

Table of Contents

Introduction	4
Instrument Cluster	10
Warning and control lights	10
Gauges	15
Entertainment Systems	18
AM/FM stereo	18
AM/FM stereo with CD	22
AM/FM stereo cassette with CD	43
Climate Controls	75
Heater only	75
Manual heating and air conditioning	76
Lights	80
Headlamps	80
Turn signal control	82
Bulb replacement	82
Driver Controls	89
Windshield wiper/washer control	89
Steering wheel adjustment	90
Power windows	92
Mirrors	93
Speed control (Cruise control)	93

Table of Contents

Locks and Security 105

Keys	105
Locks	105
Anti-theft system	106

Seating and Safety Restraints 114

Seating	114
Safety restraints	115
Air bags	127
Child restraints	136

Driving 151

Starting	151
Brakes	155
Transmission operation	159
Vehicle loading	179
Trailer towing	181

Roadside Emergencies 194

Getting roadside assistance	194
Hazard flasher switch	195
Fuel pump shut-off switch	196
Fuses and relays	197
Changing tires	207
Jump starting	213
Wrecker towing	218

Table of Contents	
Customer Assistance	219
Reporting safety defects (U.S. only)	228
Cleaning	229
Maintenance and Specifications	236
Engine compartment	238
Engine oil	241
Battery	248
Fuel information	255
Part numbers	278
Refill capacities	279
Lubricant specifications	282
Accessories	288
Index	291

All rights reserved. Reproduction by any means, electronic or mechanical including photocopying, recording or by any information storage and retrieval system or translation in whole or part is not permitted without written authorization from Ford Motor Company. Ford may change the contents without notice and without incurring obligation.

Copyright © 2002 Ford Motor Company

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 the 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.

SAFETY AND ENVIRONMENT PROTECTION



Warning symbols in this guide

How can you reduce the risk of personal injury and prevent possible damage to others, your vehicle and its equipment? 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

There are no particular guidelines for breaking-in your vehicle. During the first 1,600 km (1,000 miles) of driving, vary speeds frequently. This is recommended to give the moving parts a chance to break in.

Introduction

SPECIAL NOTICES

Emission warranty

The New Vehicle Limited Warranty includes Bumper-to-Bumper Coverage, Safety Restraint Coverage, Corrosion Coverage, and 7.3L Power Stroke 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.

Special instructions

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



Please read the section *Air bag* 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 used in front of a passenger side air bag unless the air bag can be and is turned OFF.

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.

Introduction

Using your vehicle with a snowplow



Do not use this vehicle for snowplowing.

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.

Electric vehicles

For specific information regarding the operation of your electric vehicle, refer to the Electric Vehicle Owner's Guide Supplement.

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 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 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	
Traction Control		AdvanceTrac	
Master Lighting Switch		Hazard Warning Flasher	
Fog Lamps-Front		Fuse Compartment	
Fuel Pump Reset		Windshield Wash/Wipe	
Windshield Defrost/Demist		Rear Window Defrost/Demist	

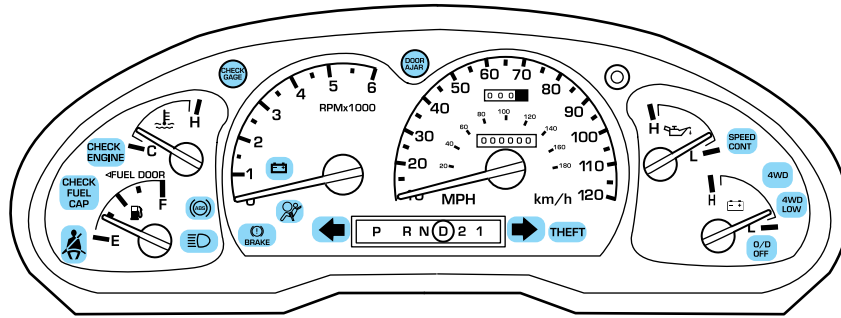
Introduction

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/Check Engine/Service Engine Soon		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, have the respective system inspected immediately.**

Check engine

Illuminates briefly to ensure the system is functional. If it comes on after the engine is started, one of the engine's emission control systems may be malfunctioning. The light may illuminate without a driveability concern being noted and will not require towing.

**CHECK
ENGINE**

Light turns on solid:

Temporary malfunctions may cause your light to illuminate. Examples are:

1. The vehicle has run out of fuel.
2. Poor fuel quality or water in the fuel.
3. The fuel cap may not have been properly installed and securely tightened.

These temporary malfunctions can be corrected by filling the fuel tank with high quality fuel of the recommended octane and/or properly installing and securely tightening the fuel cap. After three driving cycles without these or any other temporary malfunctions present, the light

Instrument Cluster

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 light remains on, have your vehicle serviced at the first available opportunity.

Light is blinking:

Engine misfire is occurring which could damage your catalytic converter. You should drive in a moderate fashion (avoid heavy acceleration and deceleration) and have your vehicle serviced at the first available opportunity.



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 gage

Illuminates when the engine coolant temperature is high, the engine oil pressure is low or the fuel gauge is at or near empty. Refer to *Engine coolant temperature gauge*, *Engine oil pressure gauge* or *Fuel gauge* in this chapter for more information.

**CHECK
GAGE**

Brake system warning

To confirm the brake system warning light is functional, it will momentarily illuminate when the ignition is turned to the ON position (alternatively for some vehicles when the ignition is moved from the ON position to START position, the light will momentarily illuminate prior to reaching the START position). It also illuminates if the parking brake is engaged. If the brake system warning light does not illuminate as described, seek service immediately. Illumination after the parking brake is released indicates low brake fluid level or a brake system malfunction and the brake system should be serviced immediately by a qualified technician.

Refer to *Brakes* in the *Driving* chapter for more information.

(!)
BRAKE

Instrument Cluster

Anti-lock brake system (ABS)

To confirm the anti-lock brake system (ABS) warning light is functional it will momentarily illuminate when the ignition is turned to the ON position



(alternatively for some vehicles when the ignition is moved from the ON position to the START position, the light will momentarily illuminate just prior to reaching the START position). If the light remains on, continues to flash or fails to illuminate, have the ABS serviced immediately. If the ABS light remains on, it means the anti-lock brake system has malfunctioned and is disabled, however, the normal brake system will still function unless the brake warning light also remains illuminated and parking brake is off. Refer to *Brakes* in the *Driving* chapter for more information.

Safety belt

Illuminates to remind you to fasten your safety belts. For more information, refer to the *Seating and safety restraints* chapter.



Air bag readiness

Illuminates to confirm that the air bags (front or side) are operational. If the light fails to illuminate, continues to flash or remains on, have the system serviced immediately.



Charging system

Illuminates when the battery is not charging properly.



Instrument Cluster

Check fuel cap

Illuminates when the fuel cap is not installed correctly. Check the fuel cap for proper installation. When the fuel filler cap is properly re-installed, the light(s) will turn off after a period of normal driving. Continuing to operate the vehicle with the check fuel cap light on, or a mis-installed fuel cap can activate the *Service Engine Soon/Check Engine* warning light.

**CHECK
FUEL
CAP**

It may take a long period of time for the system to detect an improperly installed fuel filler cap.

For more information, refer to *Fuel filler cap* in the *Maintenance and specifications* chapter.

Speed control

Illuminates when the speed control is activated.

**SPEED
CONT**

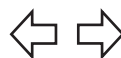
O/D off (if equipped)

Illuminates when the overdrive function has been turned OFF using the Transmission Control Switch (TCS) on end of gearshift. If the light does not come on or the light flashes steadily, have your vehicle serviced as soon as possible, as damage to the transmission could occur.

**O/D
OFF**

Turn signals

Illuminates when the turn signals or the hazard lights are turned on. If the lights stay on continuously or flash faster, check for a burned-out bulb.



High beams

Illuminates when the high beam headlamps are turned on.



Instrument Cluster

Door ajar

Illuminates when any door is open (or not fully closed).

**DOOR
AJAR**

Anti-theft system (if equipped)

Refer to *SecuriLock[™] passive anti-theft system* in the *Locks and Security* chapter.

THEFT

Four wheel drive high (if equipped)

Illuminates when four-wheel drive is put in high range. If the light continues to flash have the system serviced.

4WD

Four wheel drive high (if equipped)

Illuminates when four-wheel drive is put in high range. If the light continues to flash have the system serviced.

**4WD
HIGH**

Four wheel drive low (if equipped)

Illuminates when four-wheel drive low is engaged. If the light continues to flash have the system serviced.

**4WD
LOW**

Safety belt warning chime

Sounds to remind you to fasten your safety belts.

BeltMinder[™] chime

Sounds intermittently to remind you to fasten your safety belts.

Supplemental restraint system (SRS) warning chime

Sounds when a malfunction in the supplemental restraint system (front or side airbags) has been detected. Have the supplemental restraint system inspected immediately.

Instrument Cluster

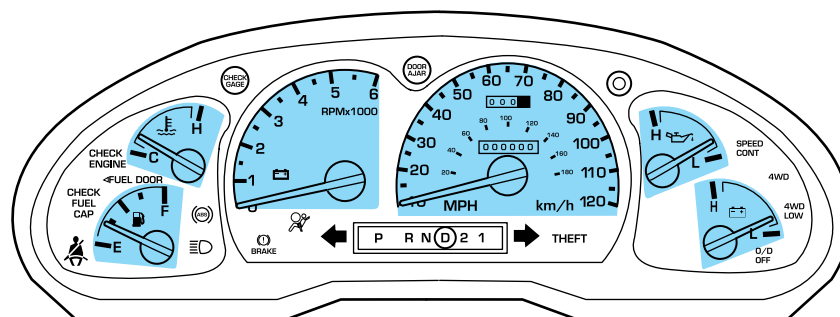
Headlamps on warning chime

Sounds when the headlamps or parking lamps are on, the key is removed from the ignition and the driver's door is opened.

Key-in-ignition warning chime

Sounds when the key is left in the ignition and the driver's door is opened.

GAUGES

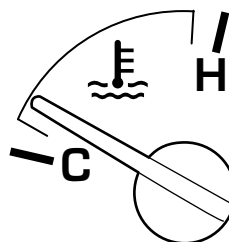


Engine coolant temperature gauge

Indicates the temperature of the engine coolant. At normal operating temperature, the needle remains within the normal area (the area between the "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 immediately and let the engine cool.

Refer to *Engine coolant* in the *Maintenance and specifications* chapter.



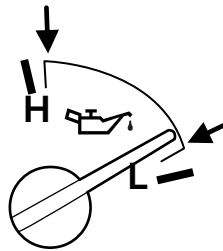
Never remove the coolant reservoir cap and/or the radiator cap while the engine is running or hot, this may result in serious burns.

Instrument Cluster

NOTE: This gauge indicates the temperature of the engine coolant, not the coolant level. If the coolant is not at its proper level the gauge indication will not be accurate.

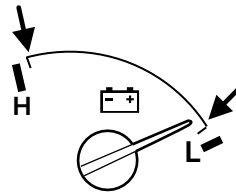
Engine oil pressure gauge

Indicates engine oil pressure. At normal operating temperature, the needle will be in the normal range (the area between the “L” and “H”); if the needle goes below the normal range, stop the vehicle as soon as safely possible and switch off the engine immediately. Check the oil level. Add oil if needed (refer to *Engine oil* in the *Maintenance and specifications* chapter). If the oil level is correct, have your vehicle checked at your dealership or by a qualified technician.



Battery voltage gauge

Indicates battery voltage. If the pointer moves and stays outside the normal operating range, have the vehicle's electrical system checked as soon as possible.

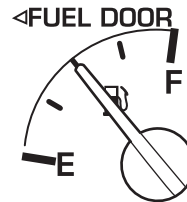


Fuel gauge

Displays approximately how much fuel is in the fuel tank. The fuel gauge may vary slightly when the vehicle is in motion or on a grade.

When refueling the vehicle from empty indication, the amount of fuel that can be added will be less than the advertised capacity due to the reserve fuel.

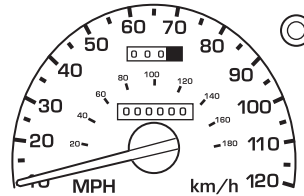
The FUEL DOOR icon and arrow indicates which side of the vehicle the fuel filler door is located.



Instrument Cluster

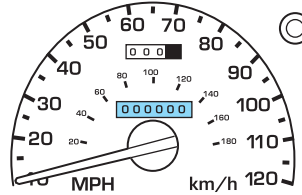
Speedometer

Indicates the current vehicle speed.



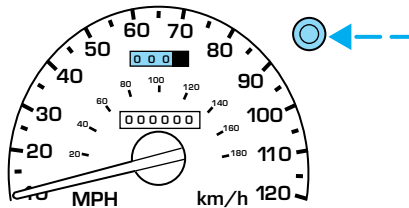
Odometer

Registers the total kilometers (miles) of the vehicle.



Trip odometer

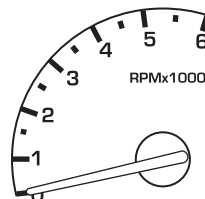
Registers the kilometers (miles) of individual journeys. To reset, depress the control.



Tachometer

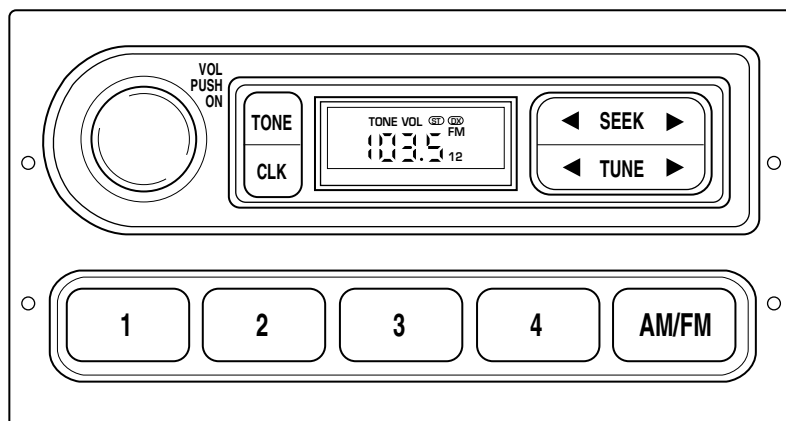
Indicates the engine speed in revolutions per minute.

Driving with your tachometer pointer continuously at the top of the scale may damage the engine.



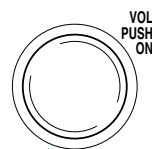
Entertainment Systems

AM/FM STEREO

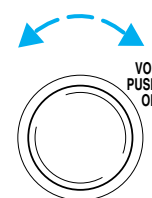


Volume/power control

Press the control to turn the audio system on or off.



Turn the control to raise or lower 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.

Entertainment Systems

AM/FM select

The AM/FM select control works in radio mode.

A rectangular button with rounded corners and a black border. The text "AM/FM" is centered in a bold, black, sans-serif font.

AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.

Tune adjust

The tune control works in radio mode.

Tune adjust in radio mode

- Press ◀ to move to the next frequency down the band (whether or not a listenable station is located there). Hold the control to move through the frequencies quickly.
- Press ▶ to move to the next frequency up the band (whether or not a listenable station is located there). Hold for quick movement.

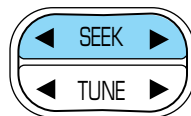


Seek function

The seek function control works in radio mode.

Seek function in radio mode

- Press ◀ to find the next listenable station down the frequency band.
- Press ▶ to find the next listenable station up the frequency band.



Entertainment Systems

Radio station memory preset



The radio is equipped with four station memory preset controls. These controls can be used to select up to four preset AM stations and eight FM stations (four in FM1 and four in FM2).

Setting memory preset stations

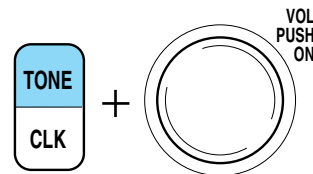
1. Select the frequency band with the AM/FM select control.
2. Select a station. Refer to *Tune adjust* or *Seek function* for more information on selecting a station.
3. Press and hold a memory preset control until the sound returns, indicating the station is held in memory on the control you selected.



Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.

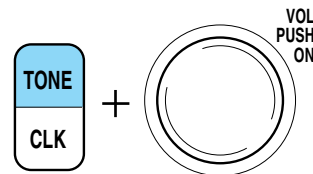
Press the TONE control once, then use the volume knob to adjust the desired level.



Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.

Press the TONE control twice, then use the volume knob to adjust the desired level.

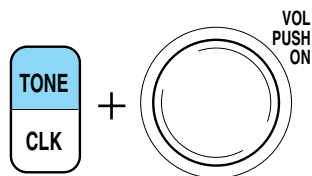


Entertainment Systems

Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.

Press the TONE control three times, then use the volume knob to adjust the desired level.

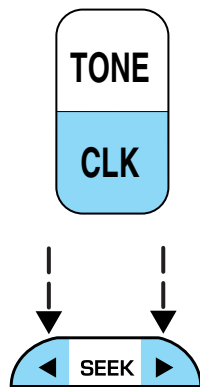


Setting the clock

Press CLK to toggle between listening frequencies and clock mode.

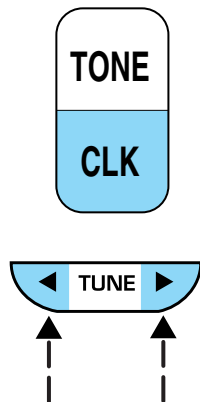
To set the hour, press and hold the CLK control until CLOCK SET appears in the display and press the SEEK control:

- ◀ to decrease hours and
- ▶ to increase hours.



To set the minute, press and hold the CLK control until CLOCK SET appears in the display and press the TUNE control:

- ◀ to decrease minutes and
- ▶ to increase minutes.



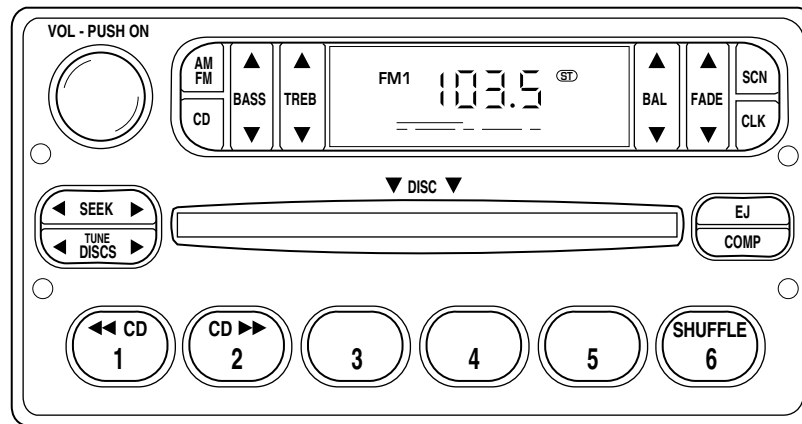
The CLK control will allow you to switch between media display mode (radio station, stereo information, etc.) and clock display mode (time).

When in clock mode, the media information will display for ten seconds,

Entertainment Systems

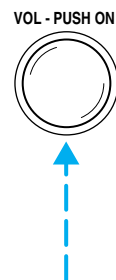
when the radio is turned on, and then revert to clock information. Any time that the media is changed, (new radio station, etc.), the media information will again display for ten seconds before reverting back to the clock. In media mode, the media information will always be displayed.

AM/FM STEREO / SINGLE CD RADIO



Volume/power control

Press the control to turn the audio system on or off.



Entertainment Systems

Turn the control to raise or lower 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.

AM/FM select

The AM/FM select control works in radio and CD modes.



AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.

AM/FM select in CD mode

Press this control to stop CD play and begin radio play.

Tune adjust

The tune control works in radio and CD changer mode (if equipped).

Tune adjust in radio mode

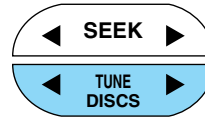
- Press ◀ to move to the next frequency down the band (whether or not a listenable station is located there). Hold the control to move through the frequencies quickly.
- Press ▶ to move to the next frequency up the band (whether or not a listenable station is located there). Hold for quick movement.



Entertainment Systems

Tune adjust for CD changer (if equipped)

- Press ◀ to select the previous disc in the CD changer. (Play will begin on the first track of the disc unless the CD changer is in shuffle mode. Refer to *Shuffle feature* for more information. Hold the control to continue reversing through the disc.
- Press ▶ to select the next disc in the CD changer. Hold the control to fast-forward through the remaining discs.

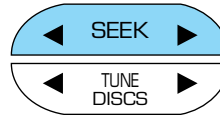


Seek function

The seek function control works in radio or CD mode.

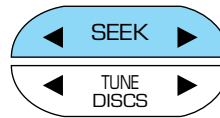
Seek function in radio mode

- Press ◀ to find the next listenable station down the frequency band.
- Press ▶ to find the next listenable station up the frequency band.



Seek function for CD mode

- Press ◀ to seek to the previous track of the current disc. If a selection has been playing for three seconds or more and you press ◀, the CD changer will replay that selection from the beginning.
- Press ▶ to seek forward to the next track of the current disc. After the last track has been completed, the first track of the current disc will automatically replay.



Scan function

The scan function works in radio or CD mode.



Scan function in radio mode

Press SCN to hear a brief sampling of all listenable stations on the frequency band. Press SCN again to stop the scan mode.

Entertainment Systems

Scan function in CD mode

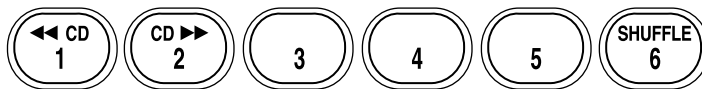
Press SCN to hear a short sampling of all selections on the CD. (The CD scans in a forward direction, wrapping back to the first track at the end of the CD.) To stop on a particular selection, press the control again.

Radio station memory preset

The radio is equipped with four or six station memory preset controls. These controls can be used to select up to four or six preset AM stations and eight or twelve FM stations (four to six in FM1 and four to six in FM2).

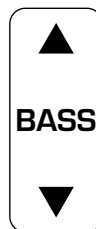
Setting memory preset stations

1. Select the frequency band with the AM/FM select control.
2. Select a station. Refer to *Tune adjust* or *Seek function* for more information on selecting a station.
3. Press and hold a memory preset control until the sound returns, indicating the station is held in memory on the control you selected.



Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.



Entertainment Systems

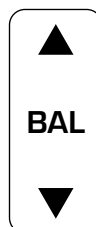
Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.



Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.



Speaker fade adjust

Speaker sound can be adjusted between the front and rear speakers.



CD select

- To begin CD play (if CD[s] are loaded), press the CD control. The first track of the disc will begin playing. After that, CD play will begin where it stopped last.



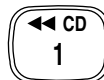
Entertainment Systems

Do not insert any promotional (odd shaped or sized) discs, or discs with removable labels into the CD player as jamming may occur.

Rewind

The rewind control works in CD and CD changer (if equipped) modes.

To rewind in CD mode press the CD control (preset 1).



Pressing the control for less than three seconds results in slow rewind. Pressing the control for more than three seconds results in fast rewind.

Fast forward

The fast forward control works in CD mode.

To fast forward in CD mode, press the CD control (preset 2).



Pressing the control for less than three seconds results in slow forward action. Pressing the control for more than three seconds results in fast forward action.

Eject function

Press the control to stop and eject a CD.



Compression feature

Compression adjust brings soft and loud CD passages together for a more consistent listening level.



Press the COMP control to activate and deactivate compression adjust.

Shuffle feature (if equipped with CD changer)

The shuffle feature operates in CD changer mode only and plays all tracks on the current disc in random order. The shuffle feature continues to the next disc after all tracks are played.



Press the SHUFFLE control to start this feature. Random order play will continue until the SHUFFLE control is pressed again.

Entertainment Systems

Setting the clock

Press CLK to toggle between listening frequencies and clock mode while in radio mode.

To set the hour, press and hold the CLK control.

Press the SEEK control:

- ◀ to decrease hours and
- ▶ to increase hours.

To set the minute, press and hold the CLK control.

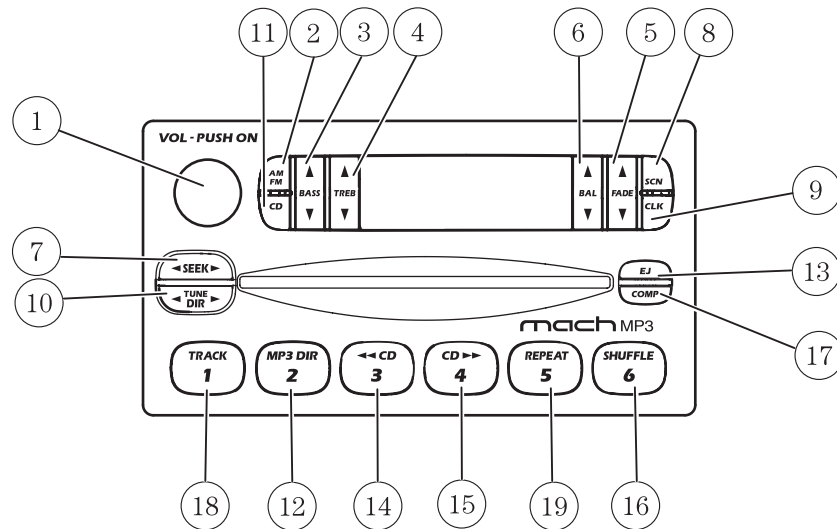
Press the TUNE control:

- ◀ to decrease minutes and
- ▶ to increase minutes.



Entertainment Systems

MACH® MP3 MUSIC SYSTEM



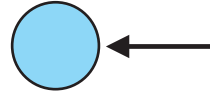
- | | |
|------------------------------|-----------------------------|
| 1. ON/OFF and volume control | 11. CD control |
| 2. AM/FM control | 12. MP3 directory control |
| 3. Bass control | 13. Eject control |
| 4. Treble control | 14. CD rewind control |
| 5. Fade control | 15. CD fast forward control |
| 6. Balance control | 16. Shuffle control |
| 7. Seek control | 17. Compression control |
| 8. Scan control | 18. Track control |
| 9. Clock control | 19. Repeat control |
| 10. Tune/Directory control | |

Entertainment Systems

Volume/power control

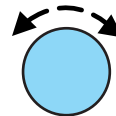
Press the control to turn the audio system on or off.

VOL - PUSH ON



Turn the control to raise or lower the volume.

VOL - PUSH ON



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.

AM/FM select

The AM/FM select control works in radio mode.

AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.



Tune adjust

The tune adjust control works in radio mode.

Tune adjust in radio mode

- Press ◀ to move to the next frequency down the band. Hold for quick movement through the frequencies.
- Press ▶ to move to the next frequency up the band. Hold for quick movement through the frequencies. When the top of the band is reached, the tuner will continue to select from the lowest frequency upward.



Entertainment Systems

When a radio frequency is in tune, the ST icon will appear in the display for stereo broadcasts.

MP3 functions

Your audio system is equipped with MP3 capability which allows you to listen to songs in MP3 flat file mode and MP3 directory mode.

To engage MP3 flat file mode, insert an MP3 disc. If an MP3 disc is already present in the player, press the CD control. The MP3 icon will display while the player is in MP3 mode.

While in MP3 flat file mode, press the MP3 DIR control to enter into MP3 directory mode. The MP3 icon and the DIR icon will display while the player is in directory mode.



Your MACH® MP3 player is also equipped with an anti-shock buffer for MP3 discs.

MP3 file directory structure

The MACH® MP3 music system recognizes MP3 disc file and directory (folder) structure as follows:

- There are two different modes for MP3 disc playback: MP3 flat file mode (default) and MP3 directory mode.
- MP3 flat file mode ignores any directory structure present on the MP3 disc. The player sequentially numbers each MP3 track on the disc (denoted by the .mp3 file extension) from T001 to T255.
- MP3 directory mode represents a directory structure consisting of one level of directories (folders). The CD player sequentially numbers all MP3 tracks on the disc (denoted by .mp3 extension) and all directories containing MP3 files, from 01–01 to 99–99. The first two digits denote the directory number and the last two digits denote the track number within that directory.
- Creating discs with only one level of subdirectories will help with navigation through the disc files.

Seek function

The seek function control works in radio, CD, MP3 flat file mode and MP3 directory modes.

Entertainment Systems

Seek function in radio mode

- Press ◀ to find the next listenable station down the frequency band.
- Press ▶ to find the next listenable station up the frequency band.



Seek function in CD, MP3 flat file and MP3 directory modes

- Press ◀ to select and play the previous track on the disc. If the current track is the first track on the disc, pressing ◀ will select the last track on the disc.
- Press ▶ to select and play the next track on the disc. If the current track is the last track on the disc, pressing ▶ will select the first track on the disc.



Press and hold the SEEK control to quickly seek through all tracks in MP3 flat file mode or all tracks in the current MP3 directory.

Note: If a track has been playing for three seconds or more and you press ◀ on the SEEK control, the player will replay that track from the beginning.

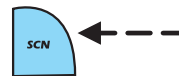
Scan function

The scan function works in radio, CD, MP3 flat file and MP3 directory modes.

Scan function in radio mode

Press SCN to engage scan mode and to hear a brief sampling of all listenable stations on the frequency band. When the top of the band is reached, the tuner will continue to scan from the lowest frequency upward.

Press SCN again to disengage scan mode.



Entertainment Systems

Scan function in CD mode

Press SCN to engage scan mode and to hear a brief sampling of all tracks on the disc. The track number in the display will blink while the scan function is enabled. When the end of the disc is reached, the player will continue to scan from the first track forward.



Press SCN again to disengage scan mode.

Scan function in MP3 flat file mode

The scan function in MP3 flat file mode allows you to briefly audition all tracks on the MP3 disc.

Press SCN to engage scan mode and to hear a brief sampling of all tracks on the MP3 disc. The track number in the display will blink while the scan function is enabled. When the end of the disc is reached, the player will continue to scan from the first track forward.



Press SCN again to disengage scan mode.

Scan function in MP3 directory mode

The scan function in MP3 directory mode allows you to briefly audition all tracks within the current directory on the MP3 disc.

Press SCN to engage scan mode and to hear a brief sampling of all tracks in the current directory. The track number in the display will blink while the scan function is enabled. When the last track is reached, the player will continue to scan from the first track in the current directory forward.



Press SCN again to disengage scan mode.

To scan tracks in another directory, press ◀ or ▶ on the TUNE DIR control to select the desired directory. The scan function will be disabled when you change directories.

Press the SCN control again to enable the scan function for the selected directory.

Entertainment Systems

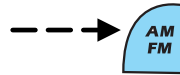
Radio station memory preset



The radio is equipped with six station memory preset controls. These controls can be used to select up to six preset AM stations and twelve FM stations (six in FM1 and six in FM2).

