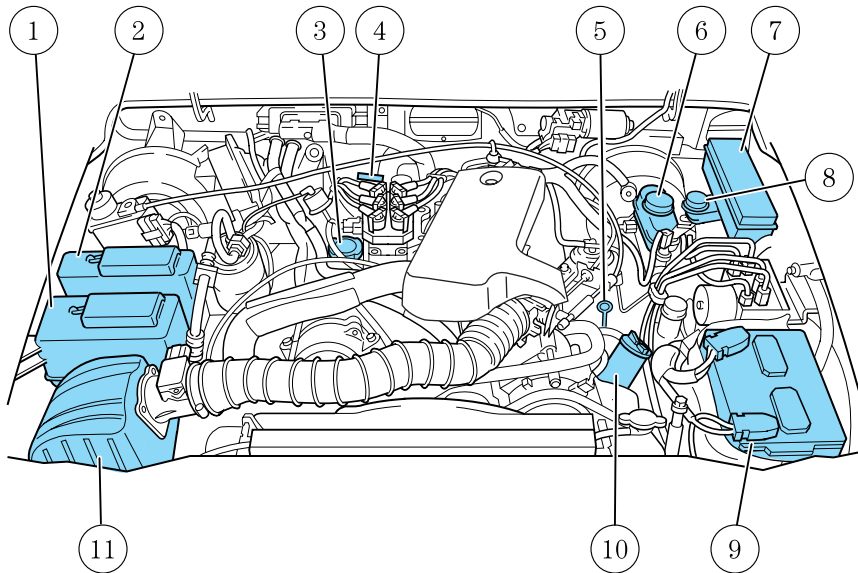
2.3L I4 engine



1. Windshield washer fluid reservoir
2. Engine coolant reservoir
3. Engine oil dipstick
4. Transmission fluid dipstick (automatic transmission)
5. Engine oil filler cap
6. Brake fluid reservoir
7. Power distribution box
8. Clutch fluid reservoir (manual transmission)
9. Battery
10. Power steering fluid reservoir
11. Air filter assembly

Maintenance and Specifications

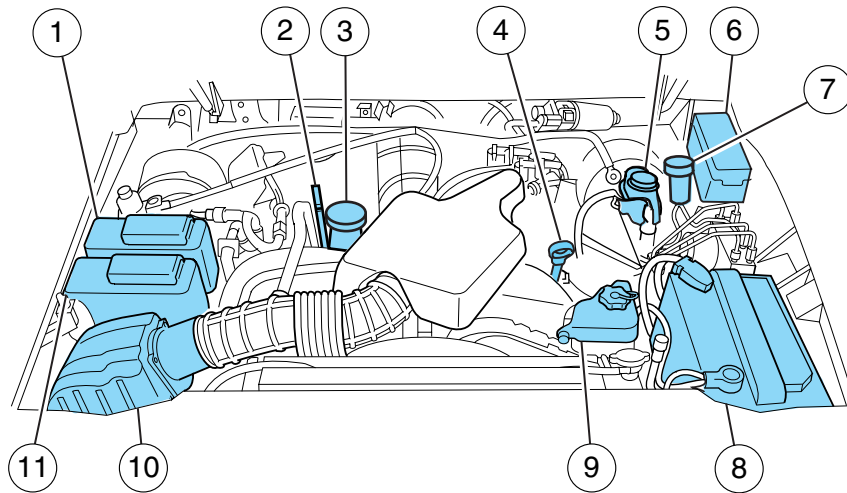
3.0L V6 engine



1. Engine coolant reservoir
2. Windshield washer fluid reservoir
3. Engine oil filler cap
4. Automatic transmission fluid dipstick (if equipped)
5. Engine oil dipstick
6. Brake fluid reservoir
7. Power distribution box
8. Clutch fluid reservoir (if equipped)
9. Battery
10. Power steering fluid reservoir
11. Air filter assembly

Maintenance and Specifications

4.0L SOHC V6 engine

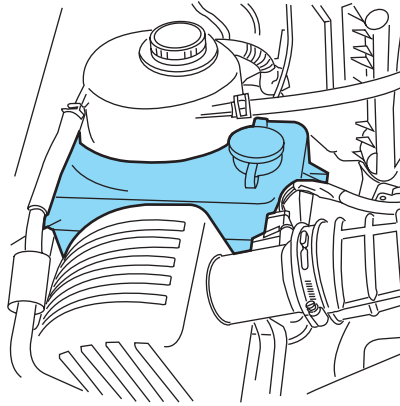


1. Windshield washer fluid reservoir
2. Automatic transmission fluid dipstick (if equipped)
3. Engine oil filler cap
4. Engine oil dipstick
5. Brake fluid reservoir
6. Power distribution box
7. Clutch fluid reservoir (if equipped)
8. Battery
9. Power steering fluid reservoir
10. Air filter assembly
11. Engine coolant reservoir

Maintenance and Specifications

WINDSHIELD WASHER FLUID

- 2.3L engine

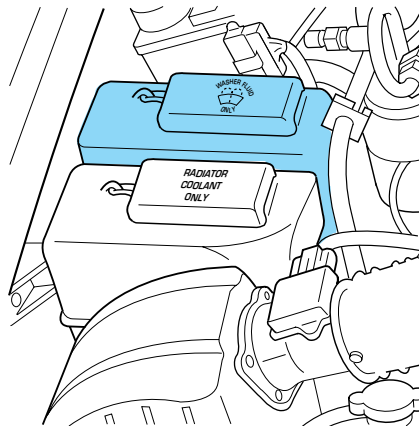


- 3.0L and 4.0L engines

Add fluid to fill the reservoir if the level is low. In very cold weather, do not fill the reservoir completely.

Only use a washer fluid that meets Ford specification WSB-M8B16-A2. Refer to *Lubricant specifications* in this chapter.

State or local regulations on volatile organic compounds may restrict the use of methanol, a common windshield washer antifreeze additive. Washer fluids containing non-methanol antifreeze agents should be used only if they provide cold weather protection without damaging the vehicle's paint finish, wiper blades or washer system.



If you operate your vehicle in temperatures below 40° F (4.5°C), use washer fluid with antifreeze protection. Failure to use washer fluid with antifreeze protection in cold weather could result in impaired windshield vision and increase the risk of injury or accident.

Maintenance and Specifications

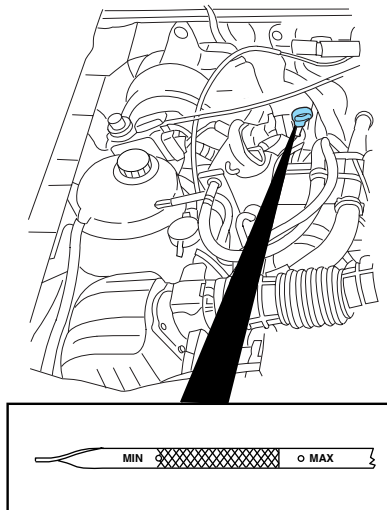
Note: Do not put washer fluid in the engine coolant reservoir. Washer fluid placed in the cooling system may harm engine and cooling system components.

ENGINE OIL

Checking the engine oil

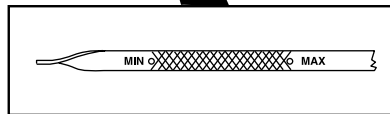
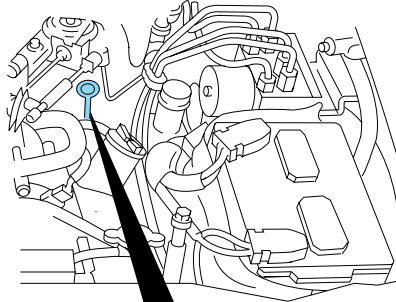
Refer to the scheduled maintenance guide for the appropriate intervals for checking the engine oil.

1. Make sure the vehicle is on level ground.
 2. Turn the engine off and wait a few minutes for the oil to drain into the oil pan.
 3. Set the parking brake and ensure the gearshift is securely latched in P (Park) (automatic transmission) or 1 (First) (manual transmission).
 4. Open the hood. Protect yourself from engine heat.
 5. Locate and carefully remove the engine oil level indicator (dipstick).
- 2.3L I4 engine

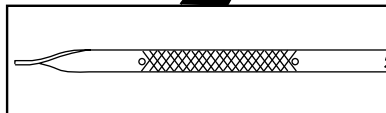
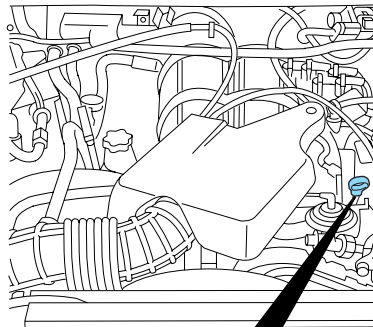