Setting memory preset stations

1. Select the frequency band with the AM/FM select control.



2. Select a station. Refer to *Tune adjust* or *Seek function* for more information on selecting a station.



3. Press and hold a memory preset control until the sound returns, indicating the station is held in memory on the control you selected.

Accessing memory preset stations

1. Select the desired frequency band with the AM/FM select control.

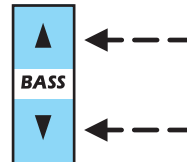


2. Press the preset control which contains the desired station frequency. The desired station will begin to play.

Entertainment Systems

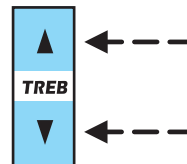
Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.



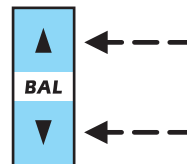
Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.



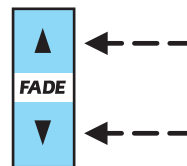
Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.



Speaker fade adjust

Speaker sound can be adjusted between the front and rear speakers.



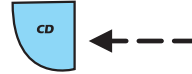
CD select

The CD select function allows you to play CDs.

Entertainment Systems

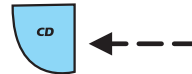
Playing a CD

- If a CD is already loaded, press the CD control. CD play will begin where it stopped last.
- If a CD is not already loaded, insert the CD into the system. CD will briefly appear in the display and then the first track on the disc will begin playing.



Playing an MP3 disc in MP3 flat file mode and MP3 directory mode

- Insert an MP3 disc into the player. CD and LOAD will appear in the display. Initialization may take up to two minutes for discs containing complex file directories.
- The display will briefly show the total number of tracks on the disc as TXXX (XXX= number of tracks).
- If an MP3 disc is already present in the player, press the CD control to begin play.



- Press the MP3 DIR control to engage MP3 directory mode, if desired. The track number format on the display will change from TXXX (XXX=current track number) to XX-XX (directory —track number).



Note: If the car's ignition is turned off and on again, play will begin at the beginning of the last song played. If the radio was powered off by the VOL control, play will start where it last left off.

- To stop MP3 disc play, eject the disc or press the AM/FM control. The player will return to radio mode.



Selecting a directory in MP3 directory mode

The TUNE DIR control allows you to select a different directory to play on the MP3 disc.

- Press  on the TUNE DIR control to advance to the next directory on the MP3 disc. If the



Entertainment Systems

current directory is the last directory on the disc, pressing ► will select the first directory on the disc. Press and hold for fast selection.

- Press ◀ on TUNE DIR to revert to the previous directory on the MP3 disc. If the current directory is the first directory on the disc, pressing ◀ will select the last directory on the disc. Press and hold for fast selection.

Eject function

Press the control to stop and eject a disc.



If a disc is ejected and not removed from the player, the player will automatically reload the disc and return to radio mode. This feature will operate when the ignition is on or off.

Rewind

The rewind control works in CD mode. It is not enabled in MP3 flat file mode or MP3 directory mode.

Press and hold the rewind control until the desired selection point is reached. The display will show the elapsed time for each track as you reverse through it. When the beginning of the disc is reached, the first track on the disc will begin to play.



Release the rewind control again to disengage rewind mode.

Fast forward

The fast forward control works in CD mode. It is not enabled in MP3 flat file mode or MP3 directory mode.

Press and hold the control until the desired selection point is reached. The display will show the elapsed time for each track as you fast-forward through it. When the end of the disc is reached, the player will continue fast-forwarding from the first track forward.



Release the control to disengage fast-forwarding.

Compression feature

The compression feature works in CD, MP3 flat file mode and MP3 directory mode.

Entertainment Systems

Compression adjust brings soft and loud CD passages together for a more consistent listening level.

Press the COMP control to activate compression adjust. The compression icon (c) will illuminate in the display while the compression function is enabled.

Press the COMP control again to disengage the feature.



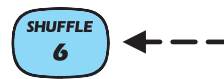
Shuffle feature

The shuffle feature works in CD mode, MP3 flat file mode and MP3 directory mode.

Shuffle feature in CD mode

The shuffle feature plays all tracks on the current disc in random order.

- Press the SHUFFLE control to engage random play. SHF and then ON will briefly appear in the display. The player will then begin random play.
- To select another random track on the disc, press ◀ or ▶ on the SEEK control.
- Press the SCN control to scan through random tracks. The track number will flash in the display. The shuffle feature will remain enabled.



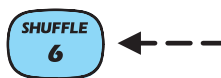
Press the SHUFFLE control again to disable the shuffle function. SHF and then OFF will briefly appear in the display.

Shuffle feature in MP3 flat file mode

The shuffle feature in MP3 flat file mode allows you to play all the tracks on the MP3 disc in random order.

Entertainment Systems

- Press the SHUFFLE control to engage random play. SHF and then ON will briefly appear in the display. The player will then begin random play.
- To select another random track on the disc, press ◀ or ▶ on the SEEK control.
- Press SCN to scan through random tracks. The track number will flash in the display. The shuffle function will remain enabled.
- Press SHUFFLE again to disengage the shuffle feature. SHF and then OFF will briefly display and the current track will continue to play.



Shuffle feature in MP3 directory mode

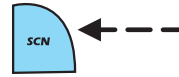
The shuffle feature in MP3 directory mode allows you to play all the tracks in the current directory in random order.

- Press the SHUFFLE control to engage random play in the current directory. SHF and then ON will briefly appear in the display. The player will then begin random play.
- To select another random track in the current directory, press ◀ or ▶ on the SEEK control.



Entertainment Systems

- Press the SCN control to scan through random tracks in the current directory. The track number will flash in the display. The shuffle feature will remain enabled.



To shuffle tracks in another directory, press ◀ or ▶ on the TUNE DIR control to select the desired directory. The shuffle function still remains enabled.



Press the SHUFFLE control again to disengage the SHUFFLE feature. SHUF and OFF will briefly display and the current track will continue to play.

MACH® Track function

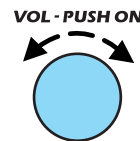
The MACH® track function allows you to quickly search through a large number of tracks or directories on the MP3 disc. The function works in MP3 flat file mode and MP3 directory mode.

Track function in MP3 flat file mode and MP3 directory mode

- Press the TRACK control. TRAC will appear in the display.



- Rotate the volume control to advance or reverse through the tracks.



The MP3 icon will blink in the display while the MACH® track function is enabled.

When the desired track is reached, the selected track will begin play after a two second delay.

To disengage the MACH® track function, press the TRACK control again.

Repeat track function

This function works in MP3 flat file mode or MP3 directory mode and allows you to repeat the current track on the MP3 disc.

Entertainment Systems

Repeat track function in MP3 flat file mode and MP3 directory mode.

Press the REPEAT control to repeat the current track. The repeat icon will display and the current track will continue to repeat until the repeat function is disengaged.



Press the REPEAT control again to disengage the feature.

Error messages

You may experience an error message for the following situations:

- NO DISC when the CD control is pressed and there is not a CD present.
- DISC ERR when there is a damaged or unreadable disc. Such as, data discs containing no .mp3 files, or for data discs containing more than 255 files or directories.
- CD ERR for any other disc malfunction.

Setting the clock

To set the hour, press and hold the CLK control while performing the following functions:



- Press ◀ on the SEEK control to decrease the hours.
- Press ▶ on the SEEK control to increase the hours.



To set the minutes, press and hold the CLK control while performing the following functions:

- Press ◀ on the TUNE DIR control to decrease the minutes.
- Press ▶ on the TUNE DIR control to increase the minutes.



Release the CLK control to save the clock settings. Press the CLK control again to return the display to radio mode.

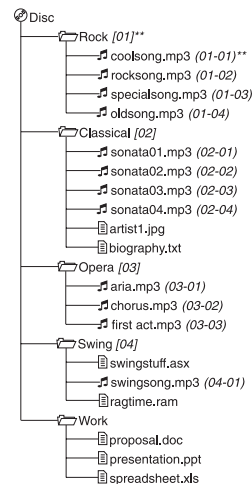
Entertainment Systems

Saving and naming MP3 files

- Your MACH® MP3 music system supports discs containing up to 255 files in 255 directories. Discs containing more than 255 files will not play.
- Always save MP3 files with the .mp3 extension. The player recognizes an MP3 file by the .mp3 extension, so MP3 files saved with different extensions will not be played. **Never save a non-MP3 file with the .mp3 extension as the file will not play properly and damage may occur to the player or your sound system.**
- The player supports multi session discs. However, be sure to import the previous session of the disc before you add new files. If you do not import the previous session, only the last session will be played.
- When burning a disc, ensure that you close/finalize the disc before playback, or the disc may not play properly or an error message may appear.
- The player supports DAM (Digital Automatic Music) discs.

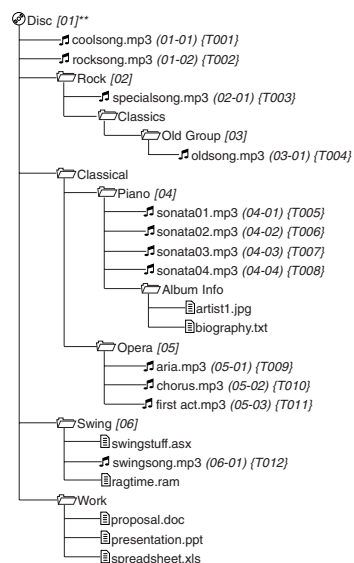
Sample hierarchies

If you are burning your own MP3 discs, it is important to understand how the MACH® MP3 music system will read the hierarchies you create. This is an example of creating a directory structure that is one level deep with various types of music. While various files are present, (files with extensions other than mp3), only files with the .mp3 extension will be played. Other files will be ignored by the system. This enables you to use the same MP3 disc for a variety of tasks on your work computer, home computer and your MACH® MP3 music system.



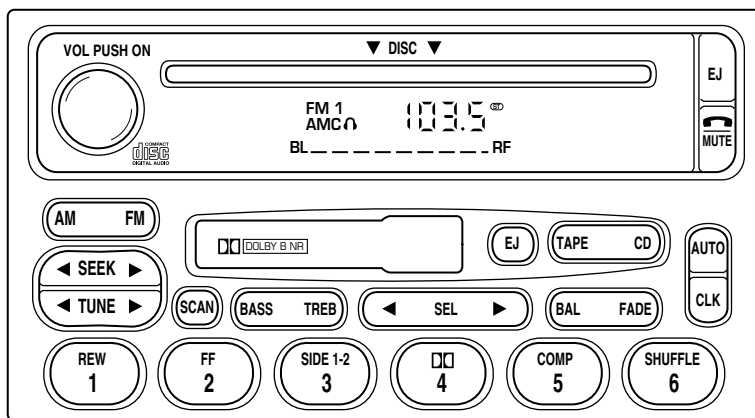
Entertainment Systems

This hierarchy is an example of a more complex directory structure. While you are capable of setting up many directory levels when burning a CD, the MACH® MP3 music system will display the structure as if it were only one level deep. Therefore, the system will condense the complex hierarchy into a structure similar to the one-level-deep example above. This will not harm the MP3 disc and will not change the hierarchy that is actually written on the disc. Only mp3 files will be played, files with other extensions will be skipped.



In this example, (xx) = directory, (xx-xx) = directory -track, and (Txxx) = flat file track.

PREMIUM AM/FM STEREO/CASSETTE/SINGLE CD



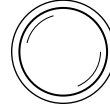
Entertainment Systems

Volume/power control

Press the control to turn the audio system on or off.

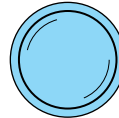
Audio power can also be turned on by pressing the AM/FM select control or the TAPE/CD select control.

VOL - PUSH ON



Turn control to raise or lower volume.

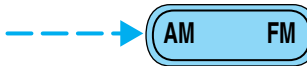
VOL - PUSH ON



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.

AM/FM select

The AM/FM select control works in radio, tape and CD modes.



AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.

AM/FM select in tape mode

Press this control to stop tape play and begin radio play.

Tune adjust

The tune control works in radio mode.

Tune adjust in radio mode

- Press ◀ to move to the next frequency down the band (whether or not a listenable station is located there). Hold the control to move through the frequencies quickly.



Entertainment Systems

- Press ► to move to the next frequency up the band (whether or not a listenable station is located there). Hold for quick movement.

Seek function

The seek function control works in radio, tape or CD mode.

Seek function in radio mode

- Press ◀ to find the next listenable station down the frequency band.
- Press ► to find the next listenable station up the frequency band.



Seek function in tape mode

- Press ◀ to listen to the previous selection on the tape.
- Press ► to listen to the next selection on the tape.

Seek function in CD mode

- Press ◀ to seek to the previous track of the current disc.
- Press ► to seek forward to the next track of the current disc. After the last track has been completed, the first track of the current disc will automatically replay.



Scan function

The scan function works in radio, tape or CD mode.



Scan function in radio mode

Press the SCAN control to hear a brief sampling of all listenable stations on the frequency band. Press the control again to stop the scan mode.

Scan function in tape mode

Press the SCAN control to hear a short sampling of all selections on the tape. (The tape scans in a forward direction. At the end of the tape's first side, direction automatically reverses to the opposite side of the tape.) To stop on a particular selection, press the control again.

Scan function in CD mode

Press the SCAN control to hear a short sampling of all selections on the CD. (The CD scans in a forward direction, wrapping back to the first track at the end of the CD.) To stop on a particular selection, press the control again.

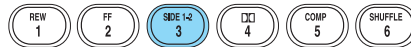
Entertainment Systems

Radio station memory preset

The radio is equipped with six station memory preset controls. These controls can be used to select up to six preset AM stations and twelve FM stations (six in FM1 and six in FM2).

Setting memory preset stations

1. Select the frequency band with the AM/FM select control.
2. Select a station. Refer to *Tune adjust* or *Seek function* for more information on selecting a station.
3. Press and hold a memory preset control until the sound returns, indicating the station is held in memory of the control you selected.



Autoset memory preset

Autoset allows you to set strong radio stations without losing your original manually set preset stations. This feature is helpful on trips when you travel between cities with different radio stations.

Starting autoset memory preset

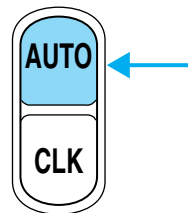
1. Select a frequency using the AM/FM select controls.
2. Press the control.

3. When the first six strong stations are filled, the station stored in memory preset control 1 will start playing.

If there are less than six strong stations available on the frequency band, the remaining memory preset controls will all store the last strong station available.

These stations are temporarily stored in the memory preset controls (until deactivated) and are accessed in the same manner as your original presets.

To deactivate autoset and return to your audio system's manually set memory stations, press the AUTO control again.



Entertainment Systems

Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.

Press the BASS control then press:

- ◀ to decrease the bass output and
- ▶ to increase the bass output.



Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.

Press the TREB control then press:

- ◀ to decrease the treble output and
- ▶ to increase the treble output.



Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.

Press the BAL control then press:

- ◀ to shift sound to the left and
- ▶ to shift sound to the right.



Speaker fade adjust

Speaker sound can be adjusted between the front and rear speakers.

Press the FADE control then press:

- ▶ to shift the sound to the front and
- ◀ to shift the sound to the rear.



Entertainment Systems

Tape/CD select

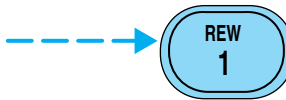
- To begin tape play (with a tape loaded into the audio system) while in the radio or CD mode, press the TAPE control. Press the button during rewind or fast forward to stop the rewind or fast forward function.
- To begin CD play (if CD is loaded), press the CD control. The first track of the disc will begin playing. If returning from radio or tape mode, CD play will begin where it stopped last.



Rewind

The rewind control works in tape and CD modes.

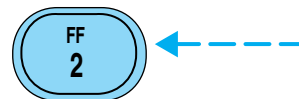
- In tape mode, radio play will continue until rewind is stopped (with the TAPE control) or the beginning of the tape is reached.
- In CD mode, pressing the REW control rewinds the CD within the current track.



Fast forward

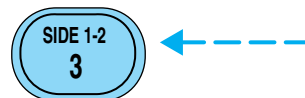
The fast forward control works in tape and CD modes.

- In the tape mode, tape direction will automatically reverse when the end of the tape is reached.
- In CD mode, pressing the FF control fast forwards the CD within the current track.



Tape direction select

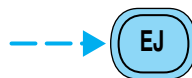
Press to play the alternate side of the tape.



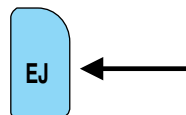
Entertainment Systems

Eject function

Press the EJ control to stop and eject a tape.

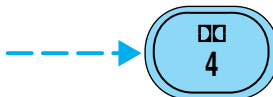


Press the EJ control to stop and eject a CD.



Dolby® noise reduction

Dolby® noise reduction operates in tape mode. Dolby® noise reduction reduces the amount of hiss and static during tape playback.

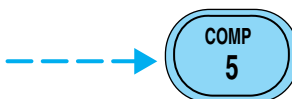


Press the  control to activate (and deactivate) the Dolby® noise reduction.

Dolby® noise reduction is manufactured under license from Dolby® Laboratories Licensing Corporation. "Dolby®" and the double-D symbol  are registered trademarks of Dolby® Laboratories Licensing Corporation.

Compression adjust

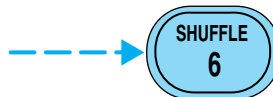
Compression adjust brings soft and loud CD passages together for a more consistent listening level.



Press the COMP control to activate and deactivate compression adjust.

Shuffle feature

The shuffle feature operates in CD mode and plays all tracks in random order.

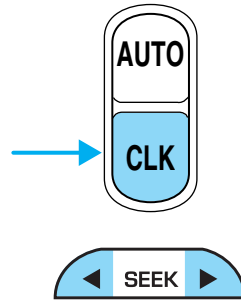


Press the SHUFFLE control to start this feature. Random order play will continue until the SHUFFLE control is pressed again.

Entertainment Systems

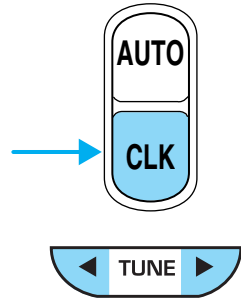
Setting the clock

To set the hour, press and hold the CLK control and press SEEK:



- ◀ to decrease hours and
- ▶ to increase hours.

To set the minute, press and hold the CLK control and press TUNE:

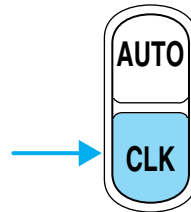


- ◀ to decrease minutes and
- ▶ to increase minutes.

If your vehicle has a separate clock, (other than the digital radio display), the CLK control will not function in the above manner.

The CLK control will allow you to switch between media display mode (radio station, stereo information, etc.) and clock display mode (time).

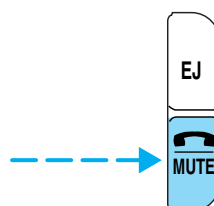
When in clock mode, the media information will display for 10 seconds, when the radio is turned on, and then revert to clock information. Any time that the media is changed, (new radio station, etc.), the media information will again display for 10 seconds before reverting back to the clock. In media mode, the media information will always be displayed.



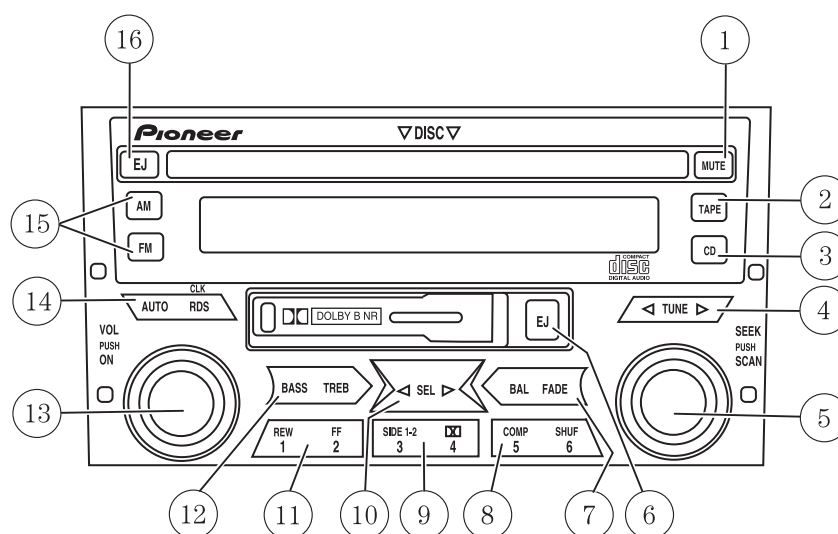
Entertainment Systems

Mute mode

Press the MUTE control to mute the playing media. Press the MUTE control again to return to the playing media.



TREMOR II AUDIO SYSTEM

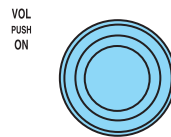


- | | |
|--------------------------------|----------------------------------|
| 1. Mute control | 9. Tape direction/Dolby® control |
| 2. Tape control | 10. Select control |
| 3. CD control | 11. Rewind/fast forward control |
| 4. Tune control | 12. Bass/treble control |
| 5. Seek/scan control | 13. Volume/on/off control |
| 6. Eject control (tape) | 14. Auto/RDS control |
| 7. Balance/fade control | 15. AM/FM control |
| 8. Compression/shuffle control | 16. Eject control (CD) |

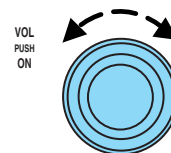
Entertainment Systems

Volume/power control

Press the control to turn the audio system on or off.



Turn control to raise or lower 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. If you wish to maintain your preset volume level, turn the audio system off with the power control before switching off the ignition.

AM/FM select

The AM/FM select control works in radio, tape and CD modes.



AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.

AM/FM select in tape mode

Press this control to stop tape play and begin radio play.

AM/FM select in CD mode

Press this control to stop CD play and begin radio play.

Tune adjust

The tune control works in radio mode.

Entertainment Systems

Tune adjust in radio mode

- Press ◀ to move to the next frequency down the band (whether or not a listenable station is located there). Hold the control to move through the frequencies quickly.
- Press ▶ to move to the next frequency up the band (whether or not a listenable station is located there). Hold for quick movement.

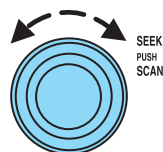


Seek function

The seek function control works in radio, tape or CD mode.

Seek function in radio mode

- Turn the control to the right to find the next listenable station up the frequency band.
- Turn the control to the left to find the next listenable station down the frequency band.

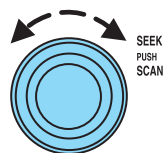


Seek function in tape mode

- Turn the control to the right to listen to the next selection.
- Turn the control to the left to listen to the previous selection.

Seek function in CD mode

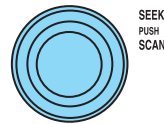
- Turn to the left to seek to the previous track. If a selection has been playing for three seconds or more, the CD will replay from the beginning.
- Turn to the right to seek forward to the next track. After the last track has been completed, the first track will automatically replay.



Entertainment Systems

Scan function

The scan function works in radio, tape or CD mode.



Scan function in radio mode

Press the SCAN control to hear a brief sampling of all listenable stations on the frequency band. Press the control again to stop the scan mode.

Scan function in tape mode

Press the SCAN control to hear a short sampling of all selections on the tape. (The tape scans in a forward direction. At the end of the tape's first side, direction automatically reverses to the opposite side of the tape.) To stop on a particular selection, press the control again.

Scan function in CD mode

Press the SCAN control to hear a short sampling of all selections on the CD. (The CD scans in a forward direction, wrapping back to the first track at the end of the CD.) To stop on a particular selection, press the control again.

Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.

Press the BASS control then press:

- ◀ to decrease bass output and
- ▶ to increase bass output.



Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.



Entertainment Systems

Press the TREB control then press:

- ◀ to decrease treble output and
- ▶ to increase treble output.



Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.

Press the BAL control then press:

- ◀ to shift sound to the left and
- ▶ to shift sound to the right.



Speaker fade adjust

Speaker sound can be adjusted between the front and rear speakers.

Press the FADE control then press:

- ▶ to shift sound to the front and
- ◀ to shift sound to the rear.



Radio station memory preset

The radio is equipped with six station memory preset controls. These controls can be used to select up to six preset AM stations and twelve FM stations (six in FM1 and six in FM2).

Setting memory preset stations

1. Select the frequency band with the AM/FM select control.
2. Select a station. Refer to *Tune adjust* or *Seek function* for more information on selecting a station.



3. Press and hold a memory preset control until the sound returns, indicating the station is held in memory on the control you selected.

Entertainment Systems

Autoset memory preset

Autoset allows you to set strong radio stations without losing your original manually set preset stations. This feature is helpful on trips when you travel between cities with different radio stations.

Starting autoset memory preset

1. Select a frequency using the AM/FM select controls.
2. Press the AUTO control.

3. When the first six strong stations are filled, the station stored in memory preset control 1 will start playing.



If there are less than six strong stations available on the frequency band, the remaining memory preset controls will all store the last strong station available.

To deactivate autoset and return to your audio system's manually set memory stations, press the AUTO control again.

Tape/CD select

- To begin tape play (with a tape loaded into the audio system) while in the radio or CD mode, press the TAPE control. Press the button during rewind or fast forward to stop the rewind or fast forward function.
- To begin CD play (if CD(s) are loaded), press the CD control. The first track of the disc will begin playing. After that CD play will begin where it stopped last.



CD units are designed to play commercially pressed 12 cm (4.75 in) 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. Ball point pens may damage CDs. Please contact your dealer for further information.

Entertainment Systems

Rewind

The rewind control works in tape and CD modes.

- In tape mode, radio play will continue until rewind is stopped (with the TAPE control) or the beginning of the tape is reached.
- In CD mode, pressing the REW control for less than three seconds results in slow rewind. Pressing the control for more than three seconds results in fast rewind.



Fast forward

The fast forward control works in tape and CD modes.

- In the tape mode, tape direction will automatically reverse when the end of the tape is reached.
- In CD mode, pressing the control for less than three seconds results in slow forward action. Pressing the control for more than three seconds results in fast forward action.



Tape direction select

Press to play the alternate side of a tape.



Eject function

Press the control to stop and eject a tape.



Press the control to stop and eject a CD.



Entertainment Systems

Dolby® noise reduction

Dolby® noise reduction operates only in tape mode. Dolby® noise reduction reduces the amount of hiss and static during tape playback.

Press the  control to activate (and deactivate) Dolby® noise reduction.

Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.



Compression adjust

Compression adjust brings soft and loud CD passages together for a more consistent listening level.

Press the COMP control to activate and deactivate compression adjust.



Shuffle feature

The shuffle feature operates in CD mode and plays all tracks on the current disc in random order. If equipped with the CD changer, the shuffle feature continues to the next disc after all tracks on the current disc are played.

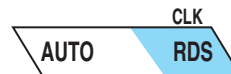
Press the SHUFFLE control to start this feature. Random order play will continue until the SHUFFLE control is pressed again.



Radio Data System (RDS) feature

Press the RDS control to activate the RDS (Radio Data System) feature. When engaged, the feature:

- Displays the radio station call letters.
- Displays the type of music format (jazz, country, rock).
- Searches for a particular type of music format by selecting the SEEK control.
- Allows traffic information broadcasts to be turned on and off with the SEL control.



Entertainment Systems

Use the SEL control to enable (ON) or disable (OFF) the feature.

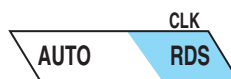


RDS traffic announcement

When set ON, this traffic feature will interrupt tape or CD play to play a traffic report broadcast from a FM RDS station.

To activate the traffic feature:

- Press the RDS control until TRAFFIC is displayed.



To see if any stations in your area are capable of broadcasting an RDS traffic alert, press SCAN or SEEK while TRAFFIC ON is displayed. The radio will then SCAN or SEEK only to traffic capable stations.

RDS select program type

- Press the RDS control until FIND program type is displayed.



- Use the SEL control to select the desired program type. With the feature ON (FIND program type), press the SEEK, AUTASET, or SCAN control to find only stations of the selected type from the following selections:



- Classic
- Country
- Info
- Jazz/R&B
- Religious
- Rock
- Soft
- Top 40

Entertainment Systems

RDS show

RDS sends information with the FM broadcast, including: station name, station type, and/or radio text. To view this information:

- With the RDS menu enabled, press the RDS control until SHOW is displayed.



- Use the SEL control to select TYPE, NAME, TEXT or NONE. When your radio is turned to a RDS station, RDS station TYPE, station NAME, or TEXT message will be displayed along with the frequency. Press SEL in order to scroll through the text messages.



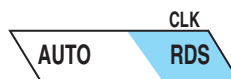
Mute mode

Press the control to mute the playing media. Press the control again to return to the playing media.



Setting the clock

Press the RDS control until SELECT HOUR is displayed.



- Press ◀ to decrease the hours.
- Press ▶ to increase the hours.



To set the minutes(s), press the RDS control until SELECT MIN is displayed.

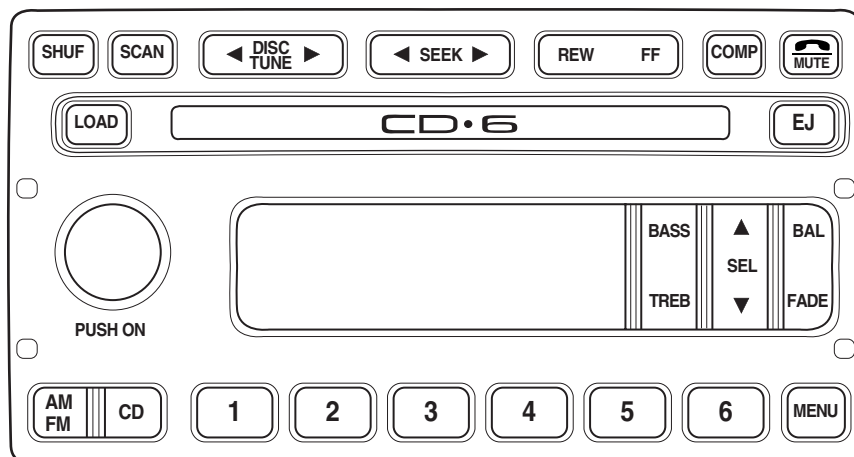


- ◀ to decrease minutes and
- ▶ to increase minutes.



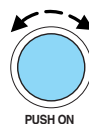
Entertainment Systems

PREMIUM AM/FM STEREO IN DASH SIX CD RADIO



Volume/power control

Press the control to turn the audio system on or off. Turn the control to raise or lower 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.

AM/FM select

The AM/FM select control works in radio and CD modes.