Maintenance and Specifications

- 3.0L V6 engine



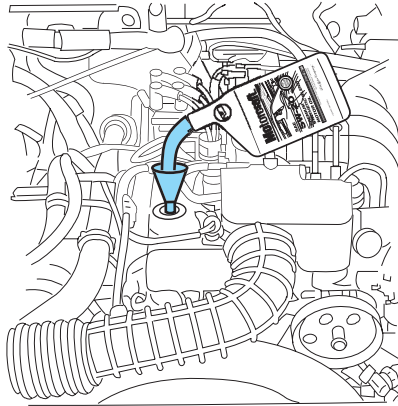
- 4.0L SOHC V6 engine



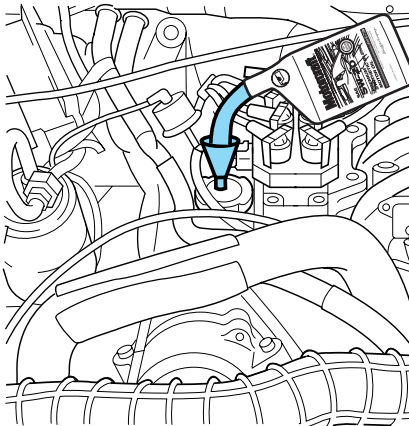
Maintenance and Specifications

6. Wipe the indicator clean. Insert the indicator fully, then remove it again.

- If the oil level is **between the MIN and MAX marks**, the oil level is acceptable, **DO NOT ADD OIL**.
- If the oil level is below the MIN mark, add enough oil to raise the level within the MIN-MAX range.
- 2.3L I4 engine

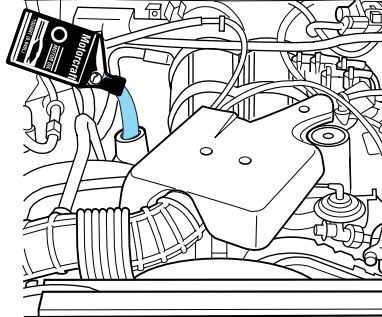


- 3.0L V6 engine



Maintenance and Specifications

- 4.0L SOHC V6 engine



- Oil levels above the MAX mark may cause engine damage. Some oil must be removed from the engine by a service technician.

7. Put the indicator back in and ensure it is fully seated.

Adding engine oil

1. Check the engine oil. For instructions, refer to *Checking the engine oil* in this chapter.
2. If the engine oil level is not within the normal range, add only certified engine oil of the recommended viscosity. Remove the engine oil filler cap and use a funnel to pour the engine oil into the opening.
3. Recheck the engine oil level. Make sure the oil level is not above the MAX mark or the letter F in FULL on the engine oil level indicator (dipstick).
4. Install the indicator and ensure it is fully seated.
5. Fully install the engine oil filler cap by turning the filler cap 1/4 turn until it stops.

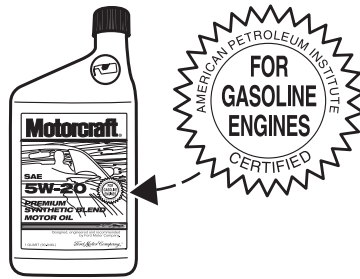
To avoid possible oil loss, DO NOT operate the vehicle with the engine oil level indicator and/or the engine oil filler cap removed.

Maintenance and Specifications

Engine Oil Recommendations

2.3L & 3.0L Engines

Look for this certification trademark.



Use SAE 5W-20 engine oil.

Only use oils “Certified For Gasoline Engines” by the American Petroleum Institute (API). An oil with this trademark symbol conforms to the current engine and emission system protection standards and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ISLAC), comprised of U.S. and Japanese automobile manufacturers.

To protect your engine’s warranty use Motorcraft SAE 5W-20 or an equivalent 5W-20 oil meeting Ford specification WSS-M2C930-A. **SAE 5W-20 oil provides optimum fuel economy and durability performance meeting all requirements for your vehicle’s engine.**

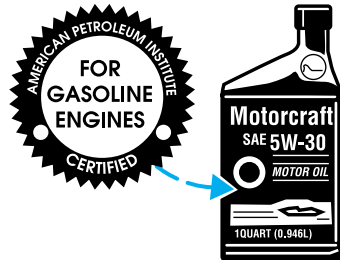
Do not use supplemental engine oil additives, cleaners or other engine treatments. They are unnecessary and could lead to engine damage that is not covered by Ford warranty.

Change your engine oil according to the appropriate schedule listed in the scheduled maintenance guide.

Maintenance and Specifications

4.0L Engine

Look for this certification trademark.



Use SAE 5W-30 engine oil.

Only use oils “Certified For Gasoline Engines” by the American Petroleum Institute (API). An oil with this trademark symbol conforms to the current engine and emission system protection standards and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ILSAC), comprised of U.S. and Japanese automobile manufacturers.

To protect your engine’s warranty use Motorcraft SAE 5W-30 or an equivalent 5W-30 oil meeting Ford specification WSS-M2C929-A.

Do not use supplemental engine oil additives, cleaners or other engine treatments. They are unnecessary and could lead to engine damage that is not covered by Ford warranty.

Change your engine oil according to the appropriate schedule listed in the scheduled maintenance guide.

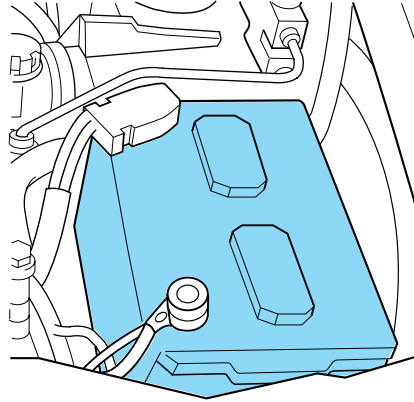
Ford production and aftermarket (Motorcraft) oil filters are designed for added engine protection and long life. If a replacement oil filter is used that does not meet Ford material and design specifications, start-up engine noises or knock may be experienced.

It is recommended you use the appropriate Motorcraft oil filter (or another brand meeting Ford specifications) for your engine application.

Maintenance and Specifications

BATTERY

Your vehicle is equipped with a Motorcraft maintenance-free battery which normally does not require additional water during its life of service.



However, for severe usage or in high temperature climates, check the battery electrolyte level. Refer to the *Scheduled Maintenance Guide* for the service interval schedules.

Keep the electrolyte level in each cell up to the “level indicator”. Do not overfill the battery cells.

If the electrolyte level in the battery is low, you can add plain tap water to the battery, as long as you do not use hard water (water with a high mineral or alkali content). If possible, however, try to only fill the battery cells with distilled water. If the battery needs water often, have the charging system checked.

If your battery has a cover/shield, make sure it is reinstalled after the battery has been cleaned or replaced.

For longer, trouble-free operation, keep the top of the battery clean and dry. Also, make certain the battery cables are always tightly fastened to the battery terminals.

If you see any corrosion on the battery or terminals, remove the cables from the terminals and clean with a wire brush. You can neutralize the acid with a solution of baking soda and water.



Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lighted substances to come near the battery. When working near the battery, always shield your face and protect your eyes. Always provide proper ventilation.

Maintenance and Specifications



When lifting a plastic-cased battery, excessive pressure on the end walls could cause acid to flow through the vent caps, resulting in personal injury and/or damage to the vehicle or battery. Lift the battery with a battery carrier or with your hands on opposite corners.



Keep batteries out of reach of children. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.



Battery posts, terminals and related accessories contain lead and lead compounds. **Wash hands after handling.**

Because your vehicle's engine is electronically controlled by a computer, some control conditions are maintained by power from the battery. When the battery is disconnected or a new battery is installed, the engine must relearn its idle and fuel trim strategy for optimum driveability and performance. To begin this process:

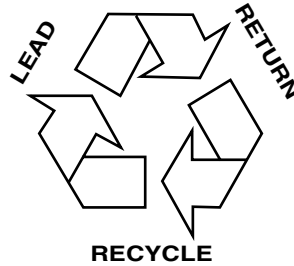
1. With the vehicle at a complete stop, set the parking brake.
 2. Put the gearshift lever in P (Park), turn off all accessories and start the engine.
 3. Run the engine until it reaches normal operating temperature.
 4. Allow the engine to idle for at least one minute.
 5. Turn the A/C on and allow the engine to idle for at least one minute.
 6. Drive the vehicle to complete the relearning process.
- The vehicle may need to be driven to relearn the idle and fuel trim strategy.
 - **If you do not allow the engine to relearn its idle trim, the idle quality of your vehicle may be adversely affected until the idle trim is eventually relearned.**

When the battery is disconnected or a new battery installed, the transmission must relearn its adaptive strategy. As a result of this, the transmission may shift firmly. This operation is considered normal and will not affect function or durability of the transmission. Over time the adaptive learning process will fully update transmission operation to its optimum shift feel.

Maintenance and Specifications

If the battery has been disconnected or a new battery has been installed, the clock and the preset radio stations must be reset once the battery is reconnected.

- Always dispose of automotive batteries in a responsible manner. Follow your local authorized standards for disposal. Call your local authorized recycling center to find out more about recycling automotive batteries.



ENGINE COOLANT

Checking engine coolant

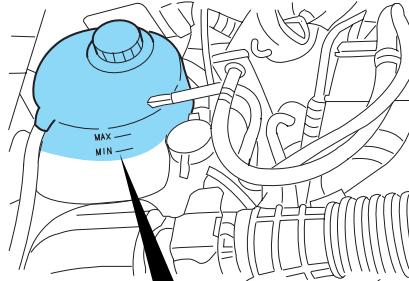
The concentration and level of engine coolant should be checked at the mileage intervals listed in the *Scheduled Maintenance Guide*. The coolant concentration should be maintained at 50/50 coolant and distilled water, which equates to a freeze point of -34°F (-36°C). Coolant concentration testing is possible with a hydrometer or antifreeze tester (such as the Rotunda Battery and Antifreeze Tester, 014-R1060). The level of coolant should be maintained at the "FULL COLD" level or within the "COLD FILL RANGE" in the coolant reservoir. If the level falls below, add coolant per the instructions in the *Adding engine coolant* section.