AM/FM select in radio mode

This control allows you to select AM or FM frequency bands. Press the control to switch between AM, FM1 or FM2 memory preset stations.

AM/FM select in CD mode

Press this control to stop CD play and begin radio play.

Tune/disc adjust

The tune control works in radio or CD mode.

Entertainment Systems

Tune adjust in radio mode

- Press ◀ to move to the next frequency down the band (whether or not a listenable station is located there). Hold the control to move through the frequencies quickly.
- Press ▶ to move to the next frequency up the band (whether or not a listenable station is located there). Hold for quick movement.



Disc adjust for CD mode

- Press ◀ to select the previous disc. (Play will begin on the first track of the disc unless shuffle mode is engaged.) Refer to *Shuffle feature* for more information. Hold the control to continue reversing through the discs.
- Press ▶ to select the next disc. Hold the control to fast-forward through the remaining discs.



Seek function

The seek function works in radio or CD mode.

Seek function in radio mode

- Press ◀ to find the next listenable station down the frequency band. SEEK DOWN will display.
- Press ▶ to find the next listenable station up the frequency band. SEEK UP will display.



Seek function in CD mode

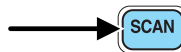
- Press ◀ to seek to the previous track of the current disc. If the beginning of the disc is reached, the CD player seeks to the beginning of the last track on the current disc and begins playing.
- Press ▶ to seek forward to the next track of the current disc. After the last track has been completed, the first track of the current disc will automatically replay.



Entertainment Systems

Scan function

The scan function works in radio or CD mode.



Scan function in radio mode

Press the SCAN control to hear a brief sampling of all listenable stations on the frequency band. Press the SCAN control again to stop the scan mode.

Scan function in CD mode

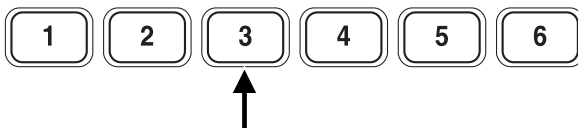
Press the SCAN control to hear a short sampling of all selections on the CD. (The CD scans in a forward direction, wrapping back to the first track at the end of the CD.) To stop on a particular selection, press the control again.

Radio station memory preset

The radio is equipped with six station memory preset controls. These controls can be used to select up to six preset AM stations and twelve FM stations (six in FM1 and six in FM2).

Setting memory preset stations

1. Select the frequency band with the AM/FM select control. Press the AM/FM control to toggle between AM, FM1, or FM2.
2. Press the SEEK control to access the next listenable station up or down the frequency band. Press the TUNE control to go up or down the listening band in individual increments.
3. Select a station. Refer to *Seek function* for more information on selecting a station.
4. Press and hold a memory preset control. The playing media will mute momentarily. When the sound returns, the station is held in memory on the control you selected. The display will read SAVED.



Autostore

Autostore allows you to set the strongest local radio stations without losing your original manually set preset stations. This feature is helpful on trips when you travel between cities with different radio stations.

Entertainment Systems

Starting autostore

1. Press and momentarily hold the AM/FM control.

2. AUTOSET will flash in the display as the frequency band is scrolled through.



3. When the six strongest stations are filled, the station stored in memory preset control 1 will start playing.

If there are fewer than six strong stations available on the frequency band, the remaining memory preset controls will all store the last strong station available.

To deactivate autostore and return to your audio system's manually set memory stations, press the AM/FM control again.

CD select

CD mode may be entered by pressing the CD control and the LOAD control. Load the CD into the audio system. The first track of the disc will begin playing. After that, CD play will begin where it stopped last.



If an alternative CD is desired, press the corresponding preset control (1–6) of a loaded CD, or press the TUNE control to access the other loaded CDs.

NO CD will display if the CD control is activated when there is not a CD present in the audio system.

If the CD control is pressed followed by with a preset number and that particular slot is empty, NO CD will display and the system will begin to play the next available disc.

CD units are designed to play commercially pressed 12 cm (4.75 in) 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. Ball point pens may damage CDs. Please contact your dealer for further information.

Entertainment Systems

Display description

Six circles are always lit in the digital display. These signify the six CD slots in the audio system. When a disc is loaded into a particular slot (1–6), the number inside that specific circle lights. If the circle is empty, there is no CD in that particular slot.

Load

The load feature allows you to load single CDs into the player internal to the radio.



This six disc CD player is equipped with a CD door. Compact discs should only be inserted into the player after the CD door has been opened by the player. Do not attempt to force the door open. Compact discs should only be loaded by pressing the LOAD control.

Press the LOAD control. (You can choose which slot will be loaded by pressing the desired preset number. If you do not choose a slot, the system will choose the next available one.) Wait until the CD door opens. Load the CD into the player. LOADING CD# is displayed. When the CD has been loaded, the door will close and the CD will begin to play. For example, to load a CD into slot 2, press the LOAD control and then press preset 2.

Auto load

This feature allows you to autoload up to 6 discs into the multi disc CD player internal to the radio.



Press and hold the LOAD control until AUTOLOAD # is displayed. The CD door will open. Load the desired discs, one at a time. The CD is loaded into position and the audio system will display CD#. Each time the CD door opens, INSERT CD# is displayed. The door will close and the player will move to the next slot after each disc has been loaded. The process is repeated until all 6 slots are full. The audio system plays the last CD loaded and the display is updated. If some slots are already full and autoloading is activated, the system will fill all empty slots.

Eject

Press the EJ control to stop and eject a CD. You can choose which CD will be ejected by pressing the



EJ control and the desired preset number (1–6). For example, to eject

Entertainment Systems

CD 2, press the EJ control and then press the preset 2 control. If you do not choose a specific CD, the player will eject the current CD.

If a CD is ejected and not removed from the door of the CD player, the player will automatically reload the CD. This feature may be used when the ignition is ON or OFF.

Auto eject

Press and momentarily hold the EJ control to engage auto eject. All CDs which are present in the player will



be ejected one at a time. If a CD is ejected and not removed from the door of the CD player, the player will automatically reload the CD. This feature may be used when the ignition is ON or OFF.

Rewind

The rewind control works in CD modes.



Press and hold the REW control until the desired selection is reached. If the beginning of the disc is reached, the CD will begin play at the first track. Release the control to disengage rewind mode.

When in rewind mode, your audio system will automatically lower the volume level of the playing media.

Fast forward

The fast forward control works in CD modes.



Press and hold the FF control until the desired selection is reached. If the end of the disc is reached, the CD will return to the first track. Release the control to disengage fast forward mode.

When in fast forward mode, your audio system will automatically lower the volume level of the playing media.

Shuffle feature

Press the SHUF control until the desired shuffle mode is displayed. The audio system will then engage the desired shuffle mode.



When engaged, the shuffle feature has two different modes: SHUFFLE DISC and SHUFFLE TRK.

Entertainment Systems

SHUFFLE DISC randomly plays tracks from all the discs presently in the audio system.

SHUFFLE TRK plays all the tracks on the current disc in random order.

Compression feature

The compression feature operates in CD mode and brings soft and loud CD passages together for a more consistent listening level.

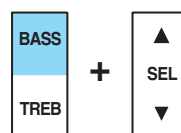
Press the COMP control until COMP ON is displayed.



Bass adjust

The bass adjust control allows you to increase or decrease the audio system's bass output.

Press the BASS control. Use the SEL control to increase or decrease the amount of bass.



Treble adjust

The treble adjust control allows you to increase or decrease the audio system's treble output.

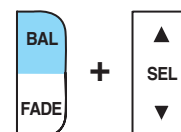
Press the TREB control. Use the SEL control to increase or decrease the amount of treble.



Speaker balance adjust

Speaker sound distribution can be adjusted between the right and left speakers.

Press the BAL control. Use the SEL control to adjust the sound between the left and right speakers.

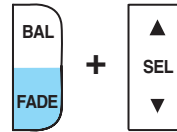


Entertainment Systems

Speaker fade adjust

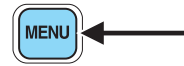
Speaker sound can be adjusted between the front and rear speakers.

Press the FADE control. Use the SEL control to adjust the sound between the front and rear speakers.



Menu mode

The MENU control allows you to access many different features within your audio system. There are three sets of menus available depending upon which mode or feature is activated.



While in FM mode, two menus are available. **If RDS is turned OFF**, you can access the following:

- SELECT HOURS — Refer to *Setting the clock*.
- SELECT MINUTES — Refer to *Setting the clock*.
- RDS OFF — Refer to *Radio data system feature*.

If RDS is turned ON, you can access the following:

- TRAFFIC ON/OFF-Refer to *Traffic announcements*.
- FIND type-Refer to *Program type*.
- SHOW (NAME, TYPE, NONE)- Refer to *Radio data system feature*.
- RDS ON— Refer to *Radio data system feature*.
- SELECT HOURS — Refer to *Setting the clock*.
- SELECT MINUTES —Refer to *Setting the clock*.

When in CD mode, you can access: SELECT HOURS, SELECT MINUTES or COMP ON/OFF.

SELECT HOURS, SELECT MINUTES— Allows you to adjust the hours and minutes. Refer to *Setting the clock*.

TRAFFIC ON/OFF— Traffic announcements can be programmed as local or distant. Refer to *Traffic announcements*.

RDS ON/OFF— This feature allows your audio system to receive text information from RDS-equipped FM radio stations. Refer to *Radio Data System feature*.

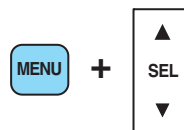
FIND type — Allows you to select your desired FM program type and search for that selection.

Entertainment Systems

SHOW — Allows you to select from NAME (displays the name of the radio station), TYPE (displays the RDS program type: rock, jazz, etc.), or NONE (deactivates the RDS display).

Traffic announcements

This feature allows you to hear traffic announcements. When in this mode, traffic announcements will interrupt radio and CD play.



When in FM mode and RDS is activated, press the MENU until TRAFFIC OFF displays. Press the SEL control to engage the feature. The display will read TRAFFIC ON.

This feature also allows you to control the volume of traffic announcements. With the display reading TRAFFIC ON, adjust the volume using the volume control to the desired level. The volume level will show at the bottom of the display. Interrupting traffic announcements will be at the selected volume level.

To disengage the feature, press the MENU control until TRAFFIC ON displays. Press the SEL control. The display will read TRAFFIC OFF.

RDS traffic seek feature

When in traffic mode, you can use the SEEK feature to seek up or down the listenable traffic capable frequencies.

With the RDS activated, press MENU until TRAFFIC ON is displayed. Press and hold the SEEK control until the desired selection is reached. The feature disengages when the control is released.

RDS traffic scan feature

When in traffic mode, you can use the SCAN feature to scan up the frequency band for listenable traffic capable frequencies.

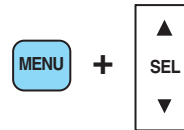
With the RDS activated, press the MENU control until TRAFFIC ON is displayed. Press the SCAN control. SCAN TRAFFIC will display. The audio system will scan to all traffic capable frequencies. If no valid stations are found after one pass, the scan function is cancelled and NOT FOUND displays.

Traffic announcements are not available in most U.S. markets.

Entertainment Systems

Radio data system (RDS) feature

This feature allows your audio system to receive text information from RDS-equipped FM radio stations.



To activate RDS:

- When in FM mode, press the MENU control until RDS OFF displays.
- Press the SEL control to engage this feature (RDS ON).

RDS features:

Once the RDS feature is on, press the MENU control to scroll through the following selections:

Traffic announcements

This feature allows you to hear traffic announcements while in CD mode. These announcements are broadcast by traffic capable RDS stations.

When in this mode, traffic announcements will interrupt radio and CD play.

- Press the MENU control until TRAFFIC is displayed.
- Press the SEL control to engage the feature. The display will read TRAFFIC ON.

This feature also allows you to control the volume of traffic announcements. With the display reading TRAFFIC ON, adjust the volume using the volume control to the desired level. The volume level will show at the bottom of the display. Interrupting traffic announcements will be at the selected volume level.

To disengage the feature, press the MENU control until TRAFFIC ON displays. Press the SEL control. The display will read TRAFFIC OFF.

Traffic announcements are not available in most U.S. markets.

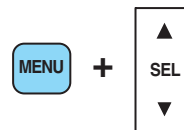
Program type

This feature allows you to search for RDS stations selectively by their program type.

Press the MENU control until FIND program type is displayed.

Use the SEL control to select the program type. With the feature on, use the SEEK or SCAN control to

find the desired program type from the following selections:



Entertainment Systems

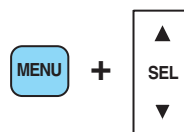
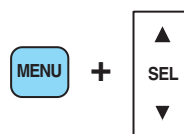
- Classic
- Country
- Info
- Jazz
- Oldies
- R & B
- Religious
- Rock
- Soft
- Top 40

Show

This feature allows you to select the type of RDS broadcast information the radio will regularly show in the display.

With RDS activated, press the MENU control until SHOW is displayed.

Use the SEL control to select TYPE (displays the RDS program type: rock, jazz, etc), NAME (displays the name of the radio station) or NONE (deactivates the RDS display).



Mute mode

Press the control to mute the playing media. Press the control again to return to the playing media.

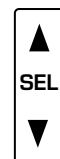


Setting the clock

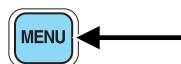
Press the MENU control until SELECT HOUR or SELECT MINUTE is displayed. (The menu mode must be engaged to enable clock mode).

Use the SEL control to manually set the time.

- Press ▲ to increase hours/minutes.
- Press ▼ to decrease hours/minutes.



Press the MENU control again to disengage the clock mode.



Entertainment Systems

CLEANING COMPACT DISCS

Inspect all discs for contamination before playing. If necessary, clean discs only with an approved CD cleaner and wipe from the center out to the edge. Do not use circular motion.

MP3 DISC QUALITY FACTORS

The MACH® MP3 music system is designed for use with CD-DA (regular audio discs), CD-R and CD-RW discs. Discs must comply with ISO 9660 and Joliet standards.

Several factors can effect disc playback quality:

- Disc capacity — Each disc contains about 650 MB of storage capacity. We do not recommend using high capacity discs containing 700MB of storage.
- Disc type — Some CD-RW discs may operate inconsistently and may cause an error message to appear. We recommend burning MP3 files onto CD-R discs.
- Disc finalization — The disc may be left open for the purpose of adding sessions to it at a later time, but be sure to close each session or the disc will not play.
- Bit rate — The player supports bit rates from 56–320 kbps, as well as variable bit rate MP3 files, but lower bit rates will have a noticeable effect on sound quality and are recommended only for speech or low fidelity music material. We recommend that you encode MP3 files using a high quality encoder.
- PC configuration — Encoding MP3 files requires intensive use of your computer's resources. Follow the PC configuration recommendations of the encoder software vendor. We recommend that you avoid running other software applications on your PC during MP3 encoding to avoid undesirable noise and distortion.

CD, MP3 AND CD PLAYER CARE

- Handle discs by their edges only. Never touch the playing surface.
- Do not expose discs to direct sunlight or heat sources for extended periods of time.
- Do not insert more than one disc into the slot of the CD player (if equipped).
- Always store discs out of direct sunlight. Excessive heat may damage or warp discs.

Entertainment Systems

- Use care when handling and playing CD-R and CD-RW discs, which are more susceptible to damage from heat, light and stress than are regular CDs.
- Always insert and remove a disc by holding the disc flat, with the playing surface facing down, in order to prevent damage to the disc or the player.
- Never insert any object other than a compact disc into the player, as doing so may damage the player and may cause injury to you.
- Do not disassemble the player. The laser used in disc playback is extremely harmful to the eyes.

CD units are designed to play commercially pressed 12 cm (4.75 in) 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. Ball point pens may damage CDs. Please contact your dealer for further information.

CLEANING CASSETTE PLAYER (IF EQUIPPED)

Clean the tape player head with a cassette cleaning cartridge after 10 to 12 hours of play in order to maintain the best sound and operation.

CASSETTE AND CASSETTE PLAYER CARE

- Use only cassettes that are 90 minutes long or less.
- Do not expose tapes to direct sunlight, high humidity, extreme heat or extreme cold. Allow tapes that may have been exposed to extreme temperatures to reach a moderate temperature before playing.
- Tighten very loose tapes by inserting a finger or pencil into the hole and turning the hub.
- Remove loose labels before inserting tapes.
- Do not leave tapes in the cassette player for a long time when not being played.

Entertainment Systems

RADIO FREQUENCY INFORMATION

The Federal Communications Commission (FCC) and the Canadian Radio and Telecommunications Commission (CRTC) establish the frequencies AM and FM stations may use for their broadcasts. Allowable frequencies are:

AM 530, 540–1600, 1610 kHz

FM 87.7, 87.9–107.7, 107.9 MHz

Not all frequencies are used in a given area.

RADIO RECEPTION FACTORS

Three factors can affect radio reception:

- **Distance/strength.** The further an FM signal travels, the weaker it is. The listenable range of the average FM station is approximately 40 km (24 miles). This range can be affected by “signal modulation.” Signal modulation is a process radio stations use to increase their strength/volume relative to other stations.
- **Terrain.** Hills, mountains and tall buildings between your vehicle’s antenna and the radio station signal can cause FM reception problems. Static can be caused on AM stations by power lines, electric fences, traffic lights and thunderstorms. Moving away from an interfering structure (out of its “shadow”) returns your reception to normal.
- **Station overload.** Weak signals are sometimes captured by stronger signals when you pass a broadcast tower. A stronger signal may temporarily overtake a weaker signal and play while the weak station frequency is displayed.

The audio system automatically switches to single channel reception if it will improve the reception of a station normally received in stereo.

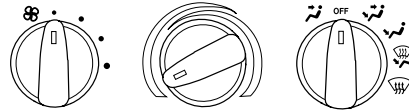
AUDIO SYSTEM WARRANTIES AND SERVICE

Refer to the *Warranty Guide* for audio system warranty information.

If service is necessary, see your dealer or a qualified technician.

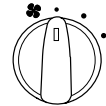
Climate Controls

HEATER ONLY SYSTEM (IF EQUIPPED)



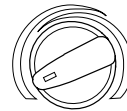
Fan speed control

Controls the volume of air circulated in the vehicle.



Temperature control knob

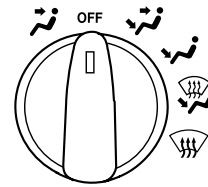
Controls the temperature of the airflow inside the vehicle. On heater-only systems, the air cannot be cooled below the outside temperature.



Mode selector control

Controls the direction of the airflow to the inside of the vehicle.

-  (Panel) – Distributes outside air through the instrument panel registers.
- OFF – Outside air is shut out and the fan will not operate. For short periods of time only, use this mode to prevent undesirable odors from entering the vehicle.
-  (Panel and floor) – Distributes outside air through the instrument panel registers and the floor ducts.
-  (Floor) – Distributes outside air through the floor ducts.
-  (Floor and defrost) – Distributes outside air through the floor ducts and the windshield defroster ducts.
-  (Defrost) – Distributes outside air through the windshield defroster ducts. It can be used to clear ice or fog from the windshield.



Climate Controls

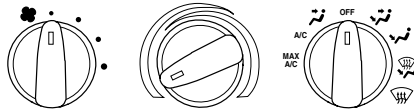
Operating tips

- In humid weather, place the climate control system in Defrost () before driving. This will reduce fogging on your windshield. Once the windshield has been cleared, select any desired position.
- To reduce humidity buildup inside the vehicle, do not drive with the climate control system in the OFF position.
- Under normal weather conditions, your vehicle's climate control system should be left in any position other than OFF position when the vehicle is parked. This allows the vehicle to "breathe" through the outside air inlet duct.
- Under snowy or dirty weather conditions, your vehicle's climate control system should be left in the OFF position when the vehicle is parked. This allows the climate control system to be free from contamination of outside pollutants.
- Do not place objects under the front seat which may interfere with the airflow to the rear seats (if equipped).
- Remove any snow, ice, or leaves from the air intake area (at the base of the windshield and underneath the hood).
- Do not place objects over the defroster outlets. These objects may block airflow and reduce your visibility through the windshield. Avoid placing small objects on top of the instrument panel. These objects can fall into the defroster outlets and block airflow, in addition to, damaging your climate control system.



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)



Climate Controls

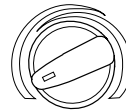
Fan speed control

Controls the volume of air circulated in the vehicle.



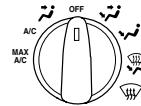
Temperature control knob

Controls the temperature of the airflow inside the vehicle.



Mode Selector Control

Controls the direction of the airflow to the inside of the vehicle.



The air conditioning compressor can operate in all modes except  and . However, the air conditioning will only function if the outside temperature is about 6°C (43°F) or higher.

Since the air conditioner removes considerable moisture from the air during operation, it is normal if clear water drips on the ground under the air conditioner drain while the system is working and even after you have stopped the vehicle.

- MAX A/C – Uses recirculated air to cool the vehicle. MAX A/C is noisier than A/C but more economical and will cool the inside of the vehicle faster. Airflow will be from the instrument panel registers. This mode can also be used to prevent undesirable odors from entering the vehicle.
- A/C – Uses outside air to cool the vehicle. It is quieter than MAX A/C but not as economical. Airflow will be from the instrument panel registers.
-  (Panel) – Distributes outside air through the instrument panel registers. However, the air will not be cooled below the outside temperature because the air conditioning does not operate in this mode.

Climate Controls

- OFF – Outside air is shut out and the fan will not operate. For short periods of time only, use this mode to prevent undesirable odors from entering the vehicle.
-  (Panel and floor) – Distributes outside air through the instrument panel registers and the floor ducts. Heating and air conditioning capabilities are provided in this mode. For added customer comfort, when the temperature control knob is anywhere in between the full hot and full cold positions, the air distributed through the floor ducts will be slightly warmer than the air sent to the instrument panel registers.
-  (Floor) – Distributes outside air through the floor ducts. However, the air will not be cooled below the outside temperature because the air conditioning does not operate in this mode.
-  (Floor and defrost) – Distributes outside air through the windshield defroster ducts and the floor ducts. Heating and air conditioning capabilities are provided in this mode. For added customer comfort, the air distributed through the floor ducts will be slightly warmer than the air sent to the windshield defroster ducts. If the temperature is about 6°C (43°F) or higher, the air conditioner will automatically dehumidify the air to reduce fogging.
-  (Defrost) – Distributes outside air through the windshield defroster ducts. It can be used to clear ice or fog from the windshield. If the temperature is about 6°C (43°F) or higher, the air conditioner will automatically dehumidify the air to reduce fogging.

Operating tips

- In humid weather conditions, place the climate control system in Defrost mode before driving. This will reduce fogging on your windshield. Once the windshield has been cleared, operate the climate control system as desired.
- To reduce humidity buildup inside the vehicle in cold weather conditions, don't drive with the climate control system in the OFF or MAX A/C position.
- To reduce humidity buildup inside the vehicle in warm weather conditions, don't drive with the climate control system in the OFF position.
- Under normal weather conditions, your vehicle's climate control system should be left in any position other than the MAX A/C or OFF when the vehicle is parked. This allows the vehicle to "breathe" through the outside air inlet duct.

Climate Controls

- Under snowy or dirty weather conditions, your vehicle's climate control system should be left in the OFF position when the vehicle is parked. This allows the climate control system to be free from contamination of outside pollutants.
- If your vehicle has been parked with the windows closed during warm weather conditions, the air conditioner will perform more efficiently in cooling the vehicle if driven for two or three minutes with the windows open. This will force most of the hot, stale air out of the vehicle. Once the vehicle has been "aired out", operate the climate control system as desired.
- Do not put objects under the front seat which may interfere with the airflow to the rear seats (if equipped).
- Remove any snow, ice or leaves from the air intake area (at the bottom of the windshield and underneath the hood).
- Do not place objects over the defroster outlets. These objects can block airflow and reduce visibility through your windshield. Avoid placing small objects on top of the instrument panel. These objects may fall down into the defroster outlets and block airflow, in addition to, damaging the climate control system.

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

1. Select the position that distributes air through the Panel and Floor.
2. Set the temperature control to full heat.
3. Set the fan speed to full fan.
4. Direct the outer panel vents towards the side windows.
5. To increase airflow to the outer panel vents, close the central panel vents.



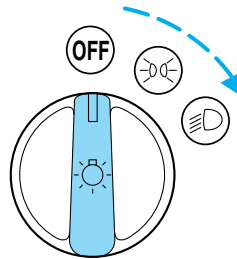
Do not place objects on top of the instrument panel as these objects may become projectiles in a collision or sudden stop.

Lights

HEADLAMP CONTROL

Rotate the headlamp control to the first position to turn on the parking lamps.

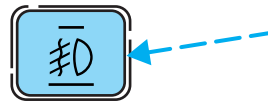
Rotate to the second position to turn on the headlamps.



Foglamp control (if equipped)

The foglamps can be turned on when 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)

Turns the headlamps on with a reduced output.

To activate:

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

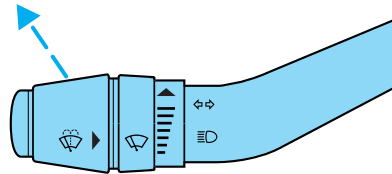


Always remember to turn on your headlamps at dusk or during inclement weather. The Daytime Running Lamp (DRL) system does not activate with your tail lamps and generally may not provide adequate lighting during these conditions. Failure to activate your headlamps under these conditions may result in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

Lights

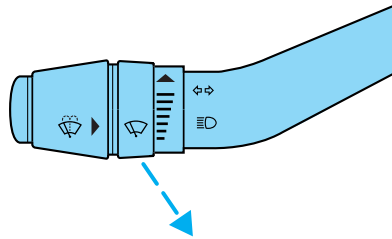
High beams

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.

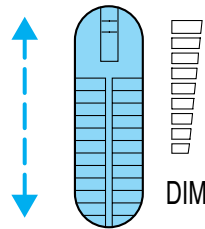


PANEL DIMMER CONTROL

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

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

Move the control to the full down position, past detent, to prevent the interior lights from illuminating when the doors are opened.



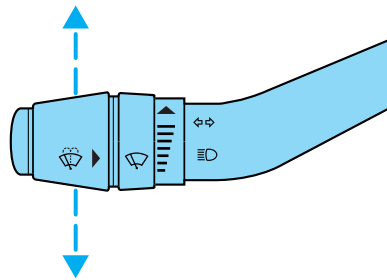
AIMING THE HEADLAMPS

The headlamps on your vehicle are properly aimed at the assembly plant. If your vehicle has been in an accident the alignment of your headlamps should be checked by a qualified service technician.

Lights

TURN SIGNAL CONTROL ⇐⇒

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

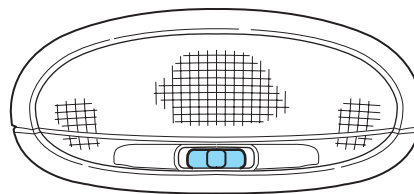


INTERIOR LAMPS

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.



The reading lamps can be turned on by moving the switch on the dome lamp to either the left or the right.

BULBS

Replacing exterior bulbs

Check the operation of the following lamps frequently:

- | | |
|------------------------|----------------------|
| • Headlamps | • Turn signal lamps |
| • Foglamps | • License plate lamp |
| • High-mount brakelamp | • Tail lamps |
| • Brakelamps | • Back-up lamps |
| • Parking lamps | |

Do not remove lamp bulbs unless they can be replaced immediately with new ones. If a bulb is removed for an extended period of time, contaminants may enter the lamp housings and affect lamp performance.

Lights

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/side marker lamps (front)	2	3457AK
	2	194
Headlamps	2	9007
Foglamps (if equipped)	2	9145
Hi-mount brakelamp	1	922
Cargo lamps	2	906
Rear stop/turn/tail lamps	2	3157
Rear license plate lamps	2	194
Backup lamp	2	3156
Dome lamp	1	912
Glove compartment	1	194
Map/dome-SuperCab (if equipped)	2	904
Map/dome-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 the following interior bulbs frequently:

- Interior overhead lamp
- Map lamp

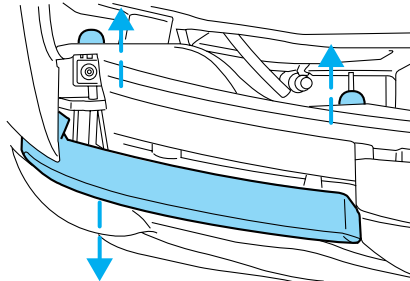
For bulb replacement, see a dealer or qualified technician.

Lights

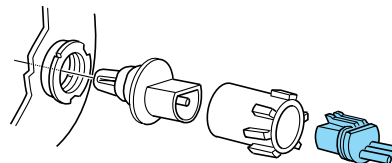
Replacing headlamp bulbs

To remove the headlamp bulb:

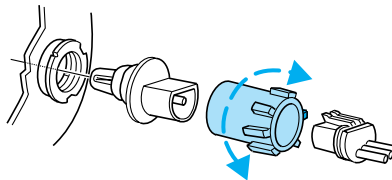
1. Make sure headlamp switch is in OFF position, then open the hood.
2. Remove two screws and cover (if equipped).
3. At the back of the headlamp, pry up the two retainer pins to release the headlamp assembly from the vehicle and pull headlamp forward.



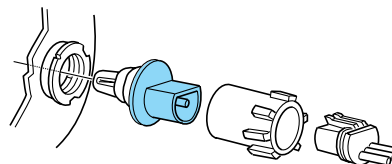
4. Disconnect the electrical connector from the bulb by pulling rearward.



5. Remove the bulb retaining ring by rotating it counterclockwise (when viewed from the rear) to free it from the bulb socket, and slide the ring off the plastic base. Keep the ring to retain the new bulb.



6. Without turning, remove the old bulb by gently pulling it straight back out of the lamp assembly.



Lights

To install the new bulb:

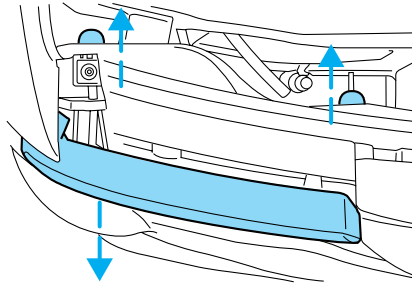


Handle a halogen headlamp bulb carefully and keep out of children's reach. Grasp the bulb only by its plastic base and do not touch the glass. The oil from your hand could cause the bulb to break the next time the headlamps are operated.