Your vehicle was factory-filled with a 50/50 engine coolant and water concentration. If the concentration of coolant falls below 40% or above 60%, the engine parts could become damaged or not work properly. **A 50-50 mixture of coolant and water provides the following:**

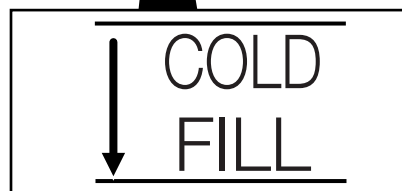
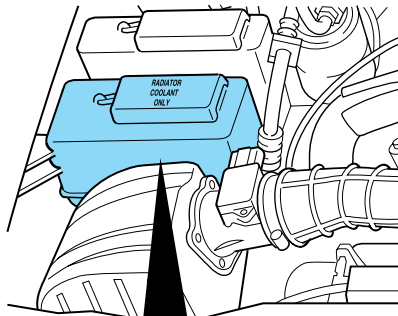
- **Freeze protection down to -34°F (-36°C).**
- **Boiling protection up to 265°F (129°C).**
- **Protection against rust and other forms of corrosion.**
- **Enables calibrated gauges to work properly.**

Maintenance and Specifications

- 2.3L engines



- 3.0L and 4.0L engines



Maintenance and Specifications

When the engine is cold, check the level of the engine coolant in the reservoir.

- The engine coolant should be at the “FULL COLD” level or within the “COLD FILL RANGE” as listed on the engine coolant reservoir (depending upon application).
- Refer to the *Scheduled Maintenance Guide* for service interval schedules.
- Be sure to read and understand *Precautions when servicing your vehicle* in this chapter.

If the engine coolant has not been checked at the recommended interval, the engine coolant reservoir may become low or empty. If the reservoir is low or empty, add engine coolant to the reservoir. Refer to *Adding engine coolant* in this chapter.

Note: Automotive fluids are not interchangeable; do not use engine coolant, antifreeze or windshield washer fluid outside of its specified function and vehicle location.

Adding engine coolant

When adding coolant, make sure it is a 50/50 mixture of engine coolant and distilled water. Add the mixture to the coolant reservoir, **when the engine is cool**, until the appropriate fill level is obtained.



Do not add engine coolant when the engine is hot. Steam and scalding liquids released from a hot cooling system can burn you badly. Also, you can be burned if you spill coolant on hot engine parts.



Do not put engine coolant in the windshield washer fluid container. If sprayed on the windshield, engine coolant could make it difficult to see through the windshield.

- **Add Motorcraft Premium Gold Engine Coolant (yellow-colored), VC-7-A (U.S., except CA and OR), VC-7-B (CA and OR only), meeting Ford Specification WSS-M97B51-A1.**

Note: Use of Motorcraft Cooling System Stop Leak Pellets, VC-6, may darken the color of Motorcraft Premium Gold Engine Coolant from yellow to golden tan.

Maintenance and Specifications

- **Do not add/mix an orange-colored, extended life coolant such as Motorcraft Speciality Orange Engine Coolant, VC-2 (US) or CXC-209 (Canada), meeting Ford specification WSS-M97B44-D with the factory-filled coolant.** Mixing Motorcraft Speciality Orange Engine Coolant or any orange-colored extended life product with your factory filled coolant can result in degraded corrosion protection.
- A large amount of water without engine coolant may be added, in case of emergency, to reach a vehicle service location. In this instance, the cooling system must be drained and refilled with a 50/50 mixture of engine coolant and distilled water as soon as possible. Water alone (without engine coolant) can cause engine damage from corrosion, overheating or freezing.
- **Do not use alcohol, methanol, brine or any engine coolants mixed with alcohol or methanol antifreeze (coolant).** Alcohol and other liquids can cause engine damage from overheating or freezing.
- **Do not add extra inhibitors or additives to the coolant.** These can be harmful and compromise the corrosion protection of the engine coolant.

For vehicles with overflow coolant systems with a non-pressurized cap on the coolant recovery system, add coolant to the coolant recovery reservoir when the engine is cool. Add the proper mixture of coolant and water to the "FULL COLD" level. For all other vehicles, which have a coolant degas system with a pressurized cap, or if it is necessary to remove the coolant pressure relief cap on the radiator of a vehicle with an overflow system, follow these steps to add engine coolant.

Note: The 3.0L and 4.0L V6 engines use the overflow system, and the 2.3L I4 engines use the degas system.



To reduce the risk of personal injury, make sure the engine is cool before unscrewing the coolant pressure relief cap. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly.

1. Before you begin, turn the engine off and let it cool.
2. When the engine is cool, wrap a thick cloth around the coolant pressure relief cap on the coolant reservoir (a translucent plastic bottle). Slowly turn cap counterclockwise (left) until pressure begins to release.
3. Step back while the pressure releases.

Maintenance and Specifications

4. When you are sure that all the pressure has been released, use the cloth to turn it counterclockwise and remove the cap.
5. Fill the coolant reservoir slowly with the proper coolant mixture (see above), to within the “COLD FILL RANGE” or the “FULL COLD” level on the reservoir. If you removed the radiator cap in an overflow system, fill the radiator until the coolant is visible and radiator is almost full.
6. Replace the cap. Turn until tightly installed. (Cap must be tightly installed to prevent coolant loss.)

After any coolant has been added, check the coolant concentration, refer to *Checking engine coolant*. If the concentration is not 50/50 (protection to $-34^{\circ}\text{F}/-36^{\circ}\text{C}$), drain some coolant and adjust the concentration. It may take several drains and additions to obtain a 50/50 coolant concentration.

Whenever coolant has been added, the coolant level in the coolant reservoir should be checked the next few times you drive the vehicle. If necessary, add enough 50/50 concentration of engine coolant and distilled water to bring the liquid level to the proper level.

If you have to add more than 1.0 liter (1.0 quart) of engine coolant per month, have your dealer check the engine cooling system. Your cooling system may have a leak. Operating an engine with a low level of coolant can result in engine overheating and possible engine damage.

Recycled engine coolant

Ford Motor Company does NOT recommend the use of recycled engine coolant in vehicles originally equipped with Motorcraft Premium Gold Engine Coolant since a Ford-approved recycling process is not yet available.



Used engine coolant should be disposed of in an appropriate manner. Follow your community's regulations and standards for recycling and disposing of automotive fluids.

Coolant refill capacity

To find out how much fluid your vehicle's cooling system can hold, refer to *Refill capacities* in this section.

Fill your engine coolant reservoir as outlined in *Adding engine coolant* in this section.

Maintenance and Specifications

Severe climates

If you drive in extremely cold climates (less than -34° F [-36° C]):

- **It may be necessary to increase the coolant concentration above 50%.**
- **NEVER increase the coolant concentration above 60%.**
- **Increased engine coolant concentrations above 60% will decrease the overheat protection characteristics of the engine coolant and may cause engine damage.**
- **Refer to the chart on the coolant container to ensure the coolant concentration in your vehicle will provide adequate freeze protection at the temperatures in which you drive in the winter months.**

If you drive in extremely hot climates:

- **It is still necessary to maintain the coolant concentration above 40%.**
- **NEVER decrease the coolant concentration below 40%.**
- **Decreased engine coolant concentrations below 40% will decrease the corrosion protection characteristics of the engine coolant and may cause engine damage.**
- **Decreased engine coolant concentrations below 40% will decrease the freeze protection characteristics of the engine coolant and may cause engine damage.**
- **Refer to the chart on the coolant container to ensure the coolant concentration in your vehicle will provide adequate protection at the temperatures in which you drive.**

Vehicles driven year-round in non-extreme climates should use a 50/50 mixture of engine coolant and distilled water for optimum cooling system and engine protection.

What you should know about fail-safe cooling (2.3L I4 engine only)

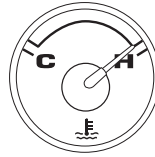
If the engine coolant supply is depleted, this feature allows the vehicle to be driven temporarily before incremental component damage is incurred. The “fail-safe” distance depends on ambient temperatures, vehicle load and terrain.

Maintenance and Specifications

How fail-safe cooling works

If the engine begins to overheat:

- The engine coolant temperature gauge will move to the red (hot) area.
- The  symbol will illuminate.
- The *Check engine* indicator light will illuminate.



If the engine reaches a preset over-temperature condition, the engine will automatically switch to alternating cylinder operation. Each disabled cylinder acts as an air pump and cools the engine.

When this occurs the vehicle will still operate. However:

- The engine power will be limited.
- The air conditioning system will be disabled.

Continued operation will increase the engine temperature:

- The engine will completely shut down.
- Steering and braking effort will increase.

Once the engine temperature cools, the engine can be re-started. Take your vehicle to a service facility as soon as possible to minimize engine damage.

When fail-safe mode is activated

You have limited engine power when in the fail-safe mode, so drive the vehicle with caution. The vehicle will not be able to maintain high speed operation and the engine will run rough. Remember that the engine is capable of completely shutting down automatically to prevent engine damage, therefore:

1. Pull off the road as soon as safely possible and turn off the engine.
2. Arrange for the vehicle to be taken to a service facility.
3. If this is not possible, wait a short period for the engine to cool.
4. Check the coolant level and replenish if low.



Never remove the coolant reservoir cap while the engine is running or hot.

5. Restart the engine and take your vehicle to a service facility.

Maintenance and Specifications

Driving the vehicle without repairing the engine problem increases the chance of engine damage. Take your vehicle to a service facility as soon as possible.

WHAT YOU SHOULD KNOW ABOUT AUTOMOTIVE FUELS

Important safety precautions



Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.



The fuel system may be under pressure. If the fuel filler cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the fuel filler cap. Otherwise, fuel may spray out and injure you or others.



If you do not use the proper fuel filler cap, excessive pressure or vacuum in the fuel tank may damage the fuel system or cause the fuel cap to disengage in a collision, which may result in possible personal injury.



Automotive fuels can cause serious injury or death if misused or mishandled.



Gasoline may contain benzene, which is a cancer-causing agent.

Observe the following guidelines when handling automotive fuel:

- Extinguish all smoking materials and any open flames before fueling your vehicle.
- Always turn off the vehicle before fueling.
- Automotive fuels can be harmful or fatal if swallowed. Fuel such as gasoline is highly toxic and if swallowed can cause death or permanent injury. If fuel is swallowed, call a physician immediately, even if no symptoms are immediately apparent. The toxic effects of fuel may not be visible for hours.



Maintenance and Specifications

- Avoid inhaling fuel vapors. Inhaling too much fuel vapor of any kind can lead to eye and respiratory tract irritation. In severe cases, excessive or prolonged breathing of fuel vapor can cause serious illness and permanent injury.
- Avoid getting fuel liquid in your eyes. If fuel is splashed in the eyes, remove contact lenses (if worn), flush with water for 15 minutes and seek medical attention. Failure to seek proper medical attention could lead to permanent injury.
- Fuels can also be harmful if absorbed through the skin. If fuel is splashed on the skin and/or clothing, promptly remove contaminated clothing and wash skin thoroughly with soap and water. Repeated or prolonged skin contact with fuel liquid or vapor causes skin irritation.
- Be particularly careful if you are taking “Antabuse” or other forms of disulfiram for the treatment of alcoholism. Breathing gasoline vapors, or skin contact could cause an adverse reaction. In sensitive individuals, serious personal injury or sickness may result. If fuel is splashed on the skin, promptly wash skin thoroughly with soap and water. Consult a physician immediately if you experience an adverse reaction.



When refueling always shut the engine off and never allow sparks or open flames near the filler neck. Never smoke while refueling. Fuel vapor is extremely hazardous under certain conditions. Care should be taken to avoid inhaling excess fumes.



The flow of fuel through a fuel pump nozzle can produce static electricity, which can cause a fire if fuel is pumped into an ungrounded fuel container.

Use the following guidelines to avoid static build-up when filling an ungrounded fuel container:

- Place approved fuel container on the ground.
- DO NOT fill a fuel container while it is in the vehicle (including the cargo area).
- Keep the fuel pump nozzle in contact with the fuel container while filling.
- DO NOT use a device that would hold the fuel pump handle in the fill position.

Maintenance and Specifications

Fuel Filler Cap

Your vehicle is equipped with a 1/4 turn fuel filler cap, which requires the handle to be rotated 1/4 of a turn for removal or installation.

When fueling your vehicle:

1. Turn the engine off.
2. Carefully turn the fuel filler cap counterclockwise 1/4 of a turn until it releases from the fuel filler pipe.
3. Carefully hang the cap from the tether.
4. To install the cap, place the cap into the filler pipe and rotate until you hear at least 3 “clicks”.

If the “Check Fuel Cap” or the “Check Engine” indicator comes on and stays on when you start the engine, the fuel filler cap may not be properly installed. Turn off the engine, remove the fuel filler cap and reinstall. When the fuel filler cap is properly re-installed, the light(s) will turn off after a period of normal driving. **It may take a long period of time for the system to detect an improperly installed fuel filler cap.**

If you must replace the fuel filler cap, replace it with a fuel filler cap that is designed for your vehicle. The customer warranty may be void for any damage to the fuel tank or fuel system if the correct genuine Ford or Motorcraft fuel filler cap is not used.



The fuel system may be under pressure. If the fuel filler cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the fuel filler cap. Otherwise, fuel may spray out and injure you or others.



If you do not use the proper fuel filler cap, excessive pressure or vacuum in the fuel tank may damage the fuel system or cause the fuel cap to disengage in a collision, which may result in possible personal injury.

Choosing the right fuel

Use only UNLEADED FUEL. The use of leaded fuel is prohibited by law and could damage your vehicle.

Your vehicle was not designed to use fuel or fuel additives with metallic compounds, including manganese-based additives. Studies indicate that

Maintenance and Specifications

these additives can cause your vehicle's emission control system to deteriorate more rapidly. In Canada, premium grade fuel generally contains more metallic additives than regular fuel. We recommend using regular grade fuel. In Canada, many fuels contain metallic additives, but fuels free of such additives may be available; check with your local fuel dealer.

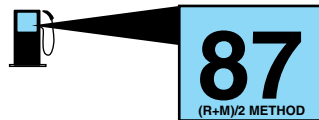
Do not use fuel containing methanol. It can damage critical fuel system components.

Repairs to correct the effects of using a fuel for which your vehicle was not designed may not be covered by your warranty.

Octane recommendations

Your vehicle is designed to use "Regular" unleaded gasoline with pump (R+M)/2 octane rating of 87.

We do not recommend the use of gasolines labeled as "Regular" that are sold with octane ratings of 86 or lower in high altitude areas.



Do not be concerned if your engine sometimes knocks lightly. However, if it knocks heavily under most driving conditions while you are using fuel with the recommended octane rating, see your dealer or a qualified service technician to prevent any engine damage.

Fuel quality

If you are experiencing starting, rough idle or hesitation driveability problems, try a different brand of unleaded gasoline. "Premium" unleaded gasoline is not recommended for vehicles designed to use "Regular" unleaded gasoline because it may cause these problems to become more pronounced. If the problems persist, see your dealer or a qualified service technician.

It should not be necessary to add any aftermarket products to your fuel tank if you continue to use high quality fuel of the recommended octane rating. Aftermarket products could cause damage to the fuel system. Repairs to correct the effects of using an aftermarket product in your fuel may not be covered by your warranty.

Many of the world's automakers approved the World-wide Fuel Charter that recommends gasoline specifications to provide improved performance and emission control system protection for your vehicle. Gasolines that meet the World-wide Fuel Charter should be used when available. Ask your fuel supplier about gasolines that meet the World-wide Fuel Charter.

Maintenance and Specifications

Cleaner air

Ford endorses the use of reformulated “cleaner-burning” gasolines to improve air quality.

Running out of fuel

Avoid running out of fuel because this situation may have an adverse affect on powertrain components.

If you have run out of fuel:

- You may need to cycle the ignition from OFF to ON several times after refueling, to allow the fuel system to pump the fuel from the tank to the engine.
- Your “Check Engine” indicator may come on. For more information on the “Check Engine” indicator, refer to the *Instrument Cluster* chapter.

Fuel Filter

For fuel filter replacement, see your dealer or a qualified service technician. Refer to the scheduled maintenance guide for the appropriate intervals for changing the fuel filter.

Replace the fuel filter with an authorized Motorcraft part. The customer warranty may be void for any damage to the fuel system if an authorized Motorcraft fuel filter is not used.

ESSENTIALS OF GOOD FUEL ECONOMY

Measuring techniques

Your best source of information about actual fuel economy is you, the driver. You must gather information as accurately and consistently as possible. Fuel expense, frequency of fill-ups or fuel gauge readings are NOT accurate as a measure of fuel economy. We do not recommend taking fuel economy measurements during the first 1,000 miles (1,600 km) of driving (engine break-in period). You will get a more accurate measurement after 2,000 miles-3,000 miles (3,000 km–5,000 km).

Filling the tank

The advertised fuel capacity of the fuel tank on your vehicle is equal to the rated refill capacity of the fuel tank as listed in the *Refill capacities* section of this chapter.

Maintenance and Specifications

The advertised capacity is the amount of the indicated capacity and the empty reserve combined. Indicated capacity is the difference in the amount of fuel in a full tank and a tank when the fuel gauge indicates empty. Empty reserve is the small amount of fuel remaining in the fuel tank after the fuel gauge indicates empty.

The amount of usable fuel in the empty reserve varies and should not be relied upon to increase driving range. When refueling your vehicle after the fuel gauge indicates empty, you might not be able to refuel the full amount of the advertised capacity of the fuel tank due to the empty reserve still present in the tank.

For consistent results when filling the fuel tank:

- Turn the engine/ignition switch to the off position prior to refueling, an error in the reading will result if the engine is left running.
- Use the same filling rate setting (low — medium — high) each time the tank is filled.
- Allow no more than 2 automatic click-offs when filling.
- Always use fuel with the recommended octane rating.
- Use a known quality gasoline, preferably a national brand.
- Use the same side of the same pump and have the vehicle facing the same direction each time you fill up.
- Have the vehicle loading and distribution the same every time.