1. With the flat side of the bulb's plastic base facing upward, insert the glass end of the bulb into the lamp assembly. You may need to turn the bulb left or right to align the grooves in the plastic base with the tabs in the lamp assembly. When the grooves are aligned, push the bulb into the lamp assembly until the plastic base contacts the rear of the lamp assembly.
2. Install the bulb retaining ring over the plastic base until it contacts the rear of the socket by rotating clockwise until you feel a "stop."
3. Install the electrical connector into the plastic base until it snaps, locking it into position.
4. Install the headlamp on vehicle, push rearward and secure with two retainer pins.
5. Install the cover with two screws (if equipped).
6. Turn the headlamps on and make sure they work properly. If the headlamp was correctly aligned before you changed the bulb, you should not need to align it again.

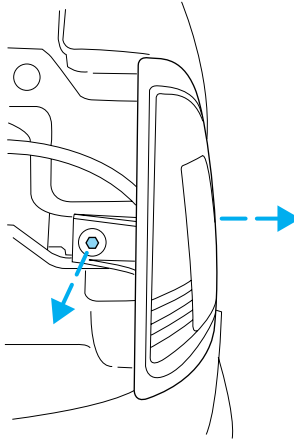
Replacing front side marker bulbs

1. Turn the headlamp switch to the OFF position and then open the hood.
2. Remove two screws and cover (if equipped).
3. 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

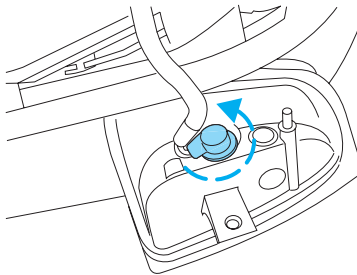
4. Remove screw(s) from lamp assembly and disengage lamp assembly (it has a snap fit).



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

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

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



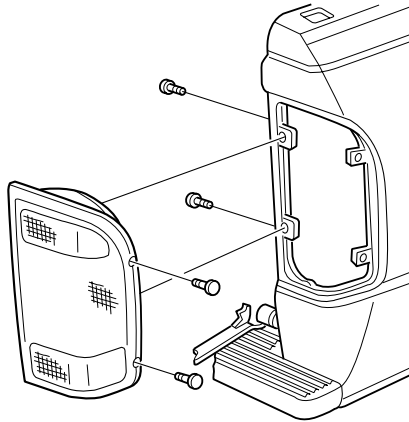
Install the new lamp in reverse order.

Lights

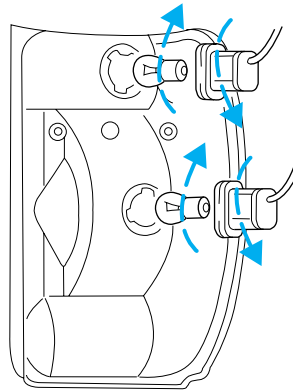
Replacing tail lamp/backup lamp bulbs

The tail lamp/backup lamp bulbs are located in the same portion of the tail lamp assembly, one just below the other. Follow the same steps to replace either bulb:

1. Open the tailgate to expose the lamp assemblies.
2. Remove the four screws and the lamp assembly from vehicle.

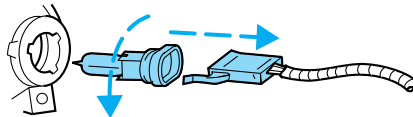


3. Rotate bulb socket counterclockwise turn and remove from lamp assembly.
4. Carefully pull the bulb straight out of the socket and push in the new bulb.
5. Install the bulb socket in lamp assembly by turning clockwise.
6. Install the lamp assembly and secure with four screws.



Replacing foglamp bulbs

1. Remove the bulb socket from the foglamp by turning counterclockwise.
2. Disconnect the electrical connector from the foglamp bulb.
3. Connect the electrical connector to the new foglamp bulb.
4. Install the bulb socket in the foglamp turning clockwise.



Lights

Replacing high-mount brakelamp and cargo lamp bulbs

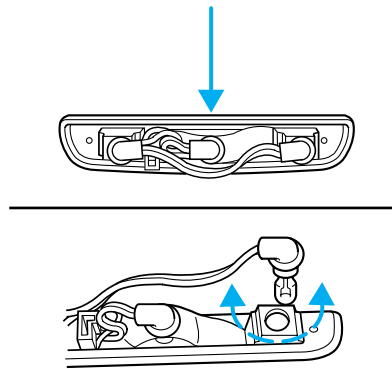
The replacement of the high-mount brakelamp bulb and cargo lamp bulb is basically the same. This procedure covers the high-mount brakelamp bulb.

To remove the brakelamp assembly:

1. 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 and push in the new bulb.

To install the brakelamp assembly:

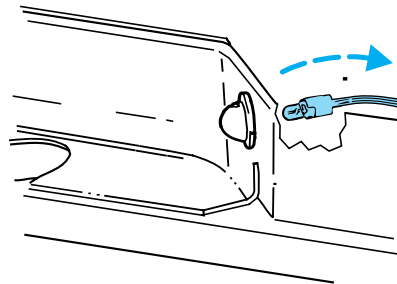
1. Install the bulb socket into the lamp assembly by rotating clockwise.
2. Install the lamp assembly on the vehicle and secure with two screws.



Replacing license plate lamp bulbs

The license plate bulbs are located behind the rear bumper. To change the license plate lamp bulbs:

1. Reach behind the rear bumper to locate the bulb socket.
2. Twist the socket counterclockwise and remove.
3. Pull out the old bulb from socket and push in the new bulb.
4. Install the bulb socket in lamp assembly by turning it clockwise.



Driver Controls

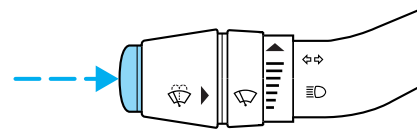
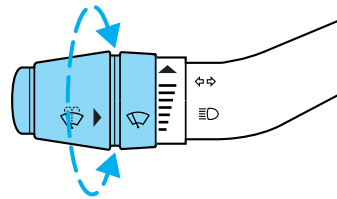
WINDSHIELD WIPER/WASHER CONTROLS



Rotate the windshield wiper control to the desired interval, low or high speed position.

The bars of varying length are for intermittent wipers. When in this position rotate the control upward for fast intervals and downward for slow intervals.

Push (tap) the end of the stalk briefly for a single swipe (no wash). Push and hold for three swipes with wash. Push and hold for a longer wash (up to ten seconds).



Windshield wiper blades

Check the wiper blades for wear at least twice a year or when they seem less effective. Substances such as tree sap and some hot wax treatments used by commercial car washes reduce the effectiveness of wiper blades.

Checking the wiper blades

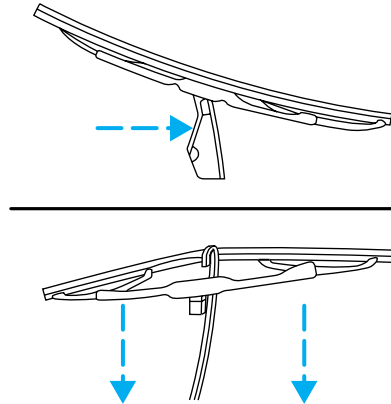
If the wiper blades do not wipe properly, clean both the windshield and wiper blades using undiluted windshield wiper solution or a mild detergent. Rinse thoroughly with clean water. To avoid damaging the blades, do not use fuel, kerosene, paint thinner or other solvents.

Driver Controls

Changing the wiper blades

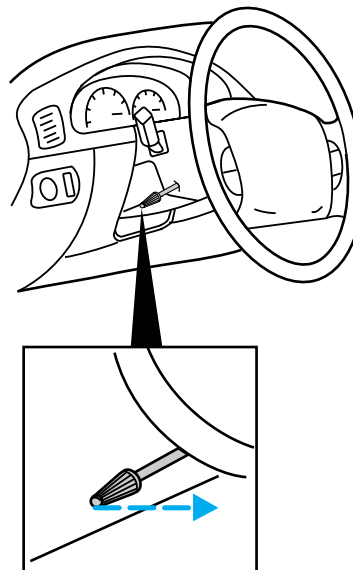
To replace the wiper blades:

1. Pull the wiper arm away from the windshield and lock into the service position.
2. 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.
3. Attach the new wiper to the wiper arm and press it into place until a click is heard.



TILT STEERING WHEEL (IF EQUIPPED)

Pull the tilt steering control toward you to move the steering wheel up or down. Hold the control while adjusting the wheel to the desired position, then release the control to lock the steering wheel in position.

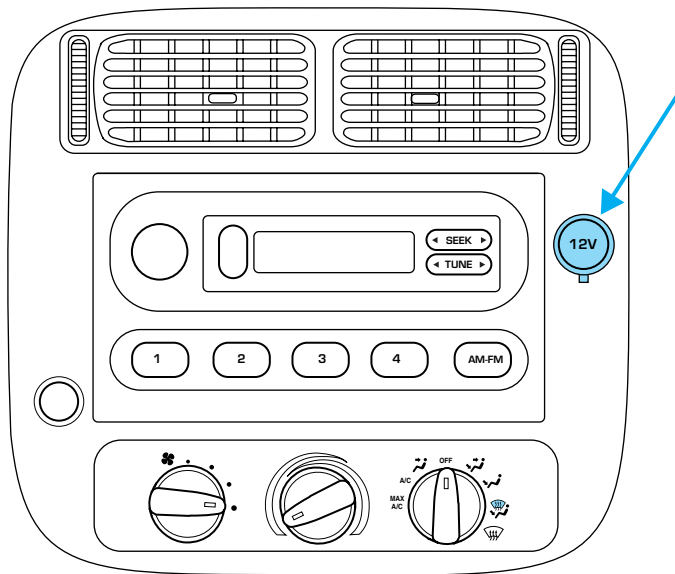


Driver Controls



Never adjust the steering wheel when the vehicle is moving.

AUXILIARY POWER POINT 12V



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

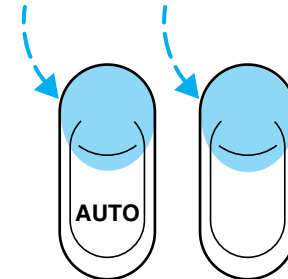
The auxiliary power point is located on the instrument panel. This outlet should be used in place of the cigarette lighter for optional electrical accessories.

Driver Controls

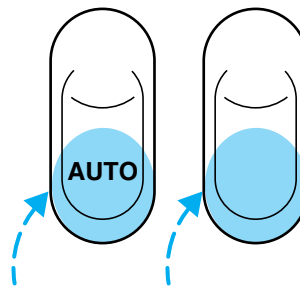
POWER WINDOWS (IF EQUIPPED)

Press and hold the rocker switches to open and close windows.

- Press the top portion of the rocker switch to close.



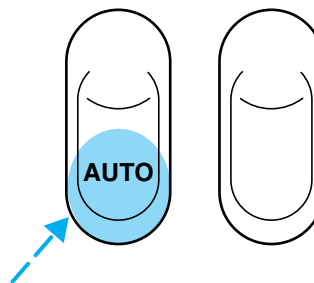
- Press the bottom portion of the rocker switch to open.



One touch down

- Press AUTO completely down and release quickly. The driver's window will open fully. Depress again to stop window operation.

One touch down can be deactivated during operation by pushing down on the top part of the driver power window control.

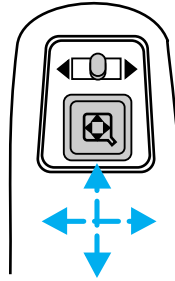


Driver Controls

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.



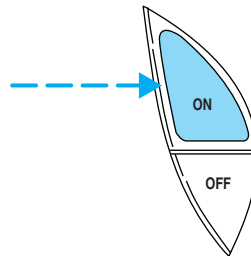
SPEED CONTROL (IF EQUIPPED)

To turn speed control on

- Press ON.

Vehicle speed cannot be controlled until the vehicle is traveling at or above 48 km/h (30 mph).

Do not shift the gearshift lever into N (Neutral) with the speed control on.



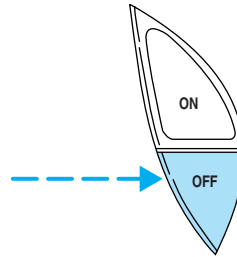
Do not use the speed control in heavy traffic or on roads that are winding, slippery, or unpaved.

Driver Controls

To turn speed control off

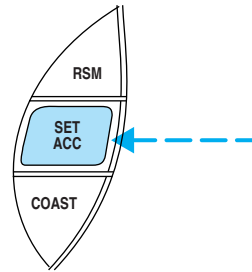
- Press OFF or
- Turn off the vehicle ignition.

Once speed control is switched off, the previously programmed set speed will be erased.



To set a speed

- Press SET ACC. For speed control to operate, the speed control must be ON and the vehicle speed must be greater than 48 km/h (30 mph).



If you drive up or down a steep hill, your vehicle speed may vary momentarily slower or faster than the set speed. This is normal.

Speed control cannot reduce the vehicle speed if it increases above the set speed on a downhill. If your vehicle speed is faster than the set speed while driving on a downhill, you may want to shift to the next lower gear or apply the brakes to reduce your vehicle speed.

If your vehicle slows down more than 16 km/h (10 mph) below your set speed on an uphill, your speed control will disengage. This is normal. Pressing RSM will re-engage it.

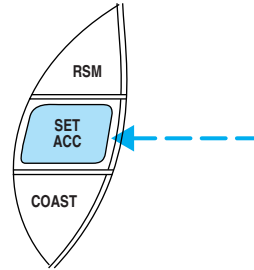


Do not use the speed control in heavy traffic or on roads that are winding, slippery, or unpaved.

Driver Controls

To set a higher set speed

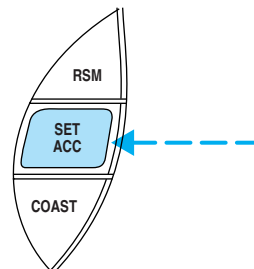
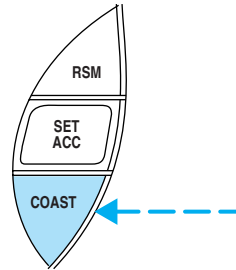
- Press and hold SET ACC. Release the control when the desired vehicle speed is reached or
- Press and release SET ACC to operate the Tap-Up function. Each press will increase the set speed by 1.6 km/h (1 mph) or
- Accelerate with your accelerator pedal. When the desired vehicle speed is reached, press and release SET ACC.



You can accelerate with the accelerator pedal at any time during speed control usage. Releasing the accelerator pedal will return your vehicle to the previously programmed set speed.

To set a lower set speed

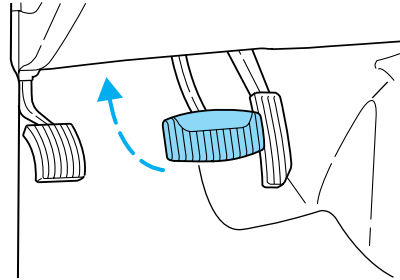
- Press and hold COAST. Release the control when the desired speed is reached or
- Press and release COAST to operate the Tap-Down function. Each press will decrease the set speed by 1.6 km/h (1 mph) or
- Depress the brake pedal. When the desired vehicle speed is reached, press SET ACC.



Driver Controls

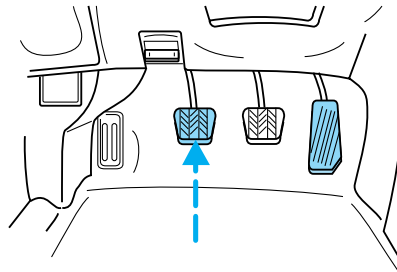
To disengage speed control

- Depress the brake pedal or

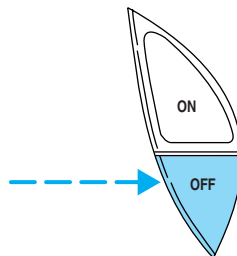


- Depress the clutch pedal (if equipped).

Disengaging the speed control will not erase the previously programmed set speed. Fully depressing the clutch pedal may cause a flare in engine RPM as the throttle is returned to idle. This is normal.



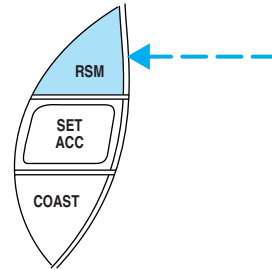
Pressing OFF will erase the previously programmed set speed.



Driver Controls

To return to a previously set speed

- Press RSM. For RSM to operate, the vehicle speed must be faster than 48 km/h (30 mph).



Indicator light

This light comes on when either the SET ACCEL or RES controls are pressed. It turns off when the speed control OFF control is pressed, the brake or clutch is applied or the ignition is turned to the OFF position.

**SPEED
CONT**

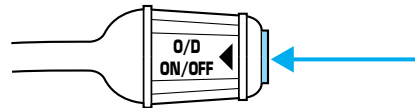
OVERDRIVE CONTROL (IF EQUIPPED)

Activating overdrive

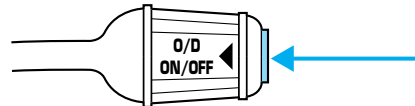
D (Overdrive) is the normal drive position for the best fuel economy. The overdrive function allows automatic upshifts and downshifts through all available gears.

Deactivating overdrive

Press the Transmission Control Switch (TCS) located on the end of the gearshift lever. The Transmission Control Indicator Light (TCIL) will illuminate on the instrument cluster. The transmission will operate in all gears except overdrive.



To return to normal overdrive mode, press the Transmission Control Switch again. The TCIL will no longer be illuminated.



When you shut off and re-start your vehicle, the transmission will automatically return to normal **D** (Overdrive) mode.

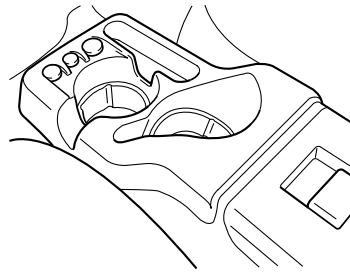
Driver Controls

For additional information about the gearshift lever and the transmission control switch operation refer to the *Automatic Transmission Operation* section of the *Driving* chapter.

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



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

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.

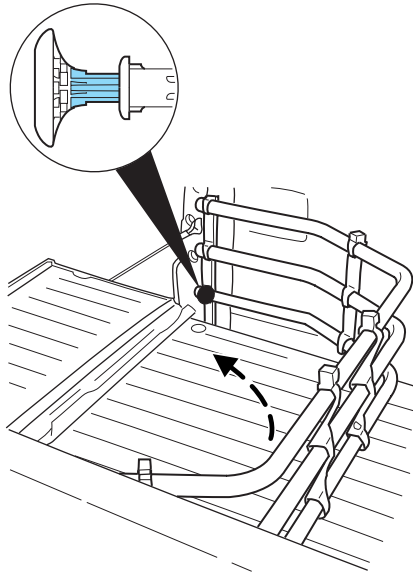
BED EXTENDER (IF EQUIPPED)

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

Driver Controls

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.



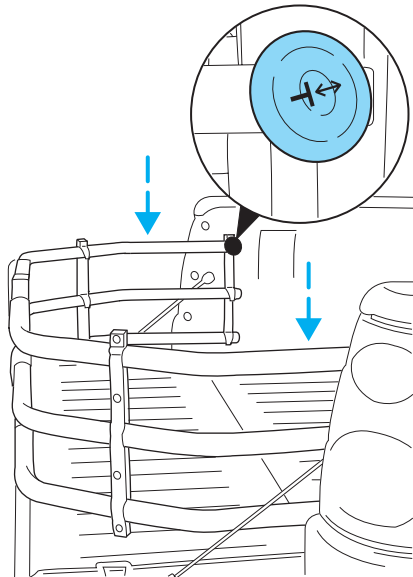
4. Evenly push down on the extender and push the round knobs in on each side locking it in place.

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 46 kg (100 lbs.) on the tailgate.



Driver Controls

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

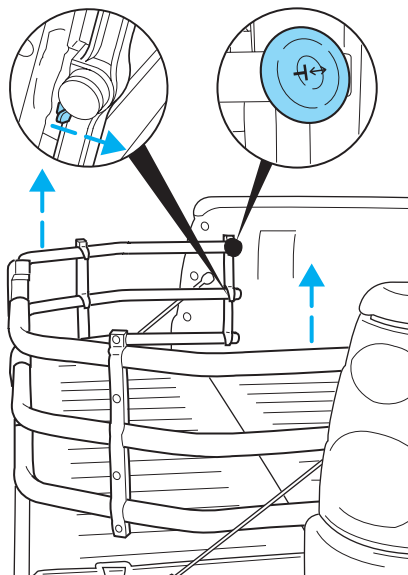
To remove the bed extender:

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.

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

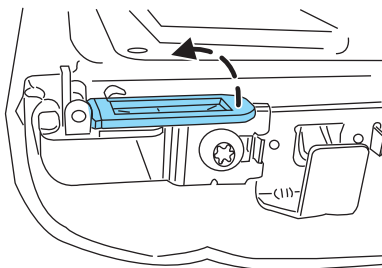
To install the bed extender, follow the removal procedure in reverse order.



TAILGATE LOCK (IF EQUIPPED)

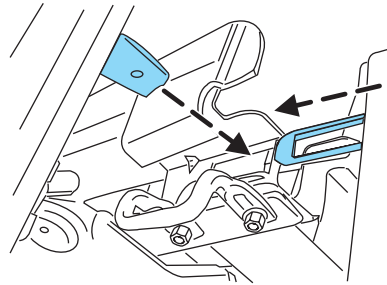
Your vehicle may be equipped with a tailgate lock designed to prevent theft of the tailgate.

- Open the rear tonneau cover.
- Lower the tailgate.
- Move the lock lever to the up position on each side of the tailgate.



Driver Controls

- Raise the tailgate and close securely.
- Lower the tonneau on to the pickup box to lock the tailgate.



TONNEAU COVER (IF EQUIPPED)

The tonneau cover has been designed to maximize fuel economy and should be fully installed whenever possible.

The rear panel can be folded in half and secured behind the cab, or the whole cover can be removed completely from the vehicle.

To avoid damage to the cover, do not operate the vehicle unless the cover is fully installed, or securely stowed.

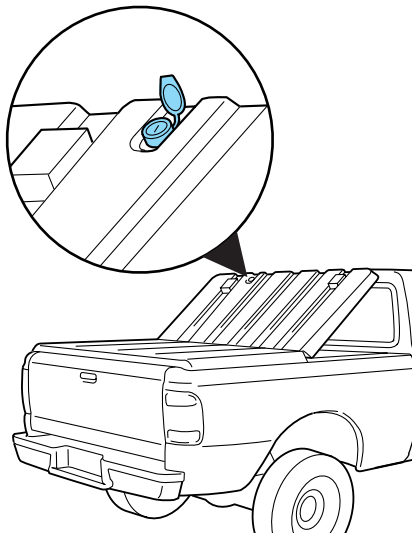
To open the front panel:

- Open the lock cover and unlock the front or rear panel.
- Lift the panel to access items in the pickup box.

The panels will automatically lock when lowered onto the pickup box.

- To close, lower the front or rear panel down on the pickup box.

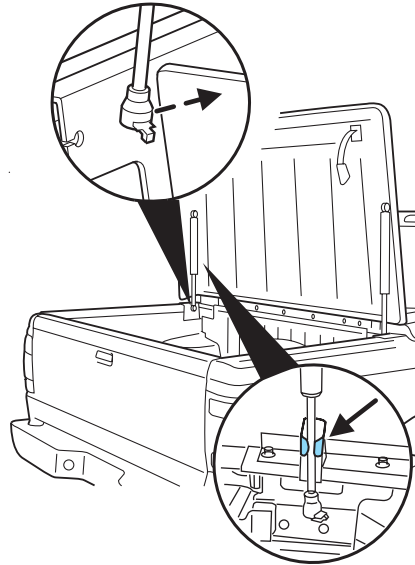
Do not drive with front panel unlocked or folded on top of the rear panel.



Driver Controls

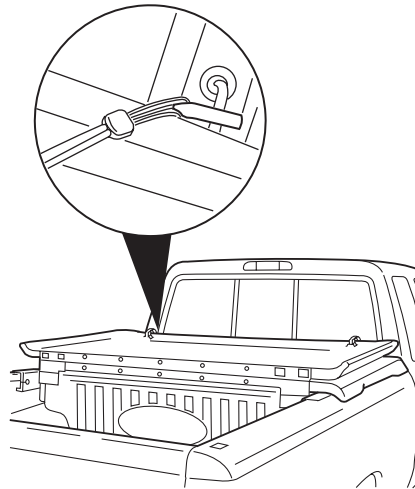
To stow the rear panel:

- Before driving with the tonneau cover open, stow the rear panel.
- Release two cylinder clips and disconnect the hydraulic cylinders from the pickup box and secure them in the clips on the panel.



- Lift the rear panel up, lay it on top of the front panel and secure it to the hooks on the front panel with the tiedown cords.

Failure to secure the rear panel could damage the tonneau cover or vehicle.



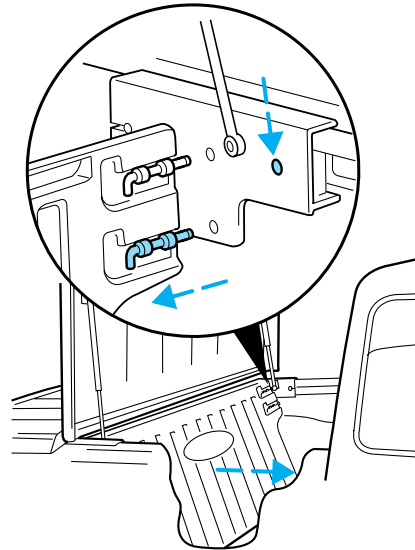
Driver Controls

The cargo divider is designed to divide your pickup box in half or rotate 90° to allow you full use of the pickup box.

To rotate the cargo divider 90°:

- Open front panel.
- Pull the lower release lever out on each side of the cargo divider to unlatch from the pickup box.
- Rotate the divider 90° parallel with the tonneau cover and secure it to the pickup box with the lower release levers.

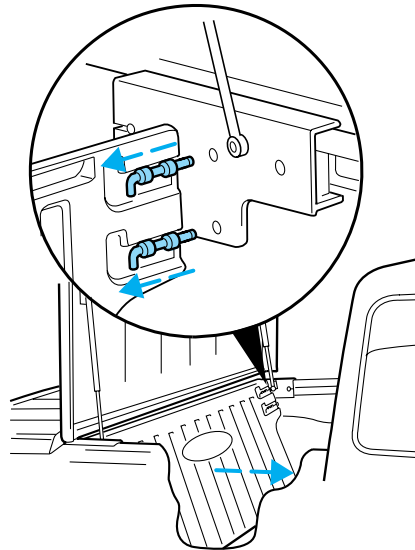
To rotate the cargo divider back, follow the procedure in reverse order.



To remove the cargo divider:

- Open the front panel.
- Pull two release levers out on each side of the cargo divider from the pickup box and remove.

For installation of the cargo divider, follow the removal procedure in reverse order.

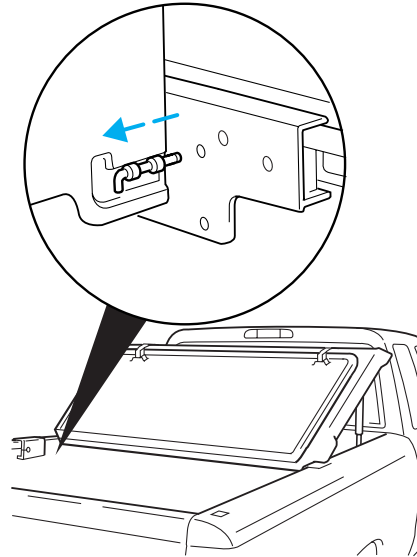


Driver Controls

To remove the tonneau cover:

The tonneau cover needs to be supported during removal. This is a two person operation.

- Remove the cargo divider, refer to *To remove the cargo divider* in this procedure.
- Open and support the front panel.
- Release two cylinder clips and disconnect the hydraulic cylinders from the pickup box and secure them in the clips on the front panel. Close the front panel.
- Stow the rear panel on top of the front panel, refer to *To stow the rear panel* in this procedure.
- Pull two release levers on the underside of the tonneau cover from the pickup box and remove the tonneau cover.



For installation of the tonneau cover, reverse the removal procedure.

Locks and Security

KEYS

The key operates all locks on your vehicle. In case of loss, replacement keys are available from your dealer.

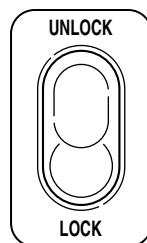
You should always carry a second key with you in a safe place in case you require it in an emergency.

Refer to *SecuriLock™ Passive Anti-Theft System* for more information.

POWER DOOR LOCKS (IF EQUIPPED)

If the door does not unlock when the top of the control is pressed, see *Interior power door unlock disable feature* in the *Remote entry section* in this chapter.

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



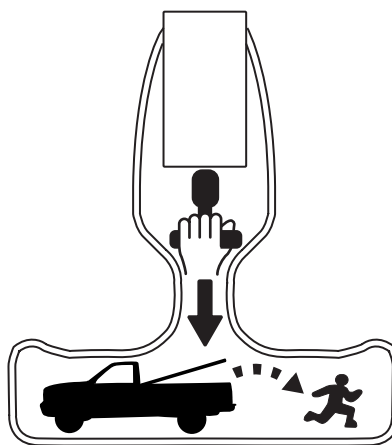
INTERIOR TONNEAU COVER RELEASE (IF EQUIPPED)

Your vehicle is equipped with a mechanical interior tonneau cover release handle that provides a means of escape for children and adults in the event they become locked inside the pickup box.

Adults are advised to familiarize themselves with the operation and location of the release handle.

To open the tonneau cover from the inside, pull the “T” shaped handle and push up on the tonneau cover panel. The handle is composed of a material that will glow for hours in darkness following brief exposure to ambient light.

The “T” shaped handle is located on the tonneau cover panel.



Locks and Security



Keep vehicle doors and tonneau cover locked and keep keys and remote transmitters out of a child's reach. Unsupervised children could lock themselves in the box and risk injury. Children should be taught not to play in vehicles.



On hot days, the temperature in the pickup box can rise very quickly. Exposure of people or animals to these high temperatures for even a short time can cause death or serious heat-related injuries, including brain damage. Small children are particularly at risk.

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.

Depending upon when your vehicle was manufactured, the remote entry features may operate differently:

- the remote entry features will only operate with the ignition in the LOCK position. Additionally, this system will disable the power door lock controls, which will remain inoperative until the vehicle is disarmed. Or,
- the remote entry features, with the exception of the PANIC control, will operate in all ignition positions; the PANIC alarm only operates with the ignition in the LOCK position.

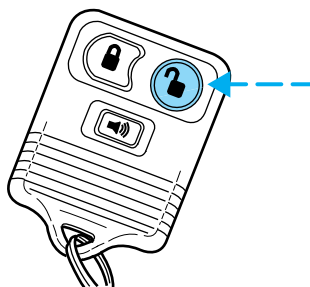
If there is any potential remote keyless entry problem with your vehicle, ensure **ALL remote entry transmitters** are brought to the dealership, to aid in troubleshooting.