Your results will be most accurate if your filling method is consistent.

Calculating fuel economy

1. Fill the fuel tank completely and record the initial odometer reading (in miles or kilometers).
2. Each time you fill the tank, record the amount of fuel added (in gallons or liters).
3. After at least three to five tank fill-ups, fill the fuel tank and record the current odometer reading.
4. Subtract your initial odometer reading from the current odometer reading.
5. Follow one of the simple calculations in order to determine fuel economy:

Calculation 1: **Divide total miles traveled by total gallons used.**

Calculation 2: **Multiply liters used by 100, then divide by total kilometers traveled.**

Maintenance and Specifications

Keep a record for at least one month and record the type of driving (city or highway). This will provide an accurate estimate of the vehicle's fuel economy under current driving conditions. Additionally, keeping records during summer and winter will show how temperature impacts fuel economy. In general, lower temperatures give lower fuel economy.

Driving style — good driving and fuel economy habits

Give consideration to the lists that follow and you may be able to change a number of variables and improve your fuel economy.

Habits

- Smooth, moderate operation can yield up to 10% savings in fuel.
- Steady speeds without stopping will usually give the best fuel economy.
- Idling for long periods of time (greater than one minute) may waste fuel.
- Anticipate stopping; slowing down may eliminate the need to stop.
- Sudden or hard accelerations may reduce fuel economy.
- Slow down gradually.
- Driving at reasonable speeds (traveling at 55 mph [88 km/h] uses 15% less fuel than traveling at 65 mph [105 km/h]).
- Revving the engine before turning it off may reduce fuel economy.
- Using the air conditioner or defroster may reduce fuel economy.
- You may want to turn off the speed control in hilly terrain if unnecessary shifting between third and fourth gear occurs. Unnecessary shifting of this type could result in reduced fuel economy.
- Warming up a vehicle on cold mornings is not required and may reduce fuel economy.
- Resting your foot on the brake pedal while driving may reduce fuel economy.
- Combine errands and minimize stop-and-go driving.

Maintenance

- Keep tires properly inflated and use only recommended size.
- Operating a vehicle with the wheels out of alignment will reduce fuel economy.
- Use recommended engine oil. Refer to *Lubricant specifications* in this chapter.

Maintenance and Specifications

- Perform all regularly scheduled maintenance items. Follow the recommended maintenance schedule and owner maintenance checks found in your vehicle scheduled maintenance guide.

Conditions

- Heavily loading a vehicle or towing a trailer may reduce fuel economy at any speed.
- Carrying unnecessary weight may reduce fuel economy (approximately 1 mpg [0.4 km/L] is lost for every 400 lb [180 kg] of weight carried).
- Adding certain accessories to your vehicle (for example bug deflectors, rollbars/light bars, running boards, ski/luggage racks) may reduce fuel economy.
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures during the first 8–10 miles (12–16 km) of driving.
- Driving on flat terrain offers improved fuel economy as compared to driving on hilly terrain.
- Transmissions give their best fuel economy when operated in the top cruise gear and with steady pressure on the gas pedal.
- Four-wheel-drive operation (if equipped) is less fuel efficient than two-wheel-drive operation.
- Close windows for high speed driving.

EPA window sticker

Every new vehicle should have the EPA window sticker. Contact your dealer if the window sticker is not supplied with your vehicle. The EPA window sticker should be your guide for the fuel economy comparisons with other vehicles.

It is important to note the box in the lower left corner of the window sticker. These numbers represent the Range of MPG (L/100 km) expected on the vehicle under optimum conditions. Your fuel economy may vary depending upon the method of operation and conditions.

EMISSION CONTROL SYSTEM

Your vehicle is equipped with various emission control components and a catalytic converter which will enable your vehicle to comply with applicable exhaust emission standards. To make sure that the catalytic converter and other emission control components continue to work properly:

Maintenance and Specifications

- Use only the specified fuel listed.
- Avoid running out of fuel.
- Do not turn off the ignition while your vehicle is moving, especially at high speeds.
- Have the items listed in your *Scheduled Maintenance Guide* performed according to the specified schedule.

The scheduled maintenance items listed in the *Scheduled Maintenance Guide* are essential to the life and performance of your vehicle and to its emissions system.

If other than Ford, Motorcraft or Ford-authorized parts are used for maintenance replacements or for service of components affecting emission control, such non-Ford parts should be equivalent to genuine Ford Motor Company parts in performance and durability.



Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

Illumination of the “Check Engine” light, charging system warning light or the temperature warning light, fluid leaks, strange odors, smoke or loss of engine power, could indicate that the emission control system is not working properly.



Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment.

Do not make any unauthorized changes to your vehicle or engine. By law, vehicle owners and anyone who manufactures, repairs, services, sells, leases, trades vehicles, or supervises a fleet of vehicles are not permitted to intentionally remove an emission control device or prevent it from working. Information about your vehicle's emission system is on the Vehicle Emission Control Information Decal located on or near the engine. This decal identifies engine displacement and gives some tune up specifications.

Please consult your *Warranty Guide* for complete emission warranty information.

On board diagnostics (OBD-II)

Your vehicle is equipped with a computer that monitors the engine's emission control system. This system is commonly known as the On

Maintenance and Specifications

Board Diagnostics System (OBD-II). This OBD-II system protects the environment by ensuring that your vehicle continues to meet government emission standards. The OBD-II system also assists the service technician in properly servicing your vehicle. When the *Check engine* light illuminates, the OBD-II system has detected a malfunction. Temporary malfunctions may cause your *Check engine* light to illuminate. Examples are:

1. The vehicle has run out of fuel. (The engine may misfire or run poorly.)
2. Poor fuel quality or water in the fuel.
3. The fuel cap may not have been securely tightened. In which case, the fuel filler cap light will also be illuminated.

These temporary malfunctions can be corrected by filling the fuel tank with good quality fuel and/or properly tightening the fuel cap. After three driving cycles without these or any other temporary malfunctions present, the *Check engine* light should turn off. (A driving cycle consists of a cold engine startup followed by mixed city/highway driving.) No additional vehicle service is required.

If the *Check engine* light remains on, have your vehicle serviced at the first available opportunity.

Readiness for Inspection/Maintenance (I/M) testing

In some localities, it may be a legal requirement to pass an I/M test of the on-board diagnostics system. If your *Check engine/Service engine soon* light is on, refer to the description in the *Warning lights and chimes* section of the *Instrument Cluster* chapter. Your vehicle may not pass the I/M test with the *Check engine/Service engine soon* light on.

If the vehicle's powertrain system or its battery has just been serviced, the on-board diagnostics system is reset to a "not ready for I/M test" condition. To ready the on-board diagnostics system for I/M testing, a minimum of 30 minutes of city and highway driving is necessary as described below:

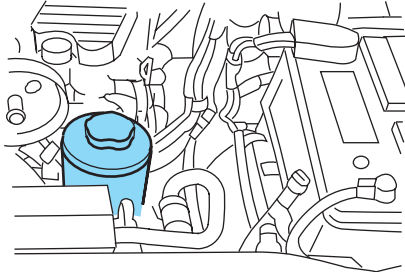
- First, at least 10 minutes of driving on an expressway or highway.
- Next, at least 20 minutes driving in stop-and-go, city-type traffic with at least four idle periods.

Allow the vehicle to sit for at least eight hours without starting the engine. Then, start the engine and complete the above driving cycle. The engine must warm up to its normal operating temperature. Once started, do not turn off the engine until the above driving cycle is complete.

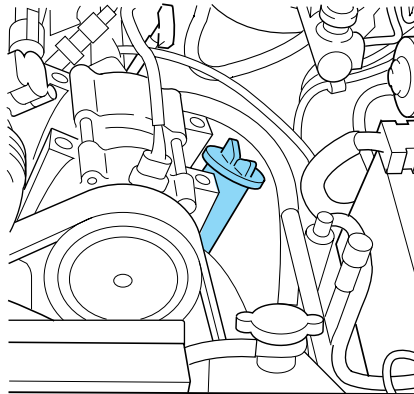
Maintenance and Specifications

CHECKING AND ADDING POWER STEERING FLUID

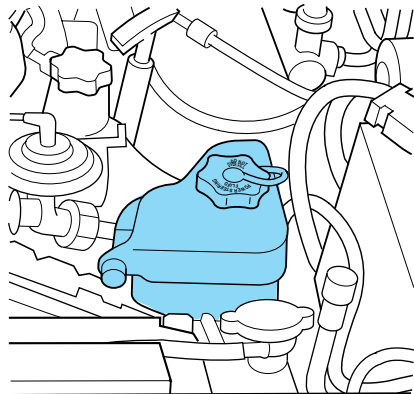
- 2.3L I4 engine



- 3.0L V6 engine



- 4.0L V6 engine



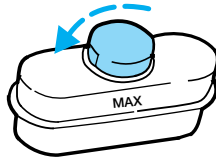
Maintenance and Specifications

Check the power steering fluid. Refer to the scheduled maintenance guide for the service interval schedules. If adding fluid is necessary, use only MERCON® ATF.