Locks and Security

Unlocking the doors

Press this control to unlock the driver's door. The interior lamps will illuminate.

Press the control a second time within five seconds to unlock all doors.

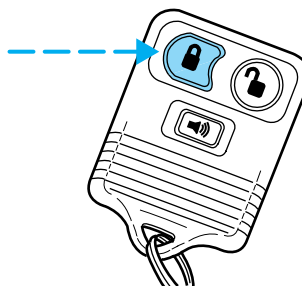


Locking the doors

Press this control to lock all doors.

To confirm all doors are closed and locked, press the control a second time within five seconds. The doors will lock again, the horn will chirp and the lamps will flash.

If any of the doors are ajar, the horn will make two quick chirps, reminding you to properly close all doors.



Power door lock disable feature

This feature will help protect your vehicle from unauthorized entry.

The UNLOCK function on the power door lock control will not operate with the ignition in the OFF position and twenty seconds after the doors are closed and electronically locked by the remote entry transmitter or power door lock control (if pressed while the door was open).

The UNLOCK function will operate again after you unlock the vehicle using the remote entry transmitter, turn the ignition to ON, or open the door from inside of the vehicle.

Deactivating/activating power door lock disable feature

This feature may be deactivated/activated by an authorized dealer.

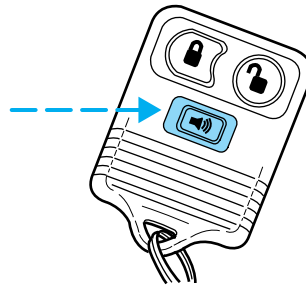
Locks and Security

Sounding a panic alarm

Press this control to activate the alarm.

To deactivate the alarm, press the control again or turn the ignition to ACC or ON.

Panic alarm will only operate with the ignition in the OFF position.



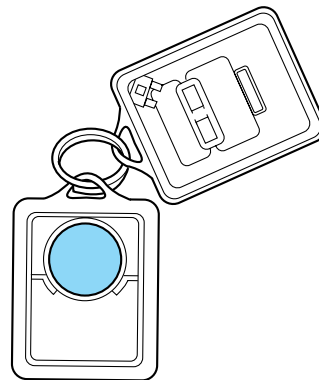
Replacing the battery

The transmitter is powered by one coin type three-volt lithium battery CR2032 or equivalent. Typical operating range will allow you to be up to 10 meters (33 feet) away from your vehicle. A decrease in operating range can be caused by:

- Weather conditions
- Nearby radio towers
- Structures around the vehicle
- Other vehicles parked next to the vehicle

To replace the battery:

1. Twist a thin coin between the two halves of the transmitter near the key ring. DO NOT TAKE THE FRONT PART OF THE TRANSMITTER APART.
2. Place the positive (+) side of new battery in the same orientation. Refer to the diagram inside the transmitter unit.
3. Snap the two halves back together.

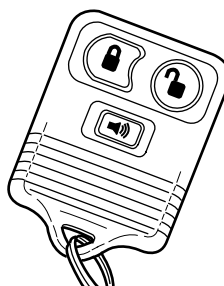


Locks and Security

Replacing lost transmitters

If a remote transmitter has been lost and you would like to remove it from the vehicle's memory, or you would like to purchase additional remote transmitters and have them programmed to your vehicle:

- Take **all** your vehicle's transmitters to your dealer for programming, or
- Perform the programming procedure yourself.

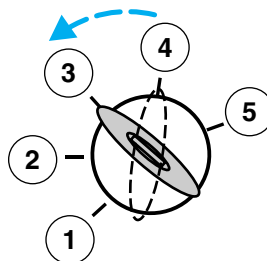


Programming remote transmitters

It is necessary to have **all** (maximum of four — original and/or new) of your remote transmitters available prior to beginning this procedure.

To program the transmitters yourself:

- Place the key in the ignition and turn from 2 (LOCK) to 3 (OFF) and cycle between 3 (OFF) and 4 (ON) eight times in rapid succession (within 10 seconds) with the eighth turn ending in the 4 (ON) position. The doors will lock/unlock to confirm that programming mode has been entered.
- Within 20 seconds, program a remote transmitter by pressing any button on a transmitter. The doors will lock/unlock to confirm that the remote transmitter has been programmed. (If more than 20 seconds pass before pressing a remote transmitter button, the programming mode will exit and the procedure will have to be repeated.)
- Repeat the previous step to program additional remote transmitters. The doors will lock/unlock to confirm that each remote transmitter has been programmed.
- When you have completed programming the remote transmitters, turn the ignition to 3 (OFF). Again the doors will lock/unlock to confirm programming has been completed.



Locks and Security

Illuminated entry

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

The system automatically turns off after 25 seconds or when the ignition is turned to the RUN or ACC position. The dome lamp control (if equipped) must **not** be set to the OFF position for the illuminated entry system to operate.

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 45 minutes after the ignition has been turned to the OFF position.

SECURILOCK[™] PASSIVE ANTI-THEFT SYSTEM (IF EQUIPPED)

SecuriLock[™] passive anti-theft system is an engine immobilization system. This system is designed to prevent the engine from being started unless a **coded key programmed to your vehicle** is used.

The SecuriLock[™] passive anti-theft system is not compatible with non-Ford aftermarket remote start systems. Use of these systems may result in vehicle starting problems and a loss of security protection.

THEFT INDICATOR (IF EQUIPPED)

The theft indicator is the flashing red indicator located on top of the instrument panel.

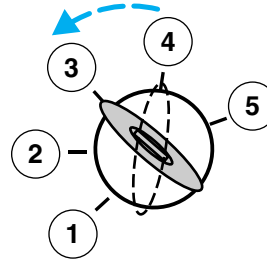
- When the ignition is in the OFF position, the indicator will flash once every 2 seconds to indicate the SecuriLock[™] system is functioning as a theft deterrent.
- When the ignition is in the ON position, the indicator will glow for 3 seconds to indicate normal system functionality.

If a problem occurs with the SecuriLock[™] system, the indicator will flash rapidly or glow steadily when the ignition is in the ON position. If this occurs, the vehicle should be taken to an authorized Ford dealer for service.

Locks and Security

Automatic arming

The vehicle is armed immediately after switching the ignition to the 3 (OFF) position. The **THEFT** indicator in the instrument cluster will flash every two seconds when the vehicle is armed.



Automatic disarming

Switching the ignition to the 4 (ON) position with a **coded key** disarms the vehicle. The **THEFT** indicator will illuminate for three seconds and then go out. If the **THEFT** indicator stays on for an extended period of time or flashes rapidly, have the system serviced by your dealership or a qualified technician.

Key information

Your vehicle is supplied with **two coded keys**. Only a **coded key** will start your vehicle. Spare coded keys can be purchased from your dealership. Your dealership can program your key or you can “do it yourself.” Refer to *Programming spare keys*.

The following items may prevent the vehicle from starting:

- Large metallic objects
- Electronic devices on the key chain that can be used to purchase gasoline or similar items
- A second key on the same key ring as the **coded key**

If any of these items are present, you need to keep these objects from touching the **coded key** while starting the engine. These objects and devices cannot damage the **coded key**, but can cause a momentary “no start” condition if they are too close to the key during engine start. If a problem occurs, turn ignition OFF and restart the engine with all other objects on the key ring held away from the ignition key. Check to make sure the **coded key** is an approved Ford **coded key**.

Locks and Security

If your keys are lost or stolen you will need to do the following:

- Use your spare key to start the vehicle, or
- Have your vehicle towed to a dealership or a locksmith. The key codes will need to be erased from your vehicle and new key codes will need to be re-coded.

Replacing coded keys can be very costly and you may want to store an extra programmed key away from the vehicle in a safe place to prevent an unforeseen inconvenience.

The correct **coded key** must be used for your vehicle. The use of the wrong type of **coded key** may lead to a “no start” condition.

If an unprogrammed key is used in the ignition it will cause a “no start” condition.

Programming spare keys

A maximum of eight keys can be coded to your vehicle. Only SecuriLock[®] keys can be used. To program a **coded key** yourself, you will need two previously programmed **coded keys** (keys that already operate your vehicle's engine) and the new unprogrammed key(s) readily accessible for timely implementation of each step in the procedure.

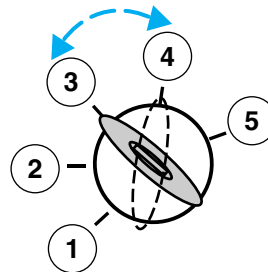
If two previously programmed coded keys are not available, you must bring your vehicle to your dealership to have the spare coded key(s) programmed.

Please read and understand the entire procedure before you begin.

1. Insert the first previously programmed **coded key** into the ignition and turn the ignition from 3 (OFF) to 4 (ON) (maintain ignition in 4 (ON) for at least one second).

2. Turn ignition to 3 (OFF) then 2 (LOCK) and remove the first **coded key** from the ignition.

3. Within ten seconds of removing the first **coded key**, insert the second previously programmed **coded key** into the ignition and turn the ignition from 3 (OFF) to 4 (ON) (maintain ignition in 4 (ON) for at least one second but no more than ten seconds).



Locks and Security

4. Turn the ignition to 3 (OFF) then 2 (LOCK) and remove the second **coded key** from the ignition.
5. Within 20 seconds of removing the second **coded key**, insert the new unprogrammed key (new key/valet key) into the ignition and turn the ignition from 3 (OFF) to 4 (ON) (maintain ignition in 4 (ON) for at least one second). This step will program your new key to a coded key.
6. To program additional new unprogrammed key(s), repeat this procedure from step 1.

If successful, the new coded key(s) will start the vehicle's engine and the theft indicator will illuminate for three seconds and then go out.

If not successful, the new coded key(s) will not start the vehicle's engine and the theft indicator will flash on and off and you may repeat steps 1 through 6. If failure repeats, bring your vehicle to your dealership to have the new spare key(s) programmed.

Seating and Safety Restraints

SEATING

Adjusting the front manual seat



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



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

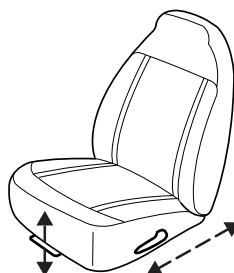


Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

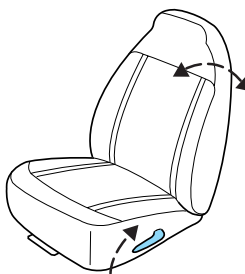


Reclining the seatback can cause an occupant to slide under the seat's safety belt, resulting in severe personal injuries in the event of a collision.

Lift handle to move seat forward or backward.



Pull lever up to adjust seatback.

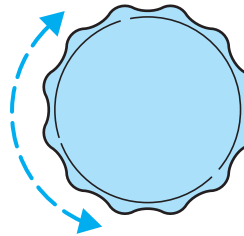


Seating and Safety Restraints

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.



REAR SEATS

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

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

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.

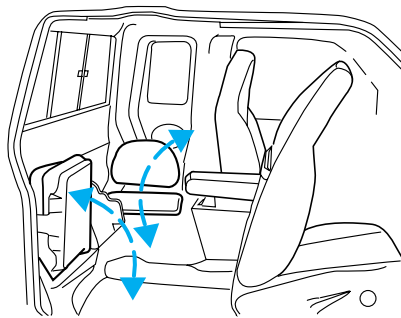
Center facing jump seat (4 door SuperCab) (if equipped)

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.



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 (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.

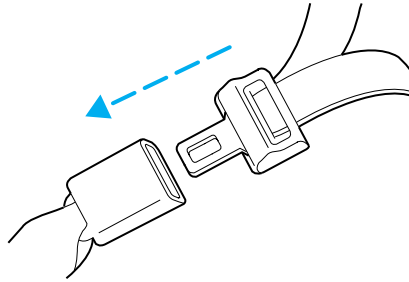


On four-door SuperCab vehicles, do not open the rear door when the rear seat belt is still buckled.

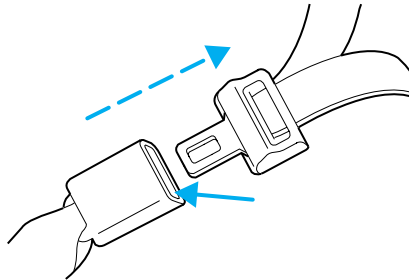
Seating and Safety Restraints

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:

Energy Management Feature

- This vehicle has a seat 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 seat 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.

Vehicle sensitive mode

The vehicle sensitive mode is the normal retractor mode, allowing 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 8 km/h (5 mph) or more, the combination safety belts will lock to help reduce forward movement of the driver and passengers.

Seating and Safety Restraints

Automatic locking mode

In this mode, the shoulder belt is automatically pre-locked. The belt will still retract to remove any slack in the shoulder belt.

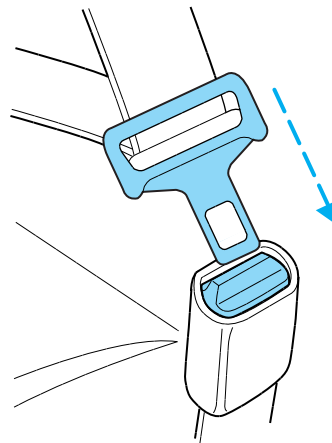
The automatic locking mode is not available on the driver safety belt.

When to use the automatic locking mode

- **Any time** a child safety seat is installed in a passenger front seat. Refer to *Safety Restraints for Children*, *Safety Seats for Children*, or *Passenger air bag On/Off switch* 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 extracted.



- 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.

Seating and Safety Restraints

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 seat belts should be checked for proper function.



BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the seat belt assembly “automatic locking retractor” feature or any other seat 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.

Safety belt pretensioner (if equipped)

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.



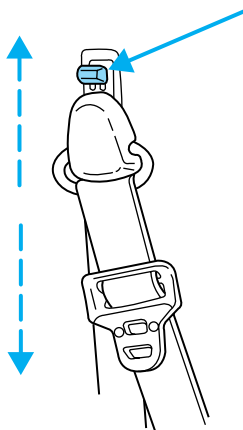
Failure to replace the safety belt assembly under the above conditions could result in severe personal injuries in the event of a collision.

Seating and Safety Restraints

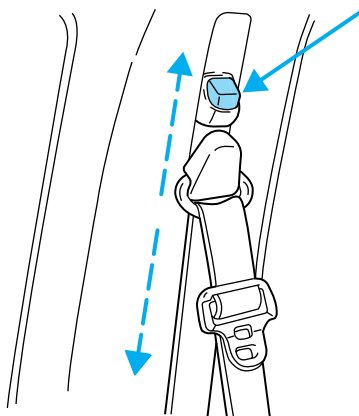
Front safety belt height adjustment

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

- 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.

Seating and Safety Restraints



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

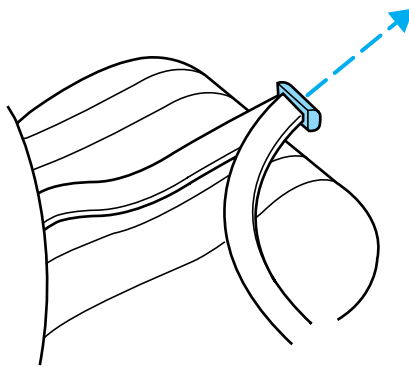
Adjusting the front center seat lap belt (if equipped)

The lap belt does not adjust automatically.

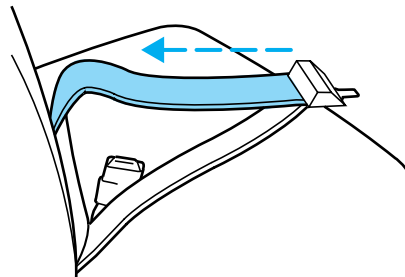


The lap belt should fit snugly and as low as possible around the hips, not across the waist.

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.



Seating and Safety Restraints

Adjusting the rear center facing jump seat lap belt (if equipped)

The lap belt will adjust automatically. To fasten, grasp the tongue, and with a continuous motion, pull out enough webbing to buckle the tongue into the correct buckle. If you did not pull out enough webbing to reach the buckle, allow the tongue to retract fully before trying to pull it out again.



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

If you need to lengthen the belt, unfasten it and repeat the procedure above.

To unfasten the belt, push in the release button prior to opening the rear door.

Safety belt extension assembly

If the safety belt is too short when fully extended, there is a 20 cm (8 inch) 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 5 km/h (3 mph) 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.

The purpose of the BeltMinder is to remind occasional wearers to wear safety belts all of the time.

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 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.
"Seat 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.

Seating and Safety Restraints

Reasons given...	Consider...
"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".



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, 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, make sure that:

- 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 Belt Minder feature while driving the vehicle.

Seating and Safety Restraints

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.
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 seat belt buckle assemblies, buckle support assemblies (slide bar-if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seatback (if

Seating and Safety Restraints

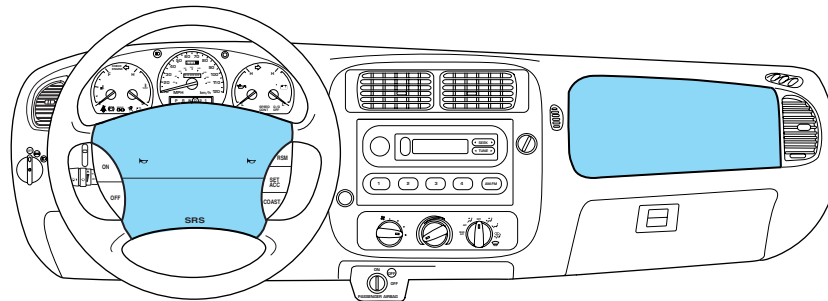
equipped), child safety seat tether bracket assemblies (if equipped), LATCH child seat tether anchors and lower anchors (if equipped), and attaching hardware, should be inspected after a collision. Ford Motor Company recommends that all safety belt assemblies used in vehicles involved in a collision 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.



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)



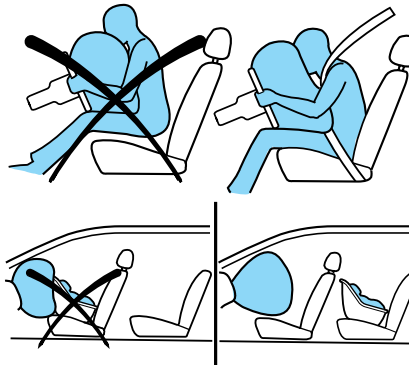
Your vehicle is equipped with a crash sensing and diagnostic module which records information about the air bag and sensor systems. In the event of a collision this module may save information related to the collision including information about the air bag system and impact severity. This information will assist Ford Motor Company in servicing the vehicle and in helping to better understand real world collisions and further improve the safety of future vehicles.

Seating and Safety Restraints

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.



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



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.



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

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.

Seating and Safety Restraints



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.



Modifications 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 sensors 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.

Children and air bags

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

Children must always be properly restrained. Failure to follow these instructions may increase the risk of injury in a collision.



An infant in a rear-facing seat faces a high risk of serious or fatal injuries from a deploying passenger air bag. Rear facing infant seats should NEVER be placed in the front seats, unless the passenger air bag is turned off. See *Passenger air bag ON/OFF switch*.

Seating and Safety Restraints

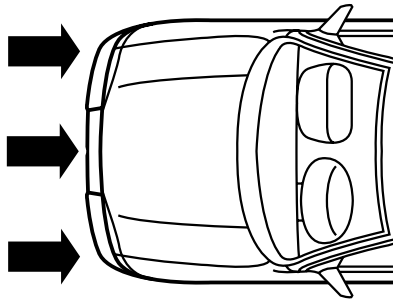
How does the air bag supplemental restraint system work?

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 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.

Seating and Safety Restraints



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 warning (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.
- 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.

Seating and Safety Restraints

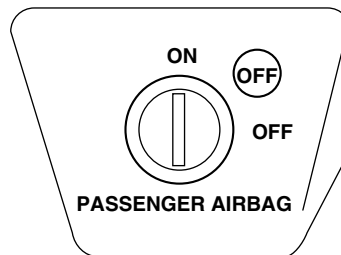
Disposal of air bags and air bag equipped vehicles (including pretensioners)

For disposal of air bags or air bag equipped vehicles, see your local dealership or qualified technician. Air bags **MUST BE** disposed of by qualified personnel.

Passenger air bag ON/OFF switch

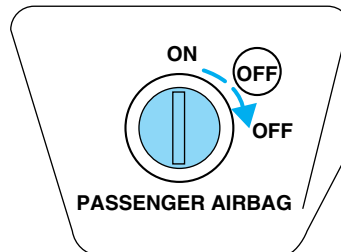


An air bag ON/OFF switch has been installed in this vehicle. Before driving, *always* look at the face of the switch to be sure the switch is in the proper position in accordance with these instructions and warnings. Failure to put the switch in a proper position can increase the risk of serious injury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



Turning the passenger air bag off

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.



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.

Seating and Safety Restraints

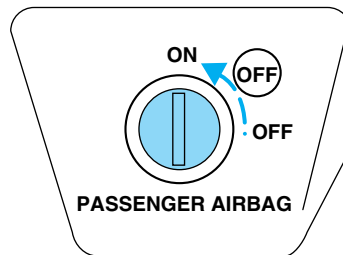


In order to avoid inadvertent activation of the switch, always remove the ignition key from the passenger air bag ON/OFF switch.

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 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.



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.

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;
 - 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.

Seating and Safety Restraints

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/or 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:

- 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.

Seating and Safety Restraints

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/or 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 18 kg [40 lbs] or less), you must put them in safety seats made especially for children. 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.

Seating and Safety Restraints

When possible, always place children under age 12 in the rear seat of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating positions.



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

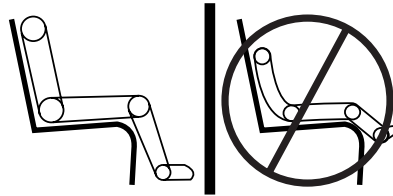
Seating and Safety Restraints

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 lbs (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 lbs.

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

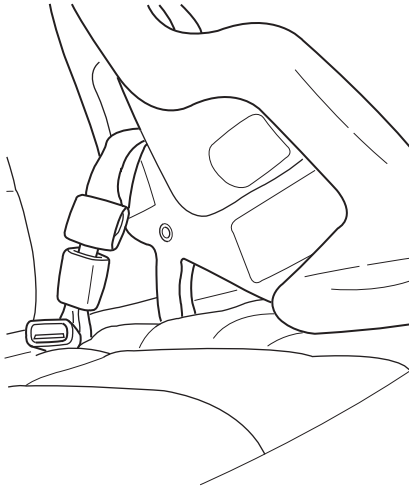


Child and infant or child safety seats

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.



Seating and Safety Restraints

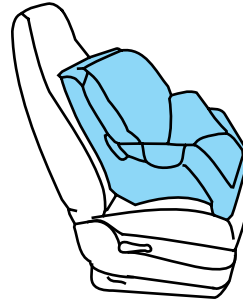
Ford recommends the use of a child safety seat having a top tether strap. Install the child safety seat in a seating position which is capable of providing a tether anchorage. For more information on top tether straps, refer to *Attaching child safety seats with tether straps* in this chapter.



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 in combination lap and shoulder belt seating positions

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



Air bags can kill or injure a child in a child seat. Never place a rear facing child seat in front of an active bag. If you must use a forward facing child seat in the front seat, position the vehicle seat fully rearward and turn the passenger air bag off.



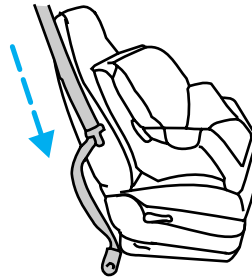
An air bag can kill or injure a child in a child seat. Child seats should never be placed in the front seats, unless passenger air bag switch is turned off, See *Passenger air bag on/off switch*.



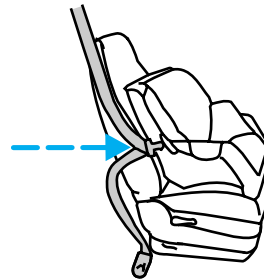
Rear facing child seats should NEVER be placed in the front seats unless the passenger airbag switch is turned off.

Seating and Safety Restraints

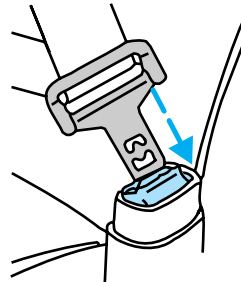
2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.



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.

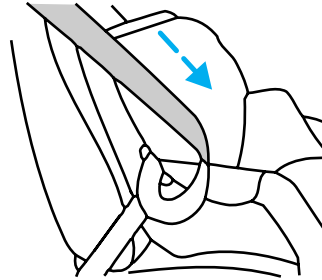


4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear and feel the latch engage. Make sure the tongue is latched securely by pulling on it.



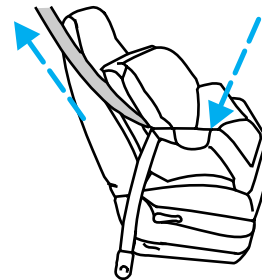
Seating and Safety Restraints

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.



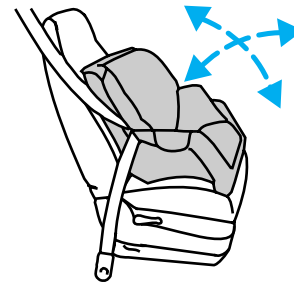
6. Allow the belt to retract. The belt will click as it retracts to indicate it is in the automatic locking mode.

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.

Seating and Safety Restraints

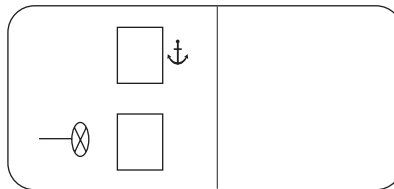
Attaching child safety seats with tether straps

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.

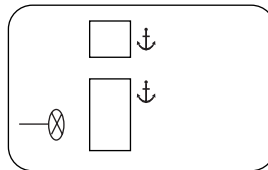
The tether anchors in your vehicle are located on the back of the front seat cushion.

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

- **Bucket seats**



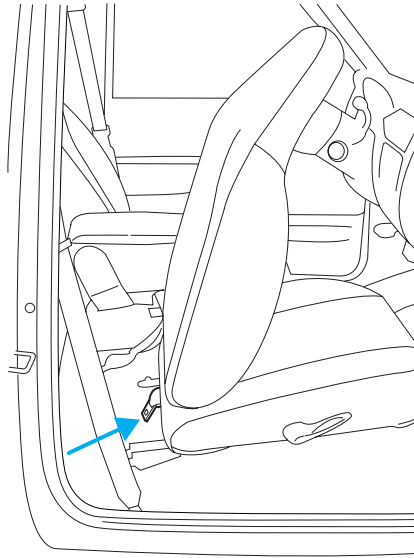
- **60/40 seats**



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.

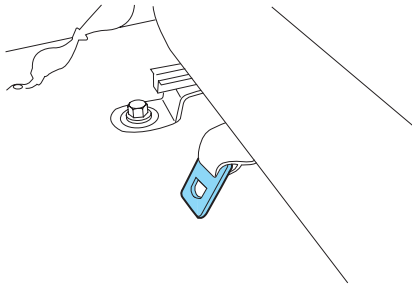
Seating and Safety Restraints

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.



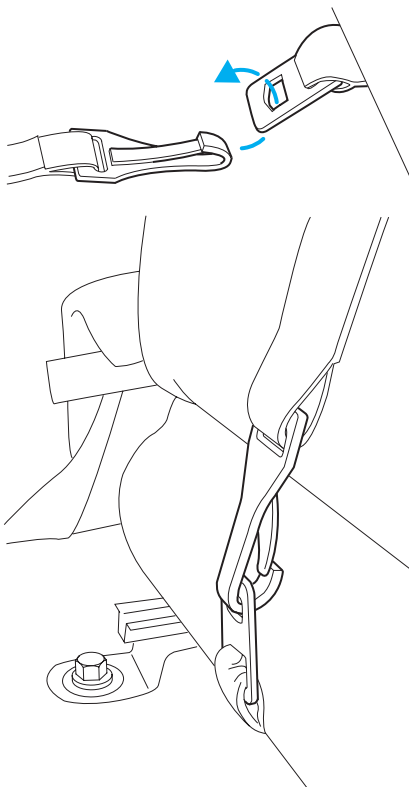
3. Locate the correct anchor for the selected seating position.

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



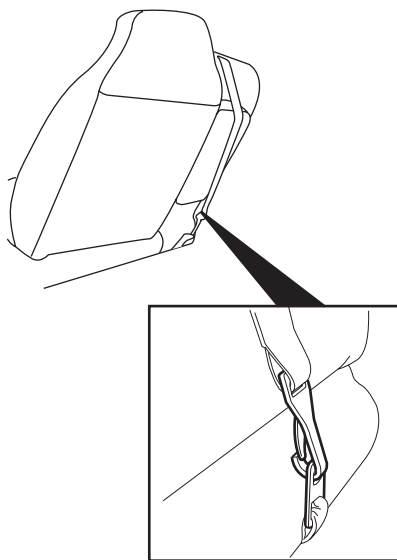
Seating and Safety Restraints

4. Clip the tether strap to the anchor.



Seating and Safety Restraints

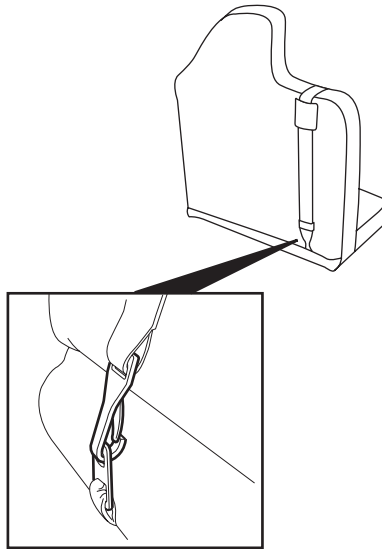
Center seating location



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.

Seating and Safety Restraints

Center seating location 60/40 vinyl seats



When installing a child safety seat in the center position on a 60/40 vinyl seat, route the tether strap through the guiding sleeve 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. Refer to the *Installing child safety seats in combination lap and shoulder belt seating positions* section of this chapter for further instructions to secure the child safety seat.

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.

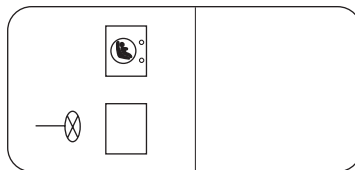
Attaching safety seats with LATCH (Lower Anchors and Tethers for Children) attachments for child seat anchors

Some child safety seats have two rigid or webbing mounted attachments that connect to two anchors at certain seating positions in your vehicle.