1. Start the engine and let it run until it reaches normal operating temperature (the engine coolant temperature gauge indicator will be near the center of the normal area between H and C).
2. While the engine idles, turn the steering wheel left and right several times.
3. Turn the engine off.
4. **If your vehicle is equipped with a 3.0L V6 engine**, check the fluid level on the dipstick. It should be within the FULL HOT range. Do not add fluid if the level is within this range.
5. **If your vehicle is equipped with a 4.0L SOHC V6 or 2.3L I4 engine**, check the fluid level in the reservoir. It should be between the MIN and MAX lines. Do not add fluid if the level is within this range.
6. If the fluid is low, add fluid in small amounts, continuously checking the level until it reaches the FULL HOT range. Be sure to put the dipstick back in the reservoir.

BRAKE FLUID RESERVOIR

The fluid level will drop slowly as the brakes wear, and will rise when the brake components are replaced. Fluid levels below the “MAX” line that do not trigger the brake system warning lamp are within the normal operating range, there is no need to add fluid. If the fluid levels are outside of the normal operating range, the performance of your brake system could be compromised, seek service from your dealer immediately.



CLUTCH FLUID (IF EQUIPPED)

Check the fluid level. Refer to the scheduled maintenance guide for the service interval schedules.

During normal operation, the fluid level in the clutch reservoir should remain constant. If the fluid level drops, refill the fluid level to the step in the reservoir.

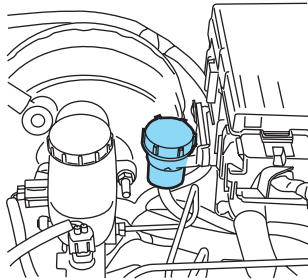
Use only a DOT 3 brake fluid designed to meet Ford specification ESA-M6C25-A. Refer to *Lubricant specifications* in this chapter.

Maintenance and Specifications



Brake fluid is toxic. If brake fluid contacts the eyes, flush eyes with running water for 15 minutes. Seek medical attention if irritation persists. If taken internally, drink water and induce vomiting. Seek medical attention immediately.

1. Clean the reservoir cap before removal to prevent dirt and water from entering the reservoir.
2. Remove cap and rubber diaphragm from reservoir.
3. Add fluid until the level reaches the step in the reservoir.
4. Reinstall rubber diaphragm and cap onto reservoir.



TRANSMISSION FLUID

Checking automatic transmission fluid

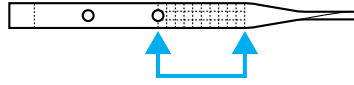
- Refer to your *Scheduled Maintenance Guide* for scheduled check and change intervals.
- Transmission does not consume fluid.
- Check fluid when transmission is not operating properly or if you see a leak.
- Fluid level must be checked at normal operating temperature, 30 km (20 miles) of driving.

To check and add fluid:

1. Drive the vehicle 30 km (20 miles) to reach normal operating temperatures.
2. If driven in hot weather, city traffic, pulling a trailer, allow transmission to cool for 30 minutes before checking.
3. Engage parking brake, start engine.
4. Put your foot on the brake pedal and move the gearshift lever slowly through all of the gear ranges.
5. Shift to P (Park) and leave the engine running.
6. Remove the dipstick, wipe clean with a dry lint free rag.
7. Install and fully seat the dipstick into the filler tube.

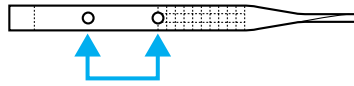
Maintenance and Specifications

8. Remove the dipstick and inspect the fluid level. Level should be in the cross-hatched area.



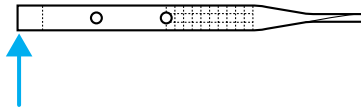
9. If necessary, add fluid in 250ml (1/2 pint) increments through the filler tube until the level is correct at normal operating temperatures. Refer to the *Lubricant specifications* section in this chapter for the correct fluid type. The use of any other non-approved fluid may cause internal transmission damage.

10. Fluid can be checked at ambient temperatures between 10–30°C (50–95°F). DO NOT ADD fluid until the transmission is at normal operating temperatures or the transmission will be overfilled.



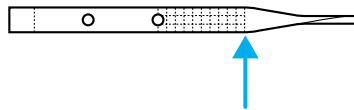
Low fluid level

Do not drive the vehicle if the fluid level is at or below the bottom of the dipstick.



High fluid level

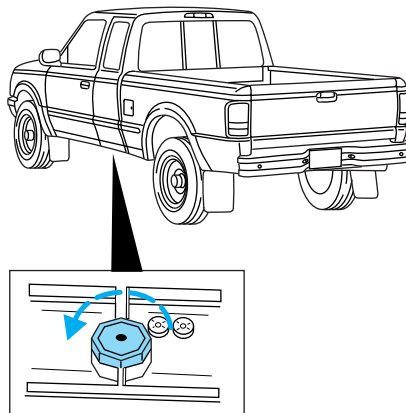
Fluid levels above the safe range may cause overheating, shift and/or engagement concerns and internal transmission damage. If an overfill condition occurs, excess fluid should be removed by a qualified technician.



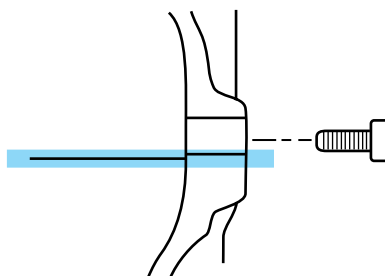
Maintenance and Specifications

Checking and adding manual transmission fluid (if equipped)

1. Clean the filler plug.
2. Remove the filler plug and inspect the fluid level.



3. Fluid level should be at the bottom of the opening.
4. Add enough fluid through the filler opening so that the fluid level is at the bottom of the opening.
5. Install and tighten the fill plug securely.

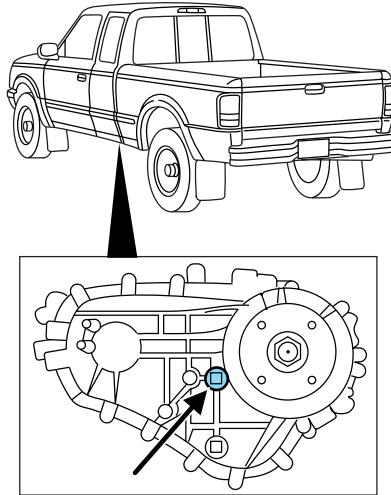


Use only fluid that meets Ford specifications. Refer to *Lubricant specifications* in this chapter.

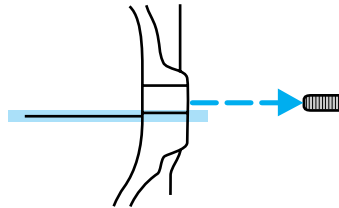
Maintenance and Specifications

Checking and adding transfer case fluid (if equipped)

1. Clean the filler plug.
2. Remove the filler plug and inspect the fluid level.



3. Add only enough fluid through the filler opening so that the fluid level is at the bottom of the opening.



Use only fluid that meets Ford specifications. Refer to *Lubricant specifications* in this chapter.

DRIVELINE UNIVERSAL JOINT AND SLIP YOKE

Your vehicle may be equipped with universal joints that require lubrication. Refer to the *Scheduled Maintenance Guide* for maintenance intervals. If the original universal joints are replaced with universal joints equipped with grease fittings, lubrication will also be necessary.

Maintenance and Specifications

AIR FILTER MAINTENANCE

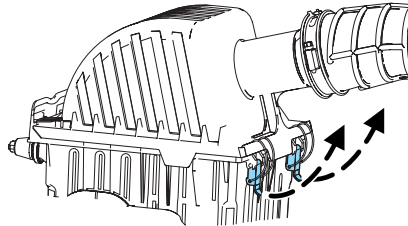
Refer to the scheduled maintenance guide for the appropriate intervals for changing the air filter element.

When changing the air filter element, use only the Motorcraft air filter element listed. Refer to *Motorcraft part numbers* in this chapter.

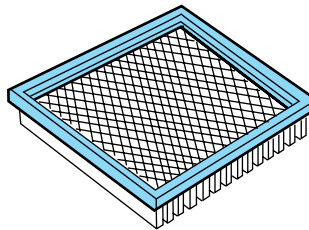
Note: Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

CHANGING THE AIR FILTER ELEMENT

1. Loosen the clamp that secures the air inlet tube to the engine air filter cover and disconnect the tube from the cover (for V6 only).
2. Release the clamps that secure the air filter housing cover.
3. Carefully separate the two halves of the air filter housing.



4. Remove the air filter element from the air filter housing.
5. Wipe the air filter housing and cover clean to remove any dirt or debris and to ensure good sealing.
6. Install a new air filter element. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unfiltered air to enter the engine if not properly seated.



7. Replace the air filter housing cover and secure the clamps.
8. Replace the air inlet tube and secure the clamp.

Maintenance and Specifications

Note: Failure to use the correct air filter element may result in severe engine damage. The customer warranty may be voided for any damage to the engine if the correct air filter element is not used.

MOTORCRAFT PART NUMBERS

Component	2.3L I4 engine	3.0L V6 engine	4.0L V6 engine
Air filter element	FA-1658	FA-1658	FA-1658
Fuel filter	FG-1080	FG-1080	FG-1080
Battery	BXT-59	BXT-59	BXT-59
Oil filter	FL-400S	FL-400S	FL-820S
PCV valve	¹		
Spark plugs	²		

¹The PCV valve is a critical emission component. It is one of the items listed in the *Scheduled Maintenance Guide* and is essential to the life and performance of your vehicle and to its emissions system.