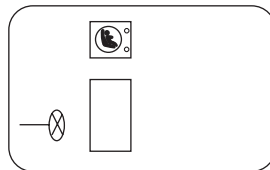
Seating and Safety Restraints

This type of child seat eliminates the need to use seat 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 seating positions with tan or gray locator buttons.



- Bucket seats



- 60/40 seats



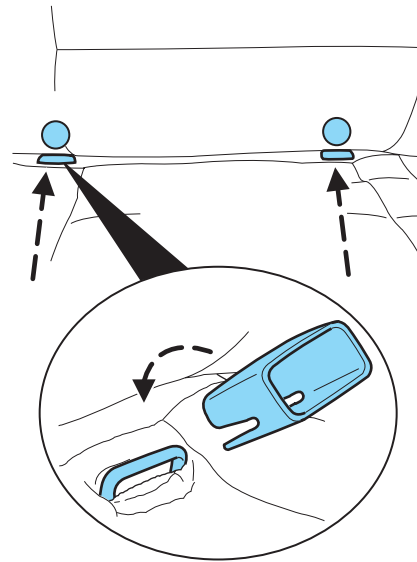
Never attach two LATCH child safety seats to the same anchor. In a crash, one anchor may not be strong enough to hold two child safety seat attachments and may break, causing serious injury or death.

Connectors on the LATCH child seat and the child seat instructions may use the symbol shown here. Your vehicle seat will have plain gray or tan buttons, instead of this symbol, to indicate the location of the LATCH lower anchors.



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 gray or tan locator buttons 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.

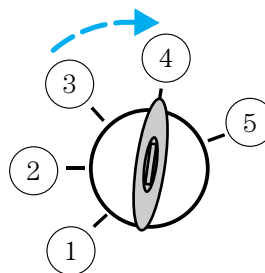


If the safety seat is not anchored properly, the risk of a child being injured in a crash greatly increases.

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.
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.



In the ignition 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, avoid pressing 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.



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.

Driving



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

A computer system controls the engine's idle revolutions per minute (RPM). When the engine starts, the idle RPM runs higher than normal in order to warm the engine. If the engine idle speed does not slow down automatically, have the vehicle checked. Do not allow the vehicle to idle for more than 10 minutes at high engine RPM.

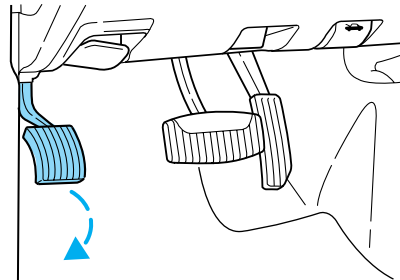
Before starting the vehicle:

1. Make sure all vehicle occupants have buckled 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 vehicle accessories are off.

If starting a vehicle with an automatic transmission:

- Make sure the parking brake is set.

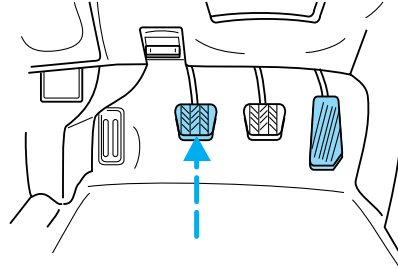


- Make sure the gearshift is in P (Park).

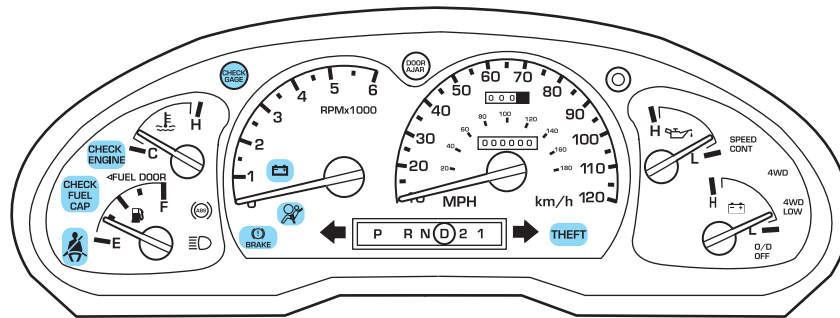
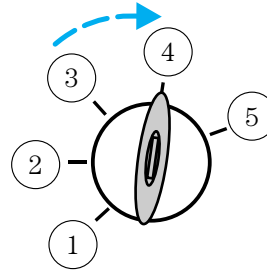
Driving

If starting a vehicle with a manual transmission:

- Make sure the parking brake is set.
- Push the clutch pedal to the floor.



3. 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.

Driving

Starting the engine

Note: Whenever you start your vehicle, release the key as soon as the engine starts. Excessive cranking could damage the starter.

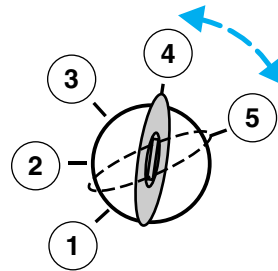
1. Turn the key to 5 (START) without pressing the accelerator pedal and release as soon as the engine starts. The key will return to 4 (ON).

2. If the temperature is above -12°C (10°F) and 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 does not start in two attempts, press the accelerator all the way to the floor and hold. Turn the key to the START position.

3. If the temperature is below -12°C (10°F) and the engine does not start in 15 seconds on the first try, turn the key OFF and wait 10 seconds and try again. If the engine does not start in two attempts, press the accelerator pedal all the way to floor and hold. Turn the key to START position.

4. When the engine starts, release the key, then release the accelerator pedal gradually as the engine speeds up.

5. After idling for a few seconds, apply the brake, shift into gear and drive.



Using the engine block heater (if equipped)

An engine block heater warms the engine coolant, which improves starting, warms up the engine faster and allows the heater-defroster system to respond quickly. Use of an engine block heater is strongly recommended if you live in a region where temperatures reach -23°C (-10°F) or below.

For best results, plug the heater in at least three hours before starting the vehicle. Using the heater for longer than three hours will not harm the engine, so the heater can be plugged in the night before starting the vehicle.



To prevent electrical shock, do not use your heater with ungrounded electrical systems or two-pronged (cheater) adapters.

Driving

Guarding against exhaust fumes

Although odorless and colorless, carbon monoxide is present in exhaust fumes. Take precautions to avoid its dangerous effects.



If you ever smell exhaust fumes of any kind inside your vehicle, have your dealer inspect and fix your vehicle immediately. Do not drive if you smell exhaust fumes. These fumes are harmful and could kill you.

Have the exhaust and body ventilation systems checked whenever:

- the vehicle is raised for service.
- the sound of the exhaust system changes.
- the vehicle has been damaged in a collision.



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.

Important ventilating information

If the engine is idling while the vehicle is stopped in an open area for long periods of time, open the windows at least 2.5 cm (one inch).

Adjust the heating or air conditioning (if equipped) to bring in fresh air.

Improve vehicle ventilation by keeping all air inlet vents clear of snow, leaves and other debris.

BRAKES

Your service brakes are self-adjusting. Refer to the scheduled maintenance guide for scheduled maintenance.

Occasional brake noise is normal and often does not indicate a performance concern with the vehicle's brake system. In normal operation, automotive brake systems may emit occasional or intermittent squeal or groan noises when the brakes are applied. Such noises are usually heard during the first few brake applications in the morning; however, they may be heard at any time while braking and can be aggravated by environmental conditions such as cold, heat, moisture,

Driving

road dust, salt or mud. If a “metal-to-metal,” “continuous grinding” or “continuous squeal” sound is present while braking, the brake linings may be worn-out and should be inspected by a qualified service technician.

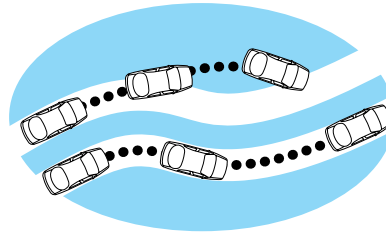


If you are driving down a long or steep hill, shift to a lower gear. Do not apply your brakes continuously, as they may overheat and become less effective.

Anti-lock brake system (ABS)

This vehicle is equipped with an anti-lock braking system (ABS). A noise from the hydraulic pump motor and pulsation in the pedal may be observed during ABS braking events. Pedal pulsation coupled with noise while braking under panic conditions or on loose gravel, bumps, wet or snowy roads is normal and indicates proper functioning of the vehicle's anti-lock brake system. If the vehicle has continuous vibration or shudder in the steering wheel while braking, the vehicle should be inspected by a qualified service technician.

The ABS operates by detecting the onset of wheel lockup during brake applications and compensates for this tendency. The wheels are prevented from locking even when the brakes are firmly applied. The accompanying illustration depicts the advantage of an ABS equipped vehicle (on bottom) to a non-ABS equipped vehicle (on top) during hard braking with loss of front braking traction.



Using four wheel ABS

- In an emergency or when maximum efficiency from the four wheel ABS is required, apply continuous force on the brake. The four wheel ABS will be activated immediately, thus allowing you to retain full steering control of your vehicle and, providing there is sufficient space, will enable you to avoid obstacles and bring the vehicle to a controlled stop.
- The anti-lock system does not reduce stopping distance. Always leave enough room between your vehicle and the vehicle in front of you to stop.
- We recommend that you familiarize yourself with this braking technique. However, avoid taking any unnecessary risks.

ABS warning lamp (ABS)

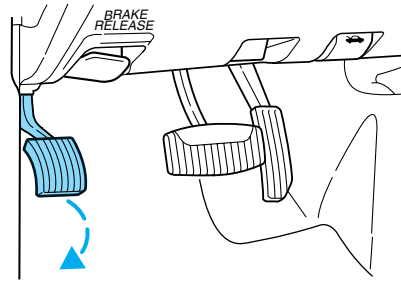
The (ABS) warning lamp in the instrument cluster momentarily illuminates when the ignition is turned to the ON position. If the light does not illuminate momentarily at start up, remains on or continues to flash, the ABS needs to be serviced.

With the ABS light on, the anti-lock brake system is disabled and normal braking is still effective unless the brake warning light also remains illuminated with parking brake released. (If your brake warning lamp illuminates, have your vehicle serviced immediately.)



Parking brake (P)

Apply the parking brake whenever the vehicle is parked. To set the parking brake, press the parking brake pedal down until the pedal stops.



The BRAKE warning lamp in the instrument cluster illuminates and remains illuminated (when the ignition is turned ON) until the parking brake is released.

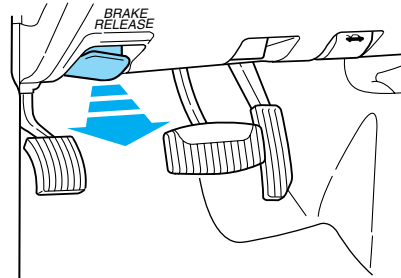


Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park) (automatic transmission) or in 1 (First) (manual transmission).

The parking brake is not recommended to stop a moving vehicle. However, if the normal brakes fail, the parking brake can be used to stop your vehicle in an emergency. Since the parking brake applies only the rear brakes, the vehicle's stopping distance will increase greatly and the handling of your vehicle will be adversely affected.

Driving

Pull the release lever to release the brake. Driving with the parking brake on will cause the brakes to wear out quickly and reduce fuel economy.



STEERING

Your vehicle is equipped with power steering. Power steering uses energy from the engine to decrease the driver's effort in steering the vehicle.

To prevent damage to the power steering pump:

- Never hold the steering wheel to the extreme right or the extreme left for more than a few seconds when the engine is running.
- Do not operate the vehicle with the 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:

- Underinflated tire(s) on any wheel(s)
- Uneven vehicle loading
- High crown in center of road
- High crosswinds
- Wheels out of alignment
- Loose or worn suspension components

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.

Extended use of other than the manufacturer's specified size tires on a Traction-Lok rear axle could result in a permanent reduction in effectiveness. This loss of effectiveness does not affect normal driving and should not be noticeable to the driver.

Driving



To reduce the risk of injury, never run the engine with one wheel off the ground, such as when changing a tire.

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 seat belt.

Your vehicle has special design and equipment features to make it capable of performing in a wide variety of circumstances. These special design features, such as larger tires and increased ground clearance, give 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.

Your vehicle has the capability to haul more cargo and people than most passenger cars. Depending upon the type and placement of the load, hauling people and cargo may raise the center of gravity of the vehicle. Use extra caution while becoming familiar with your vehicle. Know the capabilities and limitations of both you as a driver and your 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.

Driving

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).**



In the ignition 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.

If your vehicle gets stuck in mud or snow it may be rocked out by shifting from 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.



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)

Your automatic transmission electronically controls the shift feel by using an adaptive learning strategy. This feature is designed to increase

Driving

durability, and provide consistent shift feel over the life of the vehicle. It is normal for a new transmission to shift firmly. This operation is considered normal and will not affect function or durability of the transmission. Once the vehicle is at operating temperature it may take several shifts at the same operating condition for the transmission to properly adapt. Over time the adaptive learning process will fully update transmission operation. The more varied the driving habits, speed and torque, the longer it may take to adapt, but the more complete the process will be.

When the battery is disconnected or a new battery installed, the transmission must learn its adaptive strategy. As a result of this, the transmission may shift firmly. This operation is considered normal and will fully update transmission operation to its optimum shift feel.

Understanding gearshift positions



Hold the brake pedal down while you move the gearshift lever from P (Park) to another position. If you do not hold the brake pedal down, your vehicle may move unexpectedly and injure someone.

P (Park)

To put your vehicle in gear, start the engine, depress the brake pedal, then move gearshift lever out of P (Park).

Always come to a complete stop before shifting into P (Park). Make sure the gearshift lever is securely latched in P (Park). This position locks the transmission and prevents the rear wheels from turning.



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).



Driving

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.

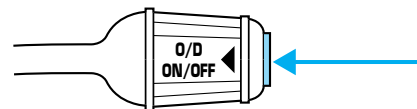


D (Overdrive)

The normal driving position for the best fuel economy. Transmission operates in gears one through five.



D (Overdrive) can be deactivated by pressing the transmission control switch on the end of the gearshift lever.



The transmission control indicator light (TCIL) will illuminate on the instrument cluster.

O/D
OFF

Drive – Not shown on the display. Activate by pressing the transmission control switch on the end of the gearshift lever with the gearshift in the **D** (Overdrive) position. The TCIL will illuminate on the instrument cluster. Transmission operates in gears one through four. Drive (O/D OFF) provides more engine braking than **D** (Overdrive) and is useful whenever driving conditions (i.e., city traffic, hilly terrain, etc.) cause the transmission to excessively shift between **D** (Overdrive) and other gears. Deactivate **D** (Overdrive) when:

- driving with a heavy load.
- towing a trailer up or down steep hills.
- additional engine braking is desired. If towing a trailer, refer to *Driving while you tow* in the *Trailer Towing* section.

To return to **D** (Overdrive) mode, press the transmission control switch. The TCIL will no longer be illuminated.

Each time the vehicle is started, the transmission will automatically return to normal **D** (Overdrive) mode.

2 (Second)

Use 2 (Second) to start-up on slippery roads or to provide additional engine braking on downgrades.



1 (First)

Use 1 (First) to provide maximum engine braking on steep downgrades. Upshifts can be made by shifting to 2 (Second) or to **D** (Overdrive). Selecting 1 (Low) at higher speeds causes the transmission to shift to a lower gear and will shift to 1 (First) after the vehicle decelerates to the proper vehicle speed.



Forced Downshifts

To gain acceleration in **D** (Overdrive) or Drive (O/D OFF) when passing another vehicle, push the accelerator to the floor. The transmission will downshift to the appropriate gear: fourth, third, second or first gear.

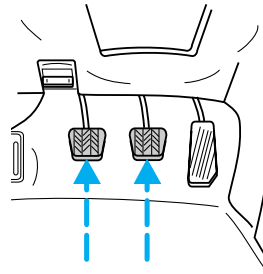
MANUAL TRANSMISSION OPERATION (IF EQUIPPED)

USING THE CLUTCH

Vehicles equipped with a manual transmission have a starter interlock that prevents starting the engine unless the clutch pedal is fully depressed.

When starting a vehicle with a manual transmission:

1. Hold down the brake pedal.
2. Depress the clutch pedal.
3. Put the gearshift lever in N (Neutral).
4. Start the engine and let it idle for a few seconds.
 - Put the gearshift lever in 1 (First) or R (Reverse).
5. Release the clutch slowly while pressing gradually down on the accelerator pedal.

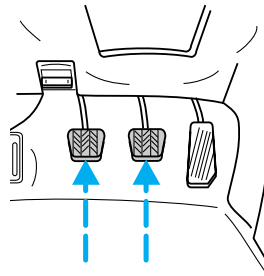


Driving

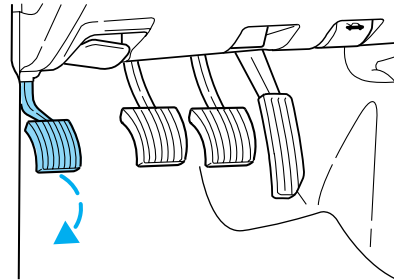
- Do not drive with your foot resting on the clutch pedal. Do not use the clutch to hold your vehicle at a standstill while waiting on a hill. These actions may reduce clutch life.

PARKING

1. Apply the brake and shift into N (Neutral).



2. Engage the parking brake.



3. Shift into 1 (First).
4. Turn the ignition to 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.

RECOMMENDED SHIFT SPEEDS

Upshifts when accelerating (for best fuel economy)		
Shift from:	Transfer case position (if equipped)	
	4H	4L
1 - 2	14 km/h (10 mph)	5 km/h (4 mph)
2 - 3	32 km/h (22 mph)	11 km/h (9 mph)
3 - 4	50 km/h (33 mph)	19 km/h (13 mph)
4 - 5 (Overdrive)	71 km/h (41 mph)	27 km/h (17 mph)
Upshifts when cruising (recommended for best fuel economy)		
Shift from:	Transfer case position (if equipped)	
	4H	4L
1 - 2	16 km/h (10 mph)	6 km/h (4 mph)
2 - 3	26 km/h (19 mph)	10 km/h (8 mph)
3 - 4	43 km/h (28 mph)	16 km/h (12 mph)
4 - 5 (Overdrive)	68 km/h (40 mph)	26 km/h (16 mph)
Maximum downshift speeds		
Shift from:	Transfer case position (if equipped)	
	4H	4L
5 (Overdrive) - 4	88 km/h (55 mph)	34 km/h (22 mph)
4 - 3	72 km/h (45 mph)	27 km/h (18 mph)
3 - 2	56 km/h (35 mph)	21 km/h (14 mph)
2 - 1	32 km/h (20 mph)	11 km/h (8 mph)

REVERSE

Ensure that the vehicle is at a complete stop before shifting into R (Reverse). Failure to do so may damage the transmission.

Put the gearshift lever into N and wait at least several seconds before shifting into R.

You can shift into R (Reverse) only by moving the gearshift lever from left of 3 (Third) and 4 (Fourth) gears before you shift into R (Reverse). This is a special lockout feature that protects you from accidentally shifting into R (Reverse) when you downshift from 5 (Overdrive).

Driving

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.

When four-wheel drive (4WD) is engaged, power is supplied to all four wheels through a transfer case. 4WD can be selected when additional driving power is desired.

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. Before 4WD Low can be engaged, the vehicle must be brought to a complete stop, the brake pedal depressed and the transmission placed in neutral (or the clutch pedal depressed on manual transmissions).

4WD operation is not recommended on dry pavement. Doing so could result in difficult disengagement of the transfer case, increased tire wear and decreased fuel economy.

4WD system indicator lights

The 4WD system indicator lights illuminate only under the following conditions. If these lights illuminate when driving in 2WD, contact your Ford dealer as soon as possible.

- **4WD** –momentarily illuminates when the vehicle is started. **4WD**
Illuminates when 4H (4WD High) is engaged.
- **4WD LOW** –momentarily illuminates when the vehicle is started. Illuminates when 4L (4WD Low) is engaged. **4WD LOW**

Using a manual 4WD system (if equipped)

2H (2WD High) – Power to rear axle only.

4H (4WD High) – Power to front and rear axles.

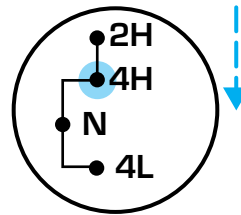
N (Neutral) – No power to either axle.

4L (4WD Low)– Power to front and rear axles at reduced speed.

Shifting from 2H (2WD high) to 4H (4WD high)

Move the transfer case lever to 4H (4WD High) at a stop or any forward speed up to 88 km/h (55 mph).

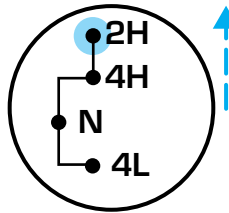
- At temperatures below 0°C (32°F), shifts from 2H (2WD High) to 4H (4WD High) should not be performed above 72 km/h (45 mph).



Do not shift into 4H (4WD High) with the rear wheels slipping.

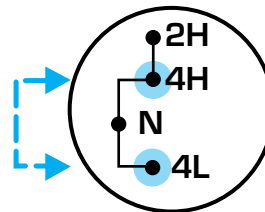
Shifting from 4H (4WD high) to 2H (2WD high)

Move the transfer case lever to 2H (2WD High) at a stop or any forward speed up to 88 km/h (55 mph).



Shifting from 4H (4WD high) to 4L (4WD low)

- Bring the vehicle to a complete stop.
- Depress the brake.
- Depress the clutch.
- Move the transfer case shift lever through N (Neutral) directly to 4L (4WD Low) and hold the shift lever in 4L (4WD Low) until the transfer case has fully engaged (up to 15 seconds).
- If the transfer case **does not** engage into 4L (4WD Low), repeat steps 1 through 4.

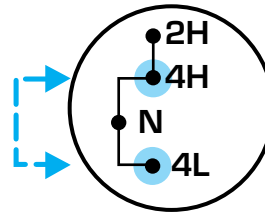


Shifting from 4L (4WD low) to 4H (4WD high) or 2H (2WD high)

- Bring the vehicle to a complete stop.
- Depress the brake.

Driving

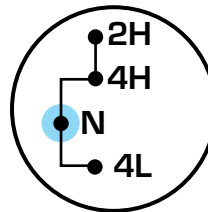
3. Depress the clutch.
4. Move the transfer case shift lever through N (Neutral) directly to 4H (4WD High) or 2H (2WD high) and hold the shift lever in position until the transfer case has fully engaged (up to 15 seconds).
5. If the transfer case **does not** engage, repeat steps 1 through 4.



Using the N (Neutral) position

The transfer case neutral position overrides the transmission and puts the vehicle in neutral regardless of transmission gearshift lever position. The vehicle can move forward or backwards.

This position should only be used when towing the vehicle.



Do not leave the vehicle unattended with the transfer case in the N (Neutral) position. Always set the parking brake fully and turn off the ignition when leaving the vehicle.

Using the electronic shift 4WD system (if equipped)

Positions of the electronic shift system

2WD (2WD High) – Power to rear axle only.

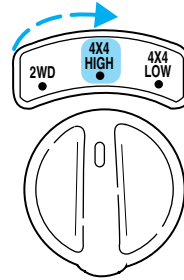
4X4 HIGH (4WD High) – Power delivered to front and rear axles for increased traction.

4X4 LOW (4WD Low) – Power to front and rear axles at low speeds.

Shifting from 2WD (2WD high) to 4X4 HIGH (4WD high)

Move the 4WD control to the 4X4 HIGH position.

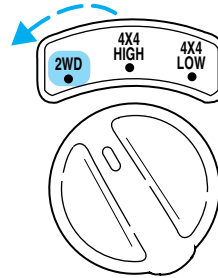
Do not shift into 4X4 HIGH with the rear wheels slipping.



Shifting from 4X4 HIGH (4WD high) to 2WD (2WD high)

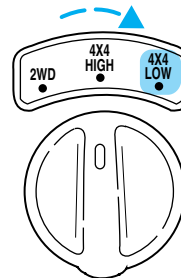
Move the 4WD control to 2WD position at any forward speed.

- You **do not** need to operate the vehicle in R (Reverse) to disengage your front hubs.



Shifting from 2WD (2WD high) to 4X4 LOW (4WD low)

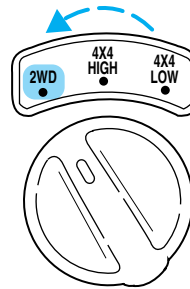
1. Bring the vehicle to a stop.
2. Depress the brake.
3. Place the gearshift in N (Neutral) (automatic transmission) or depress the clutch (manual transmission).
4. Move the 4WD control to the 4X4 LOW position.



Driving

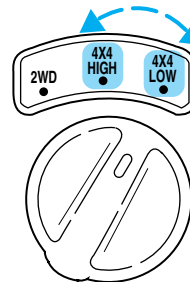
Shifting from 4X4 LOW (4WD low) to 2WD (2WD high)

1. Bring the vehicle to a stop.
2. Depress the brake.
3. Place the gearshift in N (Neutral) (automatic transmission) or depress the clutch (manual transmission).
4. Move the 4WD control to the 2WD position.



Shifting between 4X4 HIGH (4WD high) and 4X4 LOW (4WD low)

1. Bring the vehicle to a stop.
2. Depress the brake.
3. Place the gearshift in N (Neutral) (automatic transmission) or depress the clutch (manual transmission).
4. Move the 4WD control to the 4X4 HIGH or 4X4 LOW position.



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.

Driving

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 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.

Driving



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.



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.



Do not spin the wheels at over 56 km/h (35 mph). 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, not more. Additionally, smooth variations of the accelerator and/or brake pedal pressure should be utilized if changes in vehicle speed are

Driving

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.



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 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.

Parking

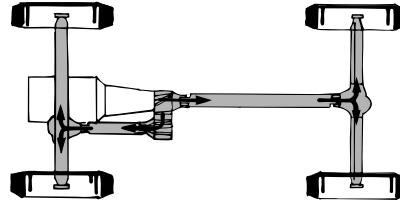
On some 4WD vehicles, when the transfer case is in the N (Neutral) position, the engine and transmission are disconnected from the rest of the driveline. Therefore, the vehicle is free to roll even if the automatic transmission is in P (Park) or the manual transmission is in gear. Do not leave the vehicle unattended with the transfer case in the N (Neutral) position. Always set the parking brake fully and turn off the ignition when leaving the vehicle.

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 can not.

Driving

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. This is the front drivetrain coming up to speed and the automatic locking hubs engaging and is not cause for concern.

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.

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.



Driving

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.

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.

Driving

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.

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.

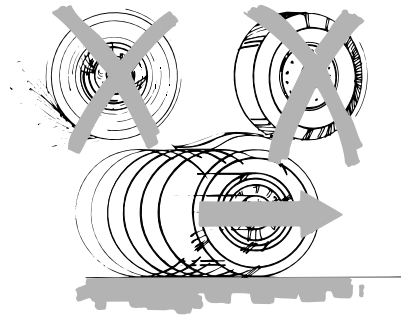
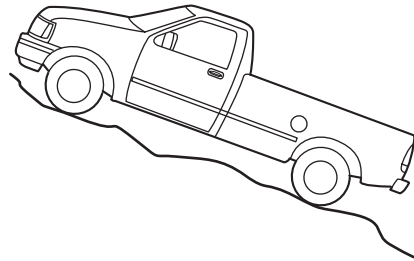
If your vehicle has anti-lock brakes, apply the brakes steadily. Do not "pump" the brakes.

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.



Driving

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. In emergency stopping situations, avoid locking of the wheels. Use a "squeeze" technique, push on the brake pedal with a steadily increasing force which allows the wheels to brake yet continue to roll so that you may steer in the direction you want to travel. If you lock the wheels, release the brake pedal and repeat the squeeze technique. If 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.

Tires, Replacement Requirements



Do not use a size and type of tire and wheel other than that originally provided by Ford Motor Company 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, and/or serious personal injury or death.

Make sure all tires and wheels on the vehicle are of the same size, type, tread design, brand and load-carrying capacity. If you have questions regarding tire replacement, see an authorized Ford or Lincoln/Mercury dealer.

If you nevertheless decide to equip your 4WD for off-road use with tires larger than what Ford Motor Company recommends, you should not use these tires for highway driving.

If you use any tire/wheel combination not recommended by Ford Motor Company, it may adversely affect vehicle handling and could cause steering, suspension, axle or transfer case failure.

Do not use "aftermarket lift kits" or other suspension modifications, whether or not they are used with larger tires and wheels.

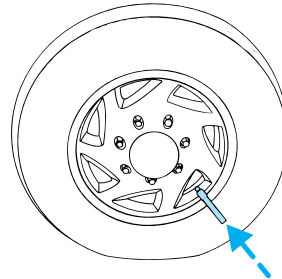
These "aftermarket lift kits" could adversely affect the vehicle's handling characteristics, which could lead to loss of vehicle control or rollover and serious injury.

Driving

Tires can be damaged during off-road use. For your safety, tires that are damaged should not be used for highway driving because they are more likely to blow out or fail.

You should carefully observe the recommended tire inflation pressure found on the safety compliance certification label attached to the left front door lock facing or door latch post pillar. Failure to follow tire pressure recommendations can adversely affect the way your vehicle handles. Do not exceed the Ford Motor Company recommended pressure even if it is less than the maximum pressure allowed for the tire.

Each 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. Check tire pressure with a tire gauge every few weeks (including spare). Safe operation requires tires that are neither underinflated nor a vehicle which is overloaded.



Periodically inspect the tire treads 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.

Inspect the tire side walls 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.

Maintenance and Modifications

The suspension and steering systems on your vehicle have been designed and tested to provide both reliable and reasonably 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

Do not drive quickly through standing water, especially if the depth is unknown. Traction or brake capability may be limited and if the ignition system gets wet, your engine may stall. Water may also enter your engine's air intake and severely damage your engine.

If driving through deep or standing water is unavoidable, proceed very slowly. Never drive through water that is higher than the bottom of the hubs (for trucks) or the bottom of the wheel rims (for cars).

Once through the 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.

Driving through deep water where the transmission vent tube is submerged may allow water into the transmission and cause internal transmission damage. Have the fluid checked and, if water is found, replace the fluid.

VEHICLE LOADING

Before loading a vehicle, familiarize yourself with the following terms:

- **Base Curb Weight:** Weight of the vehicle including any standard equipment, fluids, lubricants, etc. It does not include occupants or aftermarket equipment.
- **Payload:** Combined maximum allowable weight of cargo, occupants and optional equipment. The payload equals the gross vehicle weight rating minus base curb weight.
- **GVW (Gross Vehicle Weight):** Base curb weight plus payload weight. The GVW is not a limit or a specification.
- **GVWR (Gross Vehicle Weight Rating):** Maximum permissible total weight of the base vehicle, occupants, optional equipment and cargo. The GVWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.
- **GAWR (Gross Axle Weight Rating):** Carrying capacity for each axle system. The GAWR is specific to each vehicle and is listed on the Safety Certification Label on the driver's door pillar.

Driving

- **GCW (Gross Combined Weight):** The combined weight of the towing vehicle (including occupants and cargo) and the loaded trailer.
- **GCWR (Gross Combined Weight Rating):** Maximum permissible combined weight of towing vehicle (including occupants and cargo) and the loaded trailer
- **Maximum Trailer Weight Rating:** Maximum weight of a trailer the vehicle is permitted to tow. The maximum trailer weight rating is determined by subtracting the vehicle curb weight for each engine/transmission combination, any required option weight for trailer towing and the weight of the driver from the GCWR for the towing vehicle.
- **Maximum Trailer Weight:** Maximum weight of a trailer the loaded vehicle (including occupants and cargo) is permitted to tow. It is determined by subtracting the weight of the loaded trailer towing vehicle from the GCWR for the towing vehicle.
- **Trailer Weight Range:** Specified weight range that the trailer must fall within that ranges from zero to the maximum trailer weight rating.

Remember to figure in the tongue load of your loaded trailer when figuring the total weight.



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.

The Safety Certification Label, found on the driver's door pillar, lists several important vehicle weight rating limitations. Before adding any additional equipment, refer to these limitations. If you are adding weight to the front of your vehicle, (potentially including weight added to the cab), the weight added should not exceed the front axle reserve capacity (FARC). Additional frontal weight may be added to the front axle reserve capacity provided you limit your payload in other ways (i.e. restrict the number of occupants or amount of cargo carried).

Always ensure that the weight of occupants, cargo and equipment being carried is within the weight limitations that have been established for your vehicle including both gross vehicle weight and front and rear gross axle weight rating limits. Under no circumstance should these limitations be exceeded.

Driving



Exceeding any vehicle weight rating limitation could result in serious damage to the vehicle loss of vehicle control, vehicle rollover, and/or personal injury.

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, 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.

Your vehicle has the capability to 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.

Calculating the load your vehicle can carry/tow

1. Use the appropriate maximum gross combined weight rating (GCWR) chart (in the *Trailer Towing* section) to find the maximum GCWR for your type engine and rear axle ratio.
2. Weigh your vehicle as you customarily operate the vehicle without cargo. To obtain correct weights, try taking your vehicle to a shipping company or an inspection station for trucks.
3. Subtract your loaded vehicle weight from the maximum GCWR on the following charts. This is the maximum trailer weight your vehicle can tow and must fall below the maximum shown under maximum trailer weight on the chart.

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.

Driving

4x2 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)	Maximum frontal area of trailer - m ² (ft ²)
Regular Cab w/6' box				
2.3L	All	2177 (4800)	753 (1660)	Equal to frontal area of vehicle
3.0L (non-torsion bar suspension)	All	2722 (6000)	1207 (2660)	4.64 (50)
3.0L (torsion bar suspension)	All	2722 (6000)	1152 (2540)	4.64 (50)
4.0L (non-torsion bar suspension)	All	3175 (7000)	1624 (3580)	4.64 (50)
4.0L (torsion bar suspension)	All	3175 (7000)	1569 (3460)	4.64 (50)
Regular Cab w/7' box				
2.3L	All	2177 (4800)	726 (1600)	Equal to frontal area of vehicle
3.0L	All	2722 (6000)	1179 (2600)	4.64 (50)
4.0L	All	3175 (7000)	1597 (3520)	4.64 (50)

Driving

4x2 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)	Maximum frontal area of trailer - m ² (ft ²)
SuperCab				
2.3L	All	2177 (4800)	671 (1480)	Equal to frontal area of vehicle
3.0L (non-torsion bar suspension)	All	2722 (6000)	1125 (2480)	4.64 (50)
3.0L (torsion bar suspension)	All	2722 (6000)	1052 (2320)	4.64 (50)
4.0L (non-torsion bar suspension)	All	3175 (7000)	1542 (3400)	4.64 (50)
4.0L (torsion bar suspension)	All	3175 (7000)	1479 (3260)	4.64 (50)
For high altitude operation, reduce GCW by 2% per 300 meters (1000 ft.) elevation.				
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).				

Driving

4x4 w/manual transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs)	Maximum frontal area of trailer - m ² (ft ²)
Regular Cab w/6' box				
3.0L	All	2722 (6000)	1180 (2380)	4.64 (50)
4.0L	All	3175 (7000)	1506 (3320)	4.64 (50)
Regular Cab w/7' box				
3.0L	All	2722 (6000)	1061 (2340)	4.64 (50)
4.0L	All	3175 (7000)	1479 (3260)	4.64 (50)
SuperCab				
3.0L	All	2722 (6000)	1007 (2220)	4.64 (50)
4.0L	All	3175 (7000)	1424 (3140)	4.64 (50)
4.0L (FX4 package)	All	3175 (7000)	1234 (2720)	4.64 (50)
For high altitude operation, reduce GCW by 2% per 300 meters (1000 ft.) of elevation.				
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).				

Driving

4x2 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)	Maximum frontal area of trailer - m ² (ft ²)
Regular Cab w/6' box				
2.3L	All	2495 (5500)	1025 (2260)	Equal to frontal area of vehicle
3.0L (non-torsion bar suspension)	All	3402 (7500)	1869 (4120)	4.64 (50)
3.0L (torsion bar suspension)	All	3402 (7500)	1814 (4000)	4.64 (50)
4.0L (non-torsion bar suspension)	All	4309 (9500)	2740 (6040)	4.64 (50)
4.0L (torsion bar suspension)	All	4309 (9500)	2685 (5920)	4.64 (50)
Regular Cab w/7' box				
2.3L	All	2495 (5500)	1007 (2220)	Equal to frontal area of vehicle
3.0L	All	3402 (7500)	1842 (4060)	4.64 (50)
4.0L	All	4309 (9500)	2712 (5980)	4.64 (50)
SuperCab				
3.0L (non-torsion bar suspension)	All	3402 (7500)	1787 (3940)	4.64 (50)

Driving

4x2 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)	Maximum frontal area of trailer - m ² (ft ²)
3.0L (torsion bar suspension)	All	3402 (7500)	1715 (3780)	4.64 (50)
4.0L (non-torsion bar suspension)	All	4309 (9500)	2667 (5880)	4.64 (50)
4.0L (torsion bar suspension)	All	4309 (9500)	2595 (5720)	4.64 (50)
For high altitude operation, reduce GCW by 2% per 300 meters (1000 ft.) elevation.				
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).				

Driving

4x4 w/automatic transmission				
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)	Maximum frontal area of trailer - m ² (ft ²)
Regular Cab w/6' box				
3.0L	All	3402 (7500)	1751 (3860)	4.64 (50)
4.0L	All	4309 (9500)	2622 (5780)	4.64 (50)
Regular Cab w/7' box				
3.0L	All	3402 (7500)	1724 (3800)	4.64 (50)
4.0L	All	4309 (9500)	2595 (5720)	4.64 (50)
SuperCab				
3.0L	All	3402 (7500)	1669 (3680)	4.64 (50)
4.0L	All	4309 (9500)	2540 (5600)	4.64 (50)
4.0L (FX4 package)	All	4309 (9500)	2350 (5180)	4.64 (50)
For high altitude operation, reduce GCW by 2% per 300 meters (1000 ft.) of elevation.				
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).				



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.

Driving

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 907 kg (2,000 lb), 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 907 kg (2,000 lb).

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.



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.

Driving

Trailer lamps

Trailer lamps are required on most towed vehicles. Make sure your trailer lamps conform to local and Federal regulations. See your dealer or trailer rental agency for proper instructions and equipment for hooking up trailer lamps.

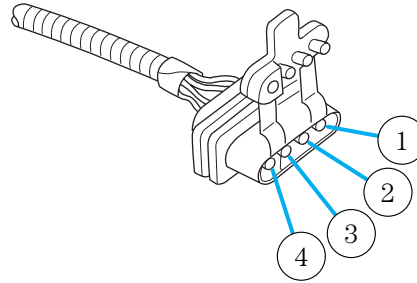
Using a step bumper

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



Driving

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 4-speed automatic transmission* section in this chapter.
- Anticipate stops and brake gradually.
- Do not exceed the GCWR rating or transmission damage may occur.

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.

Driving

- 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 80 km (50 miles), 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 15 cm (6 inches) 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.

4x2 equipped with a manual transmission:

Before you have your vehicle towed:

- Release the parking brake.
- Move the gearshift to the neutral position.

Driving

- Turn the key in the ignition to the OFF/UNLOCKED position.
- The maximum recommended speed is 88 km/h (55 mph).
- The maximum recommended distance is unlimited.
- The vehicle must be towed in the forward position to ensure no damage is done to the internal transfer case 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.

4x4 vehicles equipped with manual-shift transfer case:

- Release the parking brake.
- Turn the key in the ignition to the OFF/UNLOCKED position.
- Place the transmission in N (Neutral).
- Place the transfer case lever in N (Neutral).
- Do not exceed 88 km/h (55 mph) vehicle speed.
- The maximum recommended distance is unlimited.
- The vehicle must be towed in the forward position to ensure no damage is done to the internal transfer case components.

The transfer case N (Neutral) position overrides the transmission and puts the vehicle in neutral regardless of transmission gearshift lever position. The vehicle can move forward or backward.

This position should only be used when towing the vehicle.



Do not leave the vehicle unattended with the transfer case in the N (Neutral) position. Always set the parking brake fully and turn off the ignition when leaving the vehicle.

After reaching the destination, you must place the Ranger's 4x4 gearshift lever in gear (2H, 4H or 4L).

4x2 and 4x4 vehicles equipped with automatic transmissions:

4x2 vehicles with automatic transmissions or 4x4 vehicles with an electronic-shift transfer case and 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).

Driving

- Do not exceed a distance of 80 km (50 miles).
- Do not exceed 56 km/h (35 mph) vehicle speed.
- 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 80 km (50 miles) or a speed of 56 km/h (35 mph) 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.

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 60,000 km (36,000 miles), whichever occurs first on Ford and Mercury vehicles, and four years or 80,000 km (50,000 miles) on Lincoln vehicles.

Roadside assistance will cover:

- changing a flat tire
- jump-starts
- lock-out assistance
- limited fuel delivery
- towing of your disabled vehicle to the nearest Ford Motor Company dealership, or your selling dealer if within 56.3 km (35 miles) of the nearest Ford Motor Company dealership (one tow per disablement). Even non-warranty related tows, like accidents or getting stuck in the mud or snow, 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 Ford vehicles and is mailed to you if you own a Mercury or Lincoln. In Canada, the card is found in the Owner Information Guide in the glove compartment.

Roadside Emergencies

U.S. Ford or Mercury vehicle customers who require roadside assistance, call 1-800-241-3673; Lincoln vehicle customers call 1-800-521-4140.

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

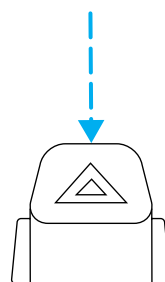
In the United States, you may purchase additional roadside assistance coverage beyond this period through the Ford Auto Club by contacting your Ford or Lincoln Mercury dealer.

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

Use only in an emergency to warn traffic of vehicle breakdown, approaching danger, etc. The hazard flashers can be operated when the ignition is off.

- The hazard lights control is located on top of the steering column.
- Depress hazard lights control to activate all hazard flashers simultaneously.
- Depress control again to turn the flashers off.



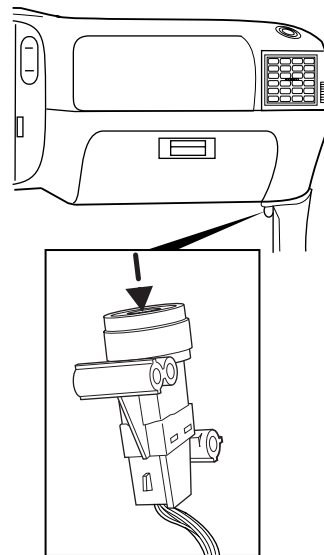
Roadside Emergencies

FUEL PUMP SHUT-OFF SWITCH FUEL RESET

The fuel pump shut-off switch is a device intended to stop the electric fuel pump when your vehicle has been involved in a substantial jolt.

After a collision, if the engine cranks but does not start, the fuel pump shut-off switch may have been activated. The “Fuel Reset” indicator light will illuminate in the instrument cluster.

The fuel pump shut-off switch is located in the passenger's foot well, by the kick panel.



Use the following procedure to reset the fuel pump shut-off switch.

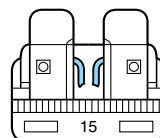
1. Turn the ignition to the OFF position.
2. Check the fuel system for leaks.
3. If no fuel leak is apparent, reset the fuel pump shut-off switch by pushing in on the reset button.
4. Turn the ignition to the ON position. Pause for a few seconds and return the key to the OFF position.
5. Make a further check for leaks in the fuel system.

Roadside Emergencies

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.

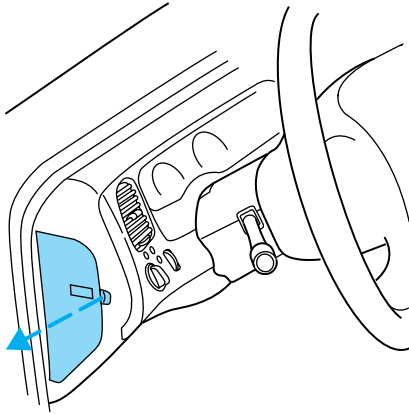
Standard fuse amperage rating and color

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

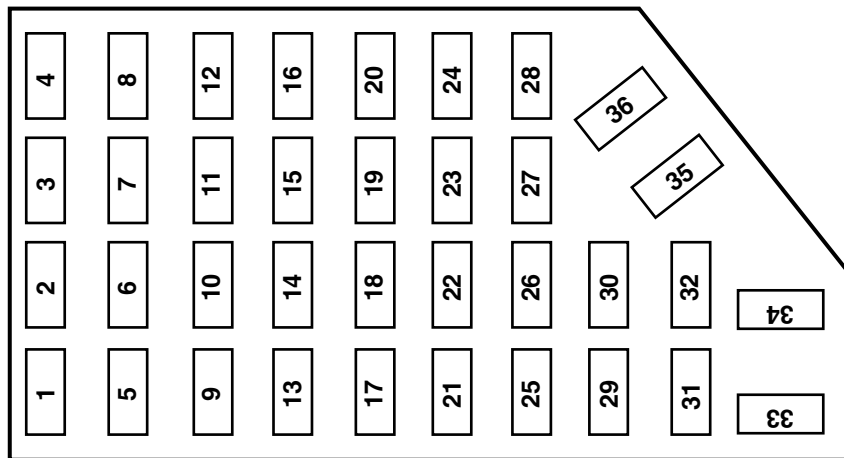
Roadside Emergencies

Passenger compartment fuse panel

The fuse panel is located on the left-hand side of the instrument panel facing the driver's side door. Pull the panel cover outward to access the fuses.



To remove a fuse use the fuse puller tool provided.



Roadside Emergencies

The fuses are coded as follows:

Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
1	5A	Power mirror switch
2	10A	Daytime Running Lights (DRL), Back-up lamps, Transmission, Passenger air bag deactivation switch, Blower motor relay
3	7.5A	Right stop/turn trailer tow connector
4	—	Not used
5	15A	4x4 control module
6	2A	Brake pressure switch
7	7.5A	Left stop/turn trailer tow connector
8	—	Not used
9	7.5A	Brake pedal position switch
10	7.5A	Speed control servo/amplifier assembly, Generic Electronic Module (GEM), Shift lock actuator, Turn signals
11	7.5A	Instrument cluster, 4x4, Main light switch, Truck Central Security Module (TCSM)
12	—	Not used
13	20A	Brake pedal position switch
14	10A or Not Used	10A: ABS control module
15	—	Not used
16	30A	Windshield wiper motor, Wiper HI/LO relay, Wiper run/park relay
17	20A	Cigar lighter, Data Link Connector (DLC)
18	—	Not used

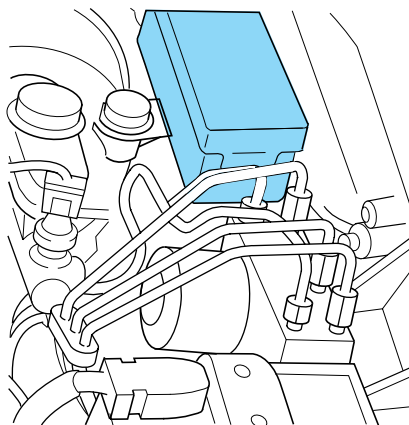
Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
19	25A	Powertrain Control Module (PCM) power diode, Ignition, PATS
20	7.5A	GEM, Radio
21	15A	Hazard flasher
22	20A	Auxiliary power socket
23	—	Not used
24	7.5A	Clutch Pedal Position (CPP) switch, Starter interrupt relay
25	—	Not used
26	10A	Battery saver relay, Auxiliary relay box, Restraint Central Module (RCM), Generic Electronic Module (GEM), Instrument cluster
27	—	Not used
28	7.5A	GEM, Radio
29	20A	Radio
30	—	Not used
31	—	Not used
32	—	Not used
33	15A	Headlamps, DRL module, Instrument cluster
34	—	Not used
35	15A or Not Used	15A: Horn relay (if not equipped with a truck CSM)
36	—	Not used

Roadside Emergencies

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.

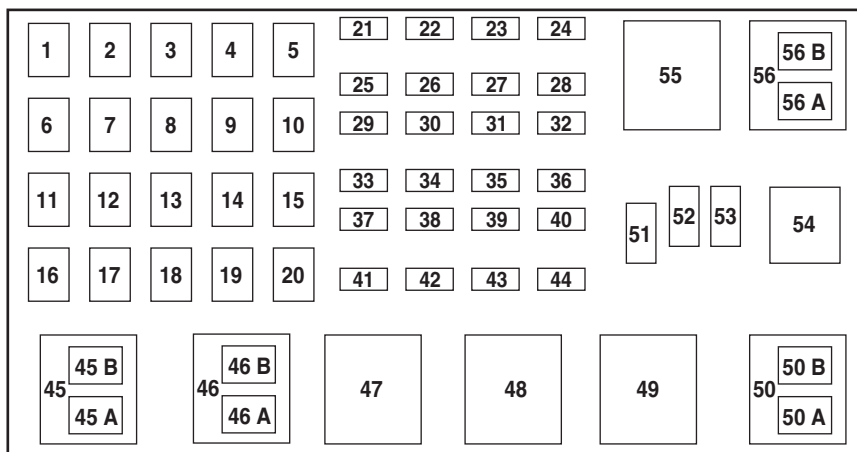


To reduce risk of electrical shock, always replace the cover to the Power Distribution Box before reconnecting the battery or refilling fluid reservoirs.

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	50A**	I/P fuse panel
2	—	Not used
3	—	Not used
4	—	Not used
5	—	Not used
6	50A**	Anti-lock Brake System (ABS) pump motor
7	30A*	Powertrain Control Module (PCM)
8	20A*	Power door locks, Remote entry
9	—	Not used
10	—	Not used
11	50A**	Starter relay, Ignition switch
12	20A*	Power windows
13	—	Not used

Roadside Emergencies

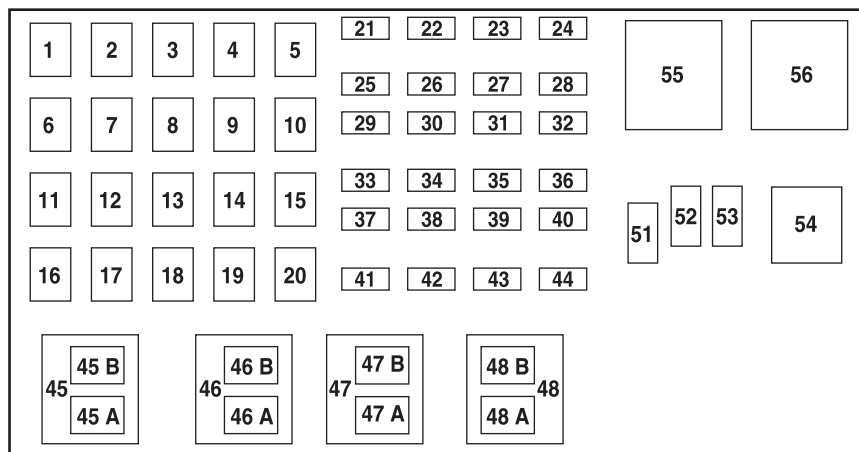
Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
14	—	Not used
15	—	Not used
16	40A**	Blower motor
17	20A**	Auxiliary cooling fan
18	—	Not used
19	—	Not used
20	—	Not used
21	10A*	PCM memory
22	—	Not used
23	20A*	Fuel pump motor
24	30A*	Headlamps
25	10A*	A/C clutch solenoid
26	—	Not used
27	—	Not used
28	30A*	ABS module
29	—	Not used
30	15A*	Trailer tow
31	20A*	Fog lamps, Daytime Running Lamps (DRL)
32	—	Not used
33	15A*	Park Lamp
34	—	Not used
35	—	Not used
36	—	Not used
37	—	Not used
38	10A*	Left headlamp low beam
39	—	Not used
40	—	Not used
41	20A*	Heated oxygen sensors
42	10A*	Right headlamp low beam
43	—	(Resistor)

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
44	—	Not used
45A	—	Wiper HI/LO
45B	—	Wiper park/run
46A	—	Fuel pump
46B	—	Trailer tow
47	—	Starter
48	—	Auxiliary cooling fan
49	—	Not used
50	—	Not used
51	—	Not used
52	—	Not used
53	—	PCM Diode
54	—	PCM
55	—	Blower
56A	—	A/C clutch solenoid
56B	—	Front washer pump
* 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	50A**	I/P fuse panel
2	50A**	Amplifier
3	—	Not used
4	—	Not used
5	—	Not used
6	50A**	Anti-lock Brake System (ABS) pump motor
7	30A*	Powertrain Control Module (PCM)
8	20A*	Power door locks, Remote entry
9	—	Not used
10	—	Not used
11	50A**	Starter relay, Ignition switch
12	20A*	Power windows
13	20A*	4x4 Motor

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
14	—	Not used
15	—	Not used
16	40A**	Blower motor
17	—	Not used
18	—	Not used
19	—	Not used
20	—	Not used
21	10A*	PCM memory
22	—	Not used
23	20A*	Fuel pump motor
24	30A*	Headlamps
25	10A*	A/C clutch solenoid
26	—	Not used
27	—	Not used
28	30A*	ABS Module
29	—	Not used
30	15A*	Trailer tow
31	20A*	Fog lamps, Daytime Running Lamps (DRL)
32	—	Not used
33	15A*	Park lamp
34	—	Not used
35	—	Not used
36	—	Not used
37	—	Not used
38	10A*	Left headlamp low beam
39	—	Not used
40	—	Not used
41	20A*	Heated oxygen sensors
42	10A*	Right headlamp low beam
43	—	Not used

Roadside Emergencies

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
44	—	Not used
45A	—	Wiper HI/LO
45B	—	Wiper park/run
46A	—	Fuel pump
46B	—	Trailer tow
47A	—	A/C clutch solenoid
47B	—	Front washer pump
48A	—	Fog lamps
48B	—	Fog lamp relay
51	—	Not used
52	—	Not used
53	—	PCM Diode
54	—	PCM
55	—	Blower
56	—	Starter

* Mini Fuses ** Maxi Fuses

CHANGING THE TIRES

If you get a flat tire while driving, do not apply the brake heavily. Instead, gradually decrease your speed. Hold the steering wheel firmly and slowly move to a safe place on the side of the road.



The use of tire sealants is not recommended and may compromise the integrity of your tires.

Temporary spare tire information

Your vehicle is equipped with a conventional spare tire that may be different in size (smaller diameter and narrower width) than other tires on your vehicle. If this is the case, your spare tire is considered “temporary” and the spare wheel will be labeled as such. Replace this tire 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” (i.e. dissimilar size) spare. If 4WD operation is necessary, do not operate above speeds of 16 km/h (10 mph) or for distances above 80 km (50 miles).

Roadside Emergencies



If you use the temporary spare tire continuously or do not follow these precautions, the tire could fail, causing you to lose control of the vehicle, possibly injuring yourself or others.

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

- exceed 80 km/h (50 mph) or drive further than 3,200 km (2,000 miles) total under any circumstances
- load the vehicle beyond maximum vehicle load rating listed on the Safety Compliance Label
- tow a trailer
- use more than one temporary spare tire at a time

Use of a temporary 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 driving capability

Conventional spare tire information

If you have the conventional 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).

Roadside Emergencies

Location of the spare tire and tools

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

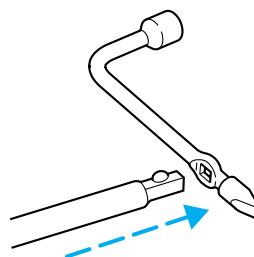
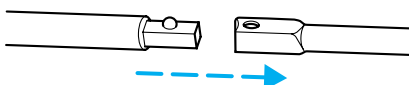
Tool	Location
Spare tire	Under the vehicle, just forward of the rear bumper
Jack, jack handle, wheel nut wrench	Regular Cab: behind seats and underneath the jack and tools cover
	SuperCab: stowed in the passenger side rear cab compartment or behind the jump seat in a separate tool bag
	Four-door models: 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.

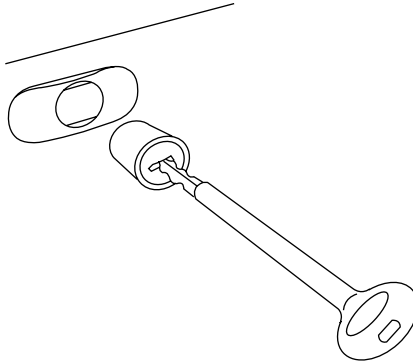
When connecting the jack handle, assemble the following:

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



Roadside Emergencies

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.

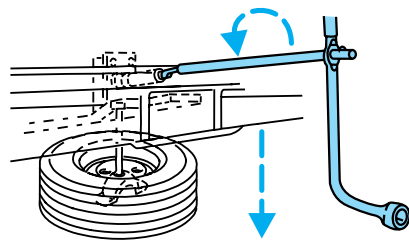


3. Insert the straight end of the jack handle into the rear access hole located just above the rear bumper and below the tailgate.

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.

5. Remove the retainer from the spare tire.



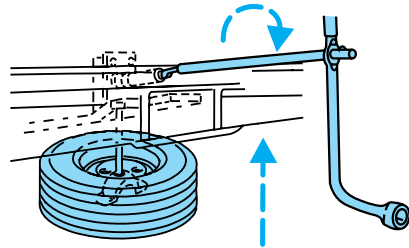
Stowing the spare tire

1. Lay the tire on the ground with the valve stem facing up.

2. Install the retainer through the wheel center and slide the wheel under the vehicle.

3. Turn the spare handle clockwise until the tire is raised to its original position underneath the vehicle. The spare handle ratchets when the tire is raised to the stowed position. It will not allow you to overtighten.

4. If your vehicle is equipped with P265/75 R15 AT tires, do not stow a flat or inflated full size spare tire in the spare tire carrier. The flat full size tire should be stowed and tied down in the pickup box bed until it can be repaired.



Roadside Emergencies

5. If removed, install the spare tire carrier lock on the access hole above the bumper.

Tire change procedure



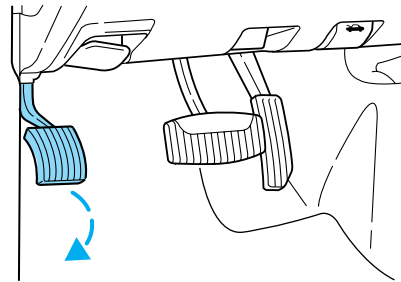
To prevent the vehicle from moving when you change a tire, be sure the parking brake is set, then block (in both directions) the wheel that is diagonally opposite (other side and end of the vehicle) to the tire being changed.



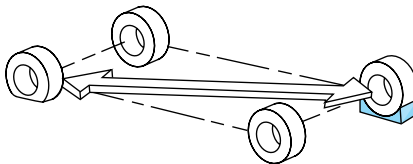
If the vehicle slips off the jack, you or someone else could be seriously injured.

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.



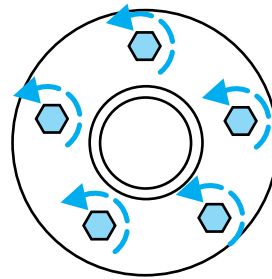
3. Block the diagonally opposite wheel.



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

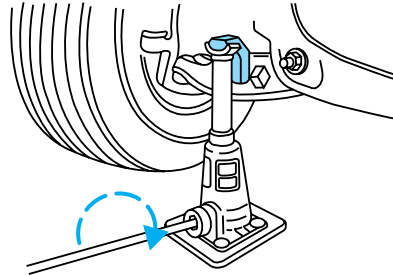
5. Loosen each wheel lug nut one-half turn counterclockwise but do not remove them until the wheel is raised off the ground.

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

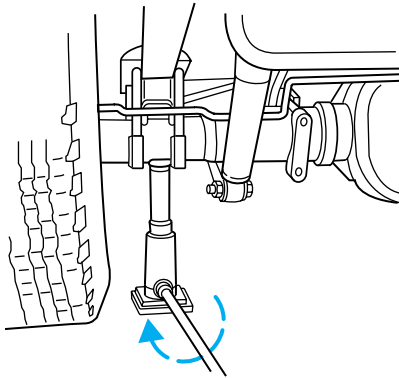


Roadside Emergencies

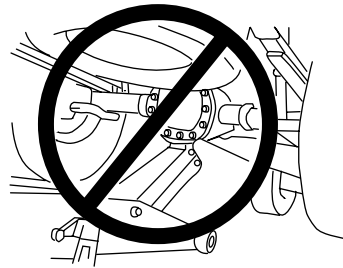
- Front



- 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.



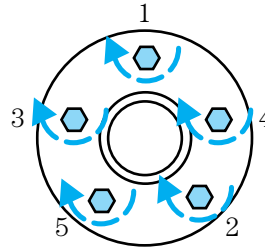
- **Never use the differential as a jacking point.**

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.

Roadside Emergencies

9. Lower the wheel by turning the jack handle counterclockwise.

10. Remove the jack and fully tighten the lug nuts, in the order shown, to 135 Nm (100 lb-ft). Note that these tightening specifications are for nut and bolt threads that are free of dirt and rust. Use only Ford recommended (1/2–20) replacement fasteners.



11. Stow the flat tire. Refer to *Stowing the 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.

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; also, the catalytic converter may become damaged.