For PCV valve replacement, see your dealer or a qualified service technician. Refer to the *Scheduled Maintenance Guide* for the appropriate intervals for changing the PCV valve.

Replace the PCV valve with one that meets Ford material and design specifications for your vehicle, such as a Motorcraft or equivalent replacement part. The customer warranty may be void for any damage to the emissions system if such a PCV valve is not used.

²For spark plug replacement, see your dealer or a qualified service technician. Refer to the *Scheduled Maintenance Guide* for the appropriate intervals for changing the spark plugs.

Replace the spark plugs with ones that meet Ford material and design specifications for your vehicle, such as Motorcraft or equivalent replacement parts. The customer warranty may be void for any damage to the engine if such spark plugs are not used.

Maintenance and Specifications

REFILL CAPACITIES

Fluid	Ford Part Name	Application	Capacity
Engine oil (includes filter change) ⁷	Motorcraft SAE 5W- 20 Premium Synthetic Blend Motor Oil (US)	2.3L engine	3.8L (4.0 quarts)
	Motorcraft SAE 5W-20 Super Premium Motor Oil (Canada)	3.0L V6 engine	4.3L (4.5 quarts)
	Motorcraft SAE 5W- 30 Super Premium Motor Oil	4.0L V6 engine	4.7L (5.0 quarts)
Brake fluid and Clutch fluid	Motorcraft High Performance DOT 3 Motor Vehicle Brake Fluid	All	Fill to line or step (for clutch) on reservoir
Power steering fluid	Motorcraft MERCON® ATF	3.0L engine	Fill to FULL HOT line on dipstick
		2.3L and 4.0L engine	Fill to MAX line on the reservoir

Maintenance and Specifications

Fluid	Ford Part Name	Application	Capacity
Transmission fluid ¹	Motorcraft MERCON® ATF	5-speed manual	2.65L (2.8 quarts) ³
	Motorcraft MERCON®V ATF	4x2 vehicles with automatic and 2.3L I4 engine	9.4L (9.9 quarts) ²
		4x2 vehicles with automatic and 3.0L or 4.0L engines	9.5L (10.0 quarts) ²
		4x4 vehicles with automatic and 3.0L or 4.0L	9.8L (10.3 quarts) ²
Engine coolant ⁴	Motorcraft Premium Gold Engine Coolant (yellow-colored)	2.3 L I4 engine with manual transmission	10.0L (10.5 quarts)
		2.3L I4 engine with automatic transmission	9.7L (10.2 quarts)
		3.0L V6 engine with manual transmission	14.3L (15.1 quarts)
		3.0L V6 engine with automatic transmission	14.0L (14.8 quarts)
		4.0L V6 engine with manual transmission	13.0L (13.7 quarts)
		4.0L V6 engine with automatic transmission	12.5L (13.2 quarts)

Maintenance and Specifications

Fluid	Ford Part Name	Application	Capacity
Fuel tank	N/A	Regular cab (Short wheel base)	64.4L (17 gallons)
		Regular cab (Long wheel base)	76.8L (20.3 gallons)
		SuperCab	73.8L (19.5 gallons)
Transfer case Fluid	Motorcraft MERCON® ATF	4x4 Vehicles	1.2L (1.25 quarts)
Front axle lubricant	Motorcraft SAE 80W-90 Premium Rear Axle Lubricant	4x4 Vehicles	1.7L (3.6 pints)
Rear axle lubricant ^{5, 6}	Motorcraft SAE 80W-90 Premium Rear Axle Lubricant	All (except FX4 Level II)	2.4-2.5L (5.0-5.3 pints)
Rear axle lubricant (FX4 Level II only) ⁶	Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant	FX4 Level II only	2.5-2.6L (5.25-5.5 pints)
Windshield washer fluid	Motorcraft Premium Windshield Washer Concentrate	All	2.6L (2.75 quarts)

¹Ensure the correct automatic transmission fluid is used. Transmission fluid requirements are indicated on the dipstick or on the dipstick handle. MERCON® and MERCON® V are not interchangeable. DO NOT mix MERCON® and MERCON®V. Refer to the *Scheduled Maintenance Guide* to determine the correct service interval.

²Indicates only approximate dry-fill capacity. Some applications may vary based on cooler size and if equipped with an in-tank cooler. The amount

Maintenance and Specifications

of transmission fluid and fluid level should be set by the indication on the dipstick's normal operating range.

³Service refill capacity for the manual transmission is determined by filling the transmission to the bottom of the filler hole with the vehicle on a level surface.

⁴Add the coolant type originally equipped in your vehicle.

⁵Traction-Lok axles use 2.2–2.4L (4.75–5.0 pints) of rear axle lubricant.

⁶Add 118 ml (4 oz.) of Additive Friction Modifier XL-3 or equivalent meeting Ford specification EST-M2C118-A for complete refill of Traction-Lok axles.

Service refill capacities are determined by filling the rear axle 6 mm to 14 mm (1/4 inch to 9/16 inch) below the bottom of the filler hole.

⁷Use of synthetic or synthetic blend motor oil is not mandatory. Engine oil need only meet the requirements of Ford specification WSS-M2C930-A and the API Certification mark.

LUBRICANT SPECIFICATIONS

Item	Ford part name or equivalent	Ford part number	Ford specification
Front axle (4X4)	Motorcraft SAE 80W-90 Premium Rear Axle Lubricant	XY-80W90-QL	WSP-M2C197-A
Rear axle	Motorcraft SAE 80W-90 Premium Rear Axle Lubricant ¹	XY-80W90-QL	WSP-M2C197-A
Rear axle (FX4 Level II only)	Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant ¹	XY-75W140-QL	WSL-M2C192-A

Maintenance and Specifications

Item	Ford part name or equivalent	Ford part number	Ford specification
Brake fluid and clutch fluid (if equipped)	Motorcraft High Performance DOT 3 Motor Vehicle Brake Fluid	PM-1	ESA-M6C25-A and DOT 3
Door weather strips	Silicone Lubricant	XL-6	ESR-M13P4-A
Engine coolant	Motorcraft Premium Gold Engine Coolant (yellow-colored)	VC-7-A (U.S., except CA and OR), VC-7-B (CA and OR only)	WSS-M97B51-A1
Engine oil	2.3L and 3.0L engines Motorcraft SAE 5W-20 Premium Synthetic Blend Motor Oil (US) Motorcraft SAE 5W-20 Super Premium Motor Oil (Canada)	XO-5W20-QSP (US) CXO-5W20-LSP12 (Canada)	WSS-M2C930-A and API Certification Mark
	4.0L engines Motorcraft SAE 5W-30 Super Premium Motor Oil	XO-5W30-QSP	WSS-M2C929-A and API Certification Mark

Maintenance and Specifications

Item	Ford part name or equivalent	Ford part number	Ford specification
Hinges, door checks, latches, striker plates, fuel filler door hinge and seat tracks	Multi-Purpose Grease	XG-4 or XL-5	ESB-M1C159-A or ESB-M1C93-B
Transmission /steering/parking brake linkages and pivots, brake and clutch pedal shaft, clutch pilot bearing and. input shaft spline (manual transmission)	Motorcraft Premium Long-Life Grease	XG-1-C or XG-1-K	ESA-M1C75-B
Power steering fluid, transfer case fluid (4X4) and transmission fluid (manual)	Motorcraft MERCON® ATF	XT-2-QDX	MERCON®
Automatic transmission (5R44E and 5R55E)	Motorcraft MERCON®V ATF ²	XT-5-QM	MERCON®V
Windshield washer fluid	Motorcraft Premium Windshield Washer Concentrate	ZC-32-A	WSB-M8B16-A2

Maintenance and Specifications

¹Add 118 ml (4 oz.) of Additive Friction Modifier XL-3 or equivalent meeting Ford specification EST-M2C118-A for complete refill of Traction-Lok axles.

²Ensure the correct automatic transmission fluid is used. Transmission fluid requirements are indicated on the dipstick or on the dipstick handle. MERCON® and MERCON® V are not interchangeable. DO NOT mix MERCON® and MERCON® V. Refer to your *Scheduled Maintenance Guide* to determine the correct service interval.

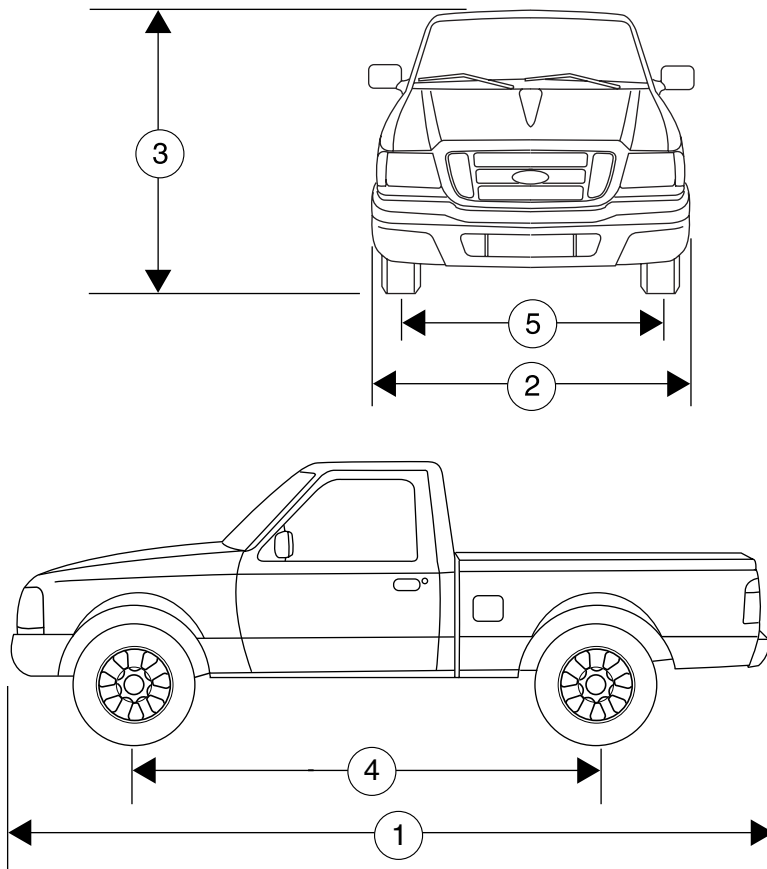
ENGINE DATA

Engine	2.3L I4 engine	3.0L V6 engine	4.0L V6 engine
Cubic inches	138	182	245
Required fuel	87 octane	87 octane	87 octane
Firing order	1-3-4-2	1-4-2-5-3-6	1-4-2-5-3-6
Ignition system	EDIS	EDIS	EDIS
Spark plug gap	0.049–0.053 inch (1.25–1.35 mm)	0.042–0.046 inch (1.07–1.17 mm)	0.052–0.056 inch (1.32–1.42 mm)
Compression ratio	9.7:1	9.7:1	9.7:1

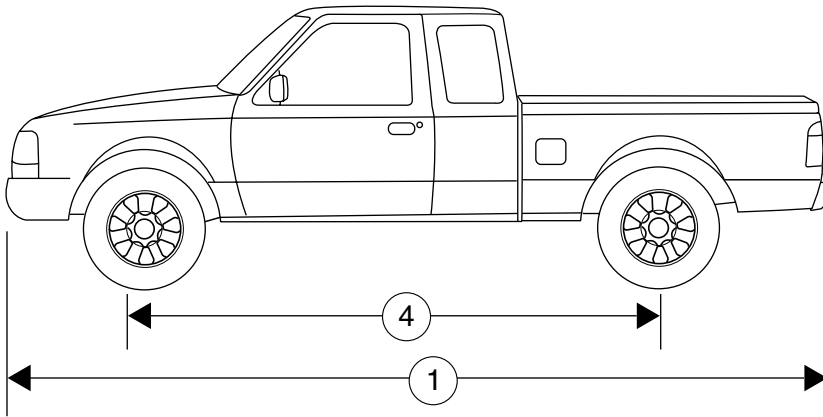
VEHICLE DIMENSIONS

Vehicle dimensions	Regular Cab Short Wheel Base (SWB) - inches (mm)	Regular Cab Long Wheel Base (LWB)) - inches (mm)	SuperCab) - inches (mm)
(1) Overall length	188.5 (4788)	200.4 (5092)	202.6 (5147)
(2) Overall width	69.4 (1762)	69.4 (1762)	70.3 (1785)
(3) Overall height – 4x2/4x4	65.0 (1652) / 68.5 (1740)	66.0 (1677) / 68.4 (1737)	66.0 (1676) / 68.7 (1746)
(4) Wheelbase	111.4 (2831)	117.4 (2983)	125.7 (3192)
(5) Track - Front	58.5 (1486)	58.5 (1486)	58.5 (1486)
(5) Track - Rear	57.3 (1455)	57.3 (1455)	57.3 (1455)

Maintenance and Specifications



Maintenance and Specifications



IDENTIFYING YOUR VEHICLE

Certification label

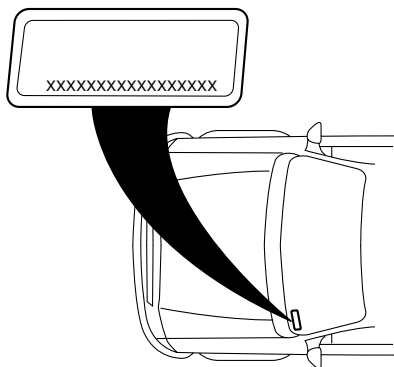
The National Highway Traffic Safety Administration Regulations require that a Certification label be affixed to a vehicle and prescribe where the Certification label may be located. The Certification label is located on the structure by the trailing edge of the driver's door or the edge of the driver's door.

MFD. BY FORD MOTOR CO. IN U.S.A.					
DATE: XX/XX		GVWR: XXXXXLB/ XXXXXKG			
FRONT GAWR: XXXXL		REAR GAWR: XXXXLB			
XXXXKG	WITH	XXXXKG	WITH		
XXXX/XXXXXX	TIRES	XXXX/XXXXXX	TIRES		
XXXX.XX	RIMS	XXXX.XX	RIMS		
AT XXX kPa/XX	PSI COLD	AT XXX kPa/XX	PSI COLD		
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.					
VIN: XXXXXXXXXXXXXXXXX				XXXXXX	
TYPE: XXX				XXXXXX	
EXT PNT: XX		RC: XX	DSO:		
WB	BRK	INT TR	TP/PS	R	AXLE
XXX	X	XX	X	XX	X XX
XXXXXXXXXXXXX UTC V2USA-1520472-AA					

Maintenance and Specifications

Vehicle identification number (VIN)

The vehicle identification number is attached to a metal tag and is located on the driver side instrument panel. (Please note that in the graphic XXXX is representative of your vehicle identification number.)



Engine number

The engine number (the last eight numbers of the vehicle identification number) is stamped on the engine block, transmission, frame and transfer case (if equipped).

Accessories

GENUINE FORD ACCESSORIES FOR YOUR VEHICLE

A wide selection of Genuine Ford Accessories are available for your vehicle through your local authorized Ford or Ford of Canada dealer. These quality accessories have been specifically engineered to fulfill your automotive needs; they are custom designed to complement the style and aerodynamic appearance of your vehicle. In addition, each accessory is made from high quality materials and meets or exceeds Ford's rigorous engineering and safety specifications. Ford Motor Company will repair or replace any properly dealer-installed Genuine Ford Accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessory. The accessory will be warranted for whichever provides you the greatest benefit:

- 12 months or 12,000 miles (20,000 km) (whichever occurs first), or
- the remainder of your new vehicle limited warranty.

This means that Genuine Ford Accessories purchased along with your new vehicle and installed by the dealer are covered for the full length of your New Vehicle's Limited Warranty — 3 years or 36,000 miles (60,000 km) (whichever occurs first). Contact your dealer for details and a copy of the warranty.

Not all accessories are available for all models.

The following is a list of several Genuine Ford Accessory products for your vehicle. Not all accessories are available for all models. For a complete listing of the accessories that are available for your vehicle, please contact your dealer or visit our online store at: www.fordaccessoriesstore.com.

Exterior style

Bug shields

Deflectors

Exterior trim

Fender flares

Front end covers

Grille inserts

Headlamps, taillamps, fog lights and Daytime Running Lamps (DRLs)

Running boards

Sliding rear windows - manual and power

244

REVIEW COPY

2005 Ranger (ran), Owners Guide (post-2002-fmt) (own2002),
Market: USA English (fus)

Accessories

Splash guards
Step bars
Tonneau covers
Wheels

Interior style

Consoles
Electrochromatic compass/temperature interior mirrors
Floor mats
Leather wrapped steering wheels
Scuff plates
Speed control

Lifestyle

Bedliners and bedmats
Bed tents
Bike racks
Cargo organization and management
Diamond plate accessories
Rear seat entertainment systems
Toolboxes
Towing mirrors
TracRac and accessories
Trailer hitches, wiring harnesses and accessories

Peace of mind

First aid and highway safety kits
Full vehicle covers
Locking gas cap
Navigation systems
Remote start
Vehicle security systems
Keyless entry keypad

Accessories

For maximum vehicle performance, keep the following information in mind when adding accessories or equipment to your vehicle:

- When adding accessories, equipment, passengers and luggage to your vehicle, do not exceed the total weight capacity of the vehicle or of the front or rear axle (GVWR or GAWR as indicated on the Safety Compliance Certification label). Consult your dealer for specific weight information.
- The Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulate the use of mobile communications systems — such as two-way radios, telephones and theft alarms - that are equipped with radio transmitters. Any such equipment installed in your vehicle should comply with FCC or CRTC regulations and should be installed only by a qualified service technician.
- Mobile communications systems may harm the operation of your vehicle, particularly if they are not properly designed for automotive use.
- To avoid interference with other vehicle functions, such as anti-lock braking systems, amateur radio users who install radios and antennas onto their vehicle should not locate the Amateur Radio Antennas in the area of the driver's side hood.
- Electrical or electronic accessories or components that are non-Genuine Ford Accessories added to the vehicle by the dealer or the owner may adversely affect battery performance and durability.

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