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.

1. Use only a 12-volt supply to start your vehicle.

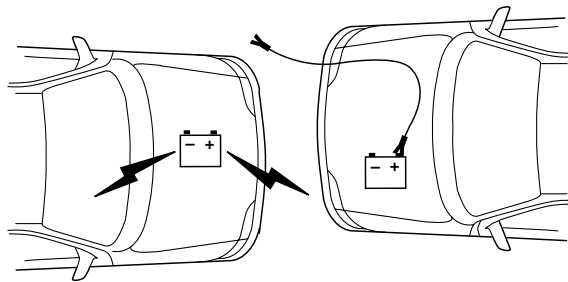
2. Do not disconnect the battery of the disabled vehicle as this could damage the vehicle's electrical system.

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.

Roadside Emergencies

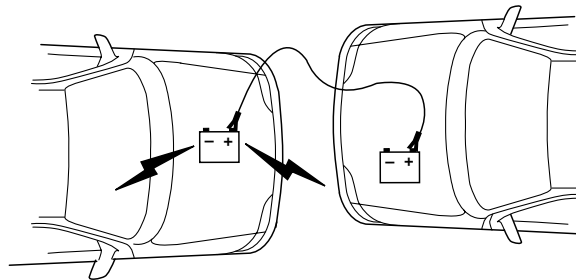
4. Check all battery terminals and remove any excessive corrosion before you attach the battery cables. Ensure that vent caps are tight and level.
5. Turn the heater fan on in both vehicles to protect any electrical surges. Turn all other accessories off.

Connecting the jumper cables



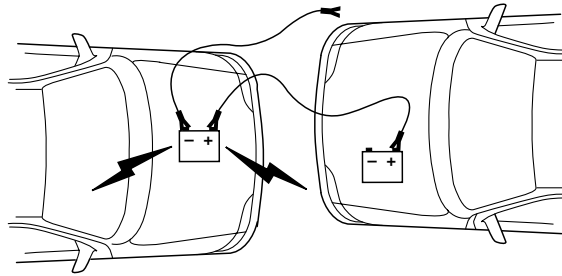
1. Connect the positive (+) booster cable to the positive (+) terminal of the discharged battery.

Note: In the illustrations, *lightning bolts* are used to designate the assisting (boosting) battery.

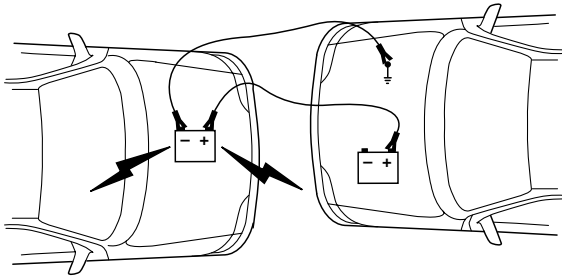


2. Connect the other end of the positive (+) cable to the positive (+) terminal of the assisting battery.

Roadside Emergencies



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.

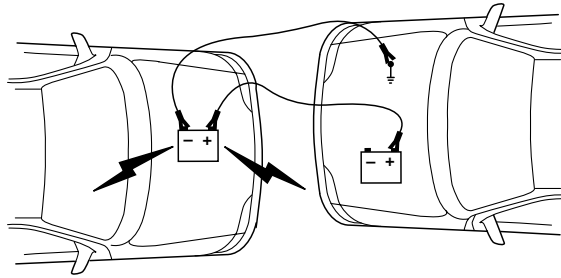
5. Ensure that the cables are clear of fan blades, belts, moving parts of both engines, or any fuel delivery system parts.

Roadside Emergencies

Jump starting

1. Start the engine of the booster vehicle and run the engine at moderately increased speed.
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.

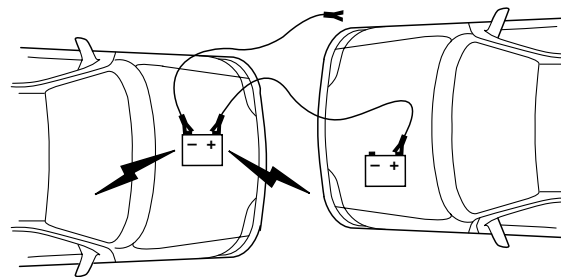
Removing the jumper cables



Remove the jumper cables in the reverse order that they were connected.

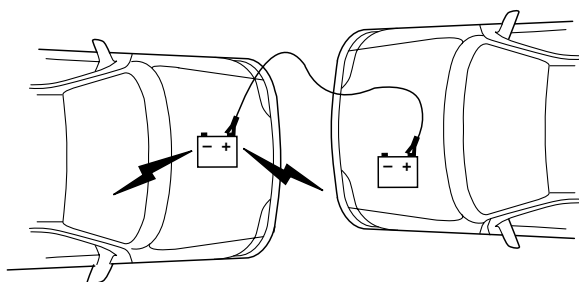
1. Remove the jumper cable from the *ground* metal surface.

Note: In the illustrations, *lightning bolts* are used to designate the assisting (boosting) battery.

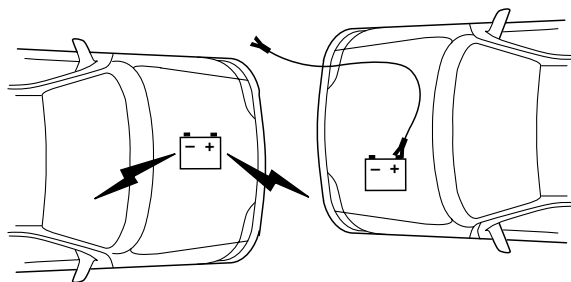


2. Remove the jumper cable on the negative (-) connection of the booster vehicle's battery.

Roadside Emergencies



3. Remove the jumper cable from the positive (+) terminal of the booster vehicle's battery.

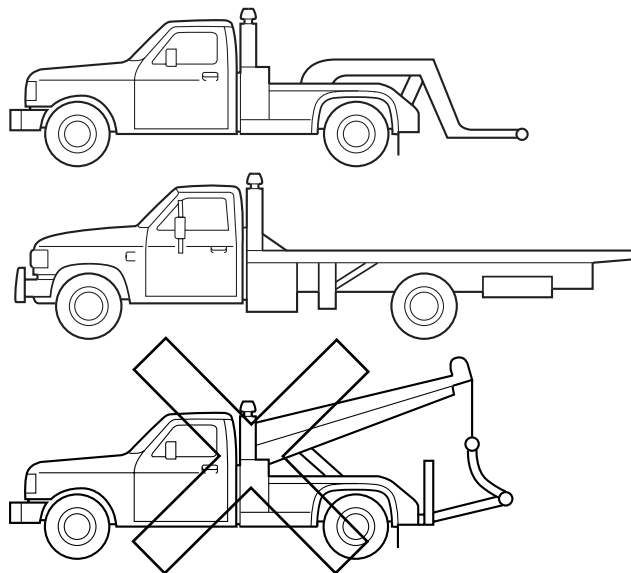


4. Remove the jumper cable from the positive (+) terminal of the disabled vehicle's battery.

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, your roadside assistance center.

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 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

Ford Motor Company and Ford of Canada have authorized dealerships to service your vehicle. It is preferred that you return to the authorized dealer where your vehicle was purchased when warranty repairs are needed. However, you may also take your vehicle to another Ford Motor Company or Ford of Canada dealership authorized for warranty repairs. Certain warranty repairs require special training though, so not all dealers are authorized to perform all warranty repairs. That means that depending on the warranty repair needed, the vehicle may need to be taken to another dealer. If a particular dealership cannot assist you, then contact the Customer Relationship Center.

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 or Service Manager at the dealership.
3. If the inquiry or concern cannot be resolved at the dealership level, please contact the Ford Customer Relationship Center.

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
16800 Executive Plaza Drive
P.O. Box 6248
Dearborn, Michigan 48121
1-800-392-3673 (FORD)
(TDD for the hearing impaired: 1-800-232-5952)
www.ford.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
16800 Executive Plaza Drive
P.O. Box 6248
Dearborn, Michigan 48121
1-800-521-4140
(TDD for the hearing impaired: 1-800-232-5952)
www.ford.com

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

In order to help you service your Ford or Lincoln Mercury vehicle, please have the following information available when contacting a Customer Relationship Center:

- 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)

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.

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. Ford ESP is an optional service contract which is backed by Ford Motor Company or Ford Motor Service Company (in the U.S.) and Ford of Canada (in Canada). 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. Please contact your dealer for further information. 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

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.

Customer Assistance

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 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 to the Board at the following address/phone number:

Dispute Settlement Board
P.O. Box 5120
Southfield, MI 48086-5120
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
16800 Executive Plaza Drive
P.O. Box 6248
Dearborn, Michigan 48121

Customer Assistance

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).

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.

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.

Customer Assistance

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.

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.

Customer Assistance

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 29,000 km (18,000 miles), whichever occurs first:

1. Two or more repair attempts are made on the same nonconformity 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

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

Ford Motor Company

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
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 carwash 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.**

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 COVERS

Aluminum wheel rims or covers are coated with a clearcoat paint finish. In order to maintain their shine:

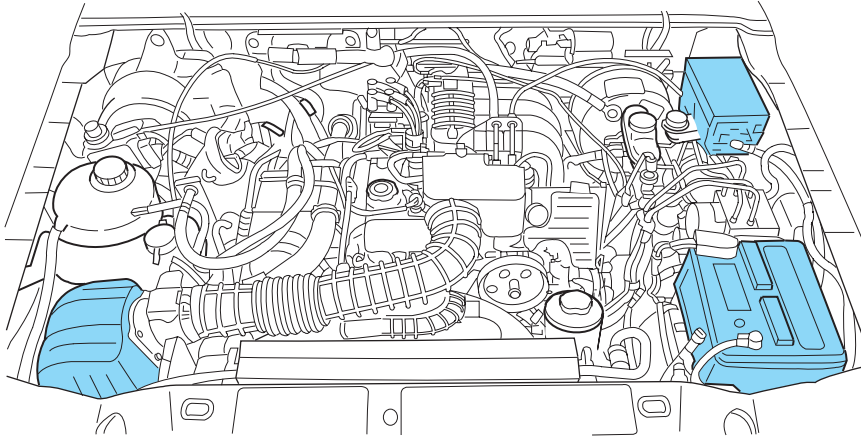
- Clean with Motorcraft Wheel and Tire Cleaner (ZC-37-A), which is available from your dealer.
- Never apply any cleaning chemical to hot or warm wheel rims or covers.
- Some automatic car washes may cause damage to the finish on your wheel rims or covers. Chemical-strength cleaners, or cleaning chemicals, 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 Ford Extra Strength Tar and Road Oil Removal (B7A-19520-AA), available from your dealer.

ENGINE

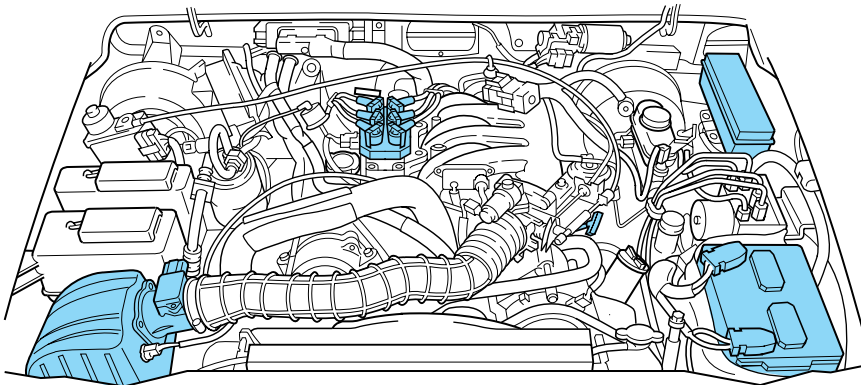
Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal. When washing:

- 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

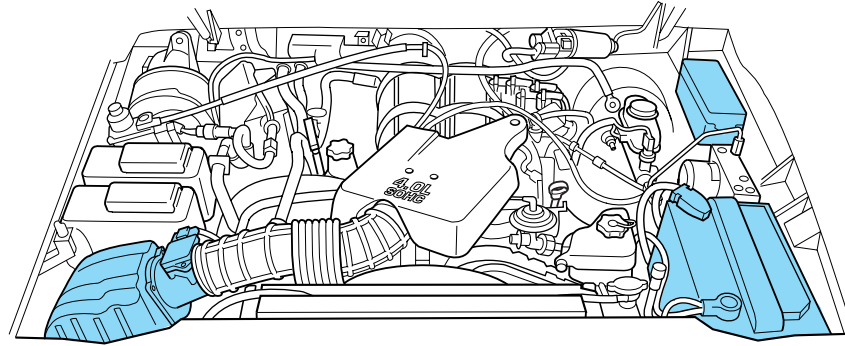


- **2.3L I4 engine**



- **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 Ford Extra Strength Tar and Road Oil Removal (B7A-19520-AA).

WINDOWS AND WIPER BLADES

The windshield, rear window and wiper blades should be cleaned regularly. If the wiper does not wipe properly, substances on the windshield, rear window 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 or rear window 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.

Cleaning

INSTRUMENT PANEL AND CLUSTER LENS

Clean the instrument panel with a damp cloth, then dry with a dry cloth.

- 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 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 Ford Extra Strength Upholstery Cleaner (E8AZ-19523-AA).
- 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.

Cleaning

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.

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)

Ford Custom Vinyl Protectant* (not available in Canada)
(F2AZ-19530-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)

Ford Extra Strength Tar and Road Oil Remover* (not available in Canada)
(B7A-19520-AA)

Ford Extra Strength Upholstery Cleaner (not available in Canada)
(E8AZ-19523-AA)

Motorcraft Custom Bright Metal Cleaner (ZC-15)

Motorcraft Wheel and Tire Cleaner (ZC-37-A)

Cleaning

Motorcraft Dash and Vinyl Cleaner (ZC-38-A)

Motorcraft Car Care Kit (ZC-26)

Ford Premium Car Wash Concentrate (F2SZ-19523-WC)

Motorcraft Carlite Glass Cleaner (Canada only) (CXC-100)

Motorcraft Spot and Stain Remover (ZC-14)

Motorcraft Detail Wash (ZC-3-A)

Motorcraft Tire Detailer (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)

* May be sold with the Motorcraft name

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

Be especially careful when inspecting or servicing your vehicle.

- Do not work on a hot engine.
- When the engine is running, make sure that loose clothing, jewelry or long hair does not get caught up 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 lit cigarettes, open flames and other lit material away from the battery and all fuel related parts.

If you disconnect the battery, the engine must “relearn” its idle conditions before your vehicle will drive properly, as explained in the *Battery* section of this chapter.

Working with the engine off

- Automatic transmission:
 1. Set the parking brake and ensure the gearshift is securely latched in P (Park).
 2. Turn off the engine and remove the key.
 3. Block the wheels to prevent the vehicle from moving unexpectedly.

Maintenance and Specifications

- Manual transmission:

1. Set the parking brake.
2. Depress the clutch and place the gearshift in 1 (First).
3. Turn off the engine and remove the key.
4. Block the wheels to prevent the vehicle from moving unexpectedly.

Working with the engine on

- Automatic transmission:

1. Set the parking brake and ensure the gearshift is securely latched in P (Park).
2. Block the wheels to prevent the vehicle from moving unexpectedly.

Note: Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

- Manual transmission:

1. Set the parking brake, depress the clutch and place the gearshift in neutral.
2. Block the wheels to prevent the vehicle from moving unexpectedly.

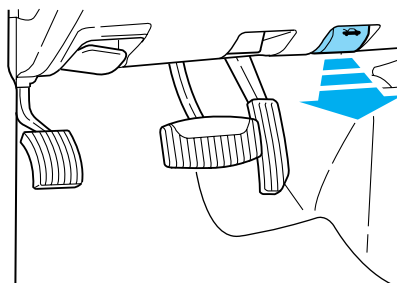
Note: Do not start your engine with the air cleaner removed and do not remove it while the engine is running.



The cooling fan is automatic and may come on at any time. Always disconnect the negative terminal of the battery before working near the fan.

OPENING THE HOOD

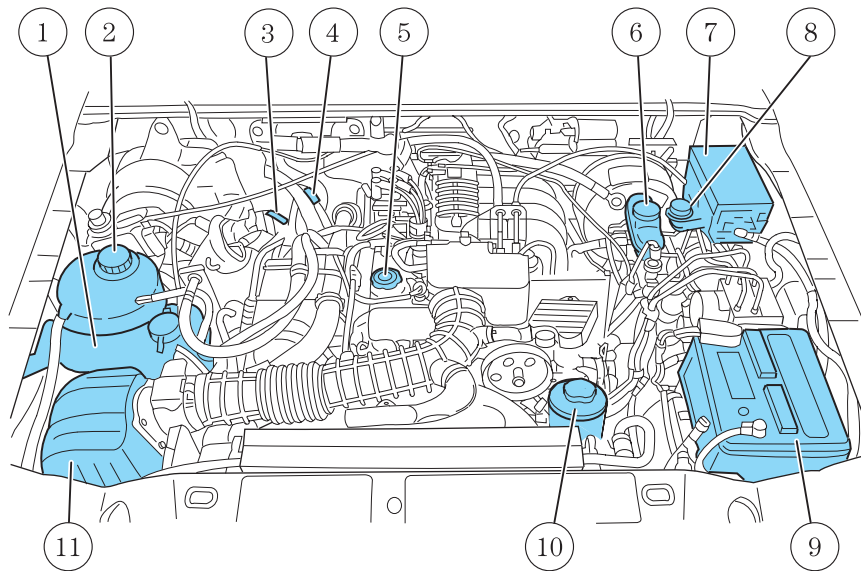
1. Inside the vehicle, pull the hood release handle located under the bottom of the instrument panel near the steering column.
2. Go to the front of the vehicle and release the auxiliary latch that is located under the front center of the hood.
3. Lift the hood and support it with the prop rod.



Maintenance and Specifications

IDENTIFYING COMPONENTS IN THE ENGINE COMPARTMENT

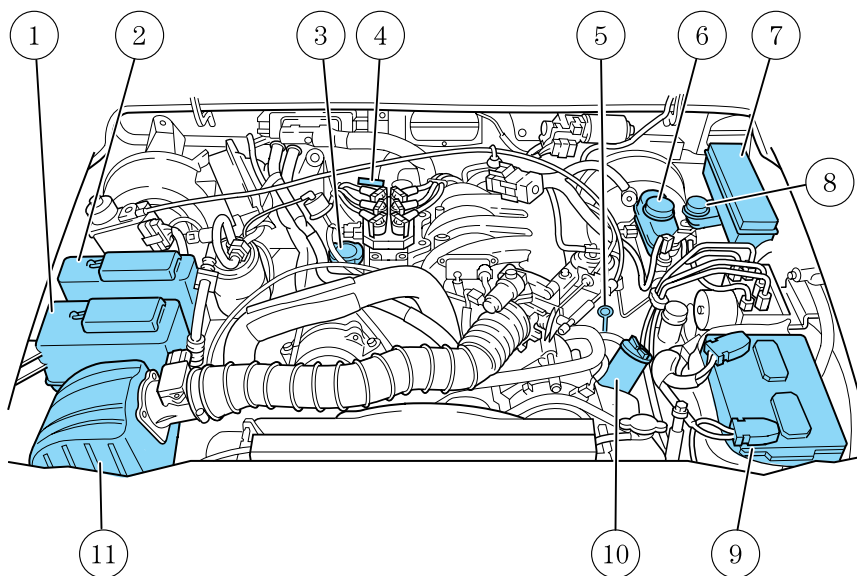
2.3L I4 engine



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

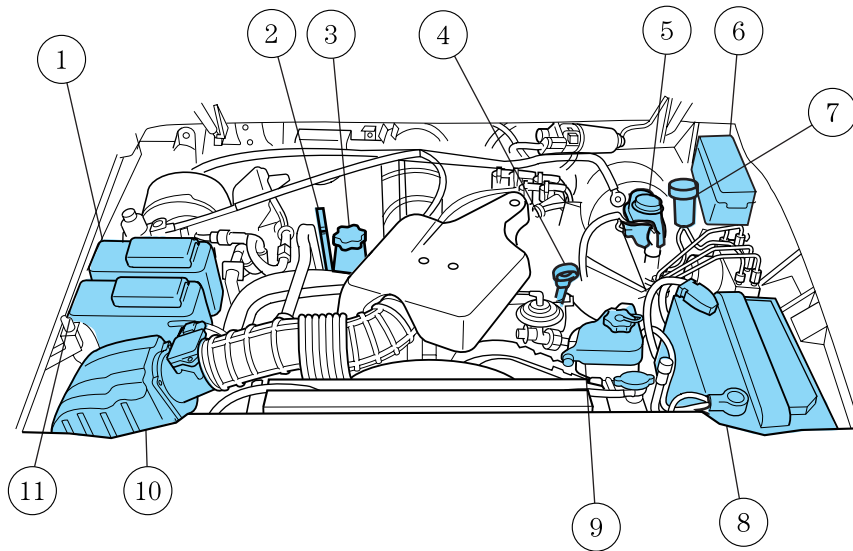
3.0L V6 engine



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

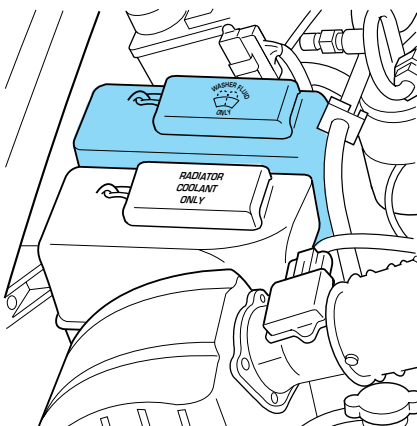
Maintenance and Specifications

WINDSHIELD WASHER FLUID

Check the washer fluid whenever you stop for fuel. The reservoir is highlighted with a  symbol.

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 ESR-M17P5-A. 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 4.5° C (40° F), 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.

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

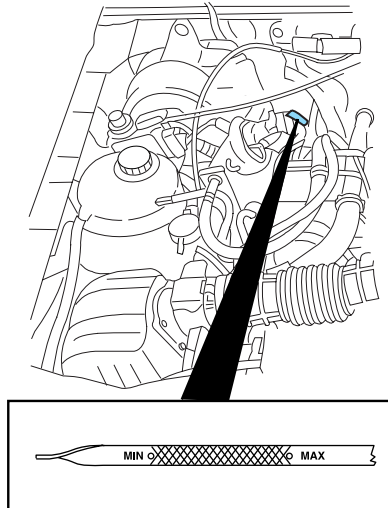
Checking the engine oil

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).

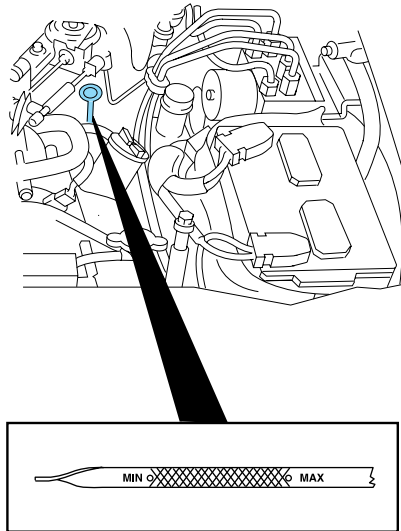
Maintenance and Specifications

4. Open the hood. Protect yourself from engine heat.
 5. Locate and carefully remove the engine oil level indicator (dipstick).
- 2.3L I4 engine



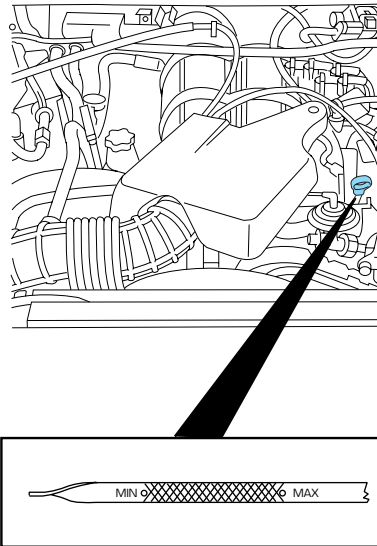
Maintenance and Specifications

- 3.0L V6 engine



Maintenance and Specifications

- 4.0L SOHC V6 engine

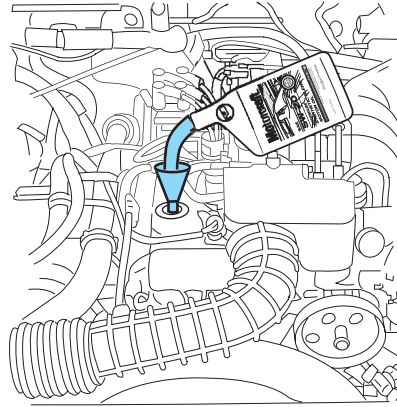


6. Wipe the indicator clean. Insert the indicator fully, then remove it again.

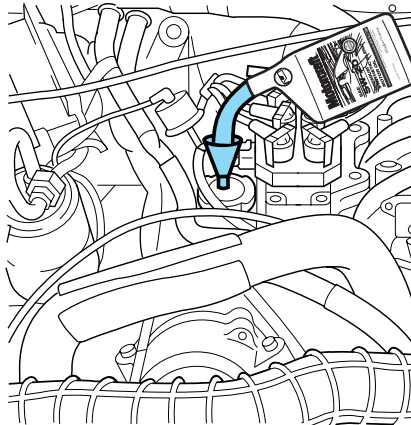
- If the oil level is **between the MIN and MAX marks**, the oil level is acceptable, **DO NOT ADD OIL**.
- If the oil level is below the MIN mark, add enough oil to raise the level within the MIN-MAX range.

Maintenance and Specifications

- 2.3L I4 engine

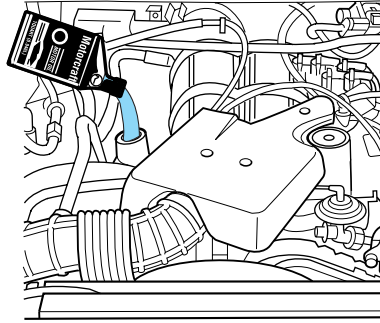


- 3.0L V6 engine



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 clockwise until three clicks can be heard.

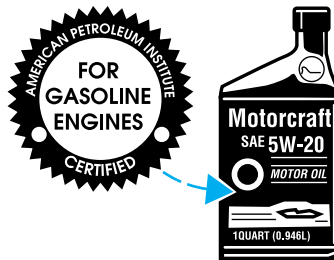
To avoid possible oil loss, DO NOT operate the vehicle with the engine oil level indicator and/or the engine oil filler cap removed.

Maintenance and Specifications

Engine Oil Recommendations

2.3L & 3.0L Engines

Look for this certification trademark.



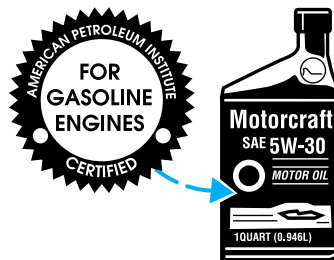
SAE 5W-20 engine oil is recommended.

Change your engine oil and filter according to the appropriate schedule listed in the scheduled maintenance guide.

Do not use supplemental engine oil additives, oil treatments or engine treatments. They are unnecessary and could, under certain conditions, lead to engine damage which is not covered by your warranty.

4.0L Engine

Look for this certification trademark.



SAE 5W-30 engine oil is recommended.

Only use oils "Certified For Gasoline Engines" by the American Petroleum Institute (API). Use Motorcraft or an equivalent oil meeting Ford Specification WSS-M2C205-A.

Do not use supplemental engine oil additives, oil treatments or engine treatments. They are unnecessary and could, under certain conditions, lead to engine damage which is not covered by your warranty.

Change your engine oil according to the appropriate schedule listed in the scheduled maintenance guide.

Maintenance and Specifications

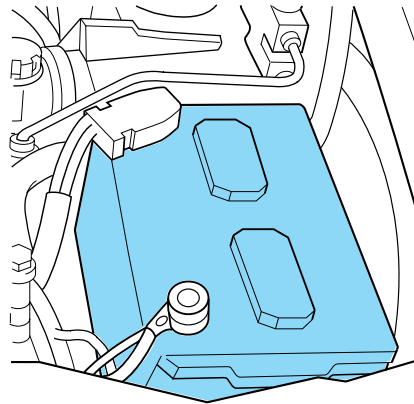
Engine Oil Filter Recommendation

Change your engine oil filter 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.

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.

Maintenance and Specifications

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.



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.

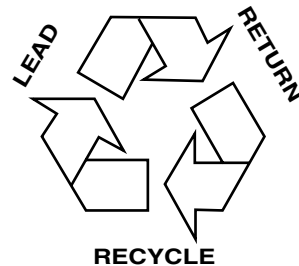
Maintenance and Specifications

- 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.

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

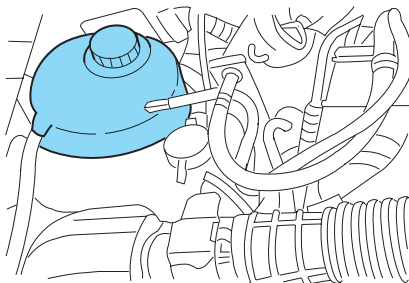
Checking engine coolant

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 -36° C (-34° F). 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 "cold full" or "cold fill range" level in the coolant reservoir. If the level falls below, add coolant per the instructions in the *Adding Engine Coolant* section.

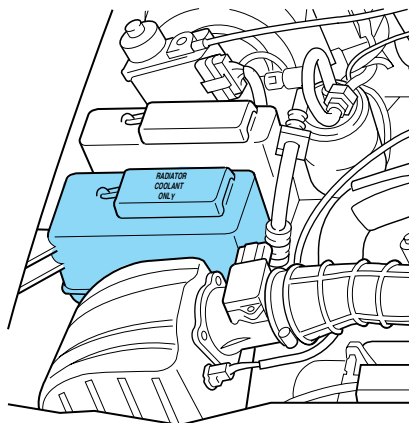
Maintenance and Specifications

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 -36° C (-34° F).**
- **Boiling protection up to 129° C (265° F).**
- **Protection against rust and other forms of corrosion.**
- **Enables calibrated gauges to work properly.**
- 2.3L engines



- 3.0L and 4.0L engines



When the engine is cold, check the level of the engine coolant in the reservoir.

- The engine coolant should be at the “cold fill level” or within the “cold fill range” as listed on the engine coolant reservoir (depending upon application).

Maintenance and Specifications

- 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.

The cooling system in your vehicle is filled with either green-colored Motorcraft Premium Engine Coolant meeting Ford specification ESE-M97B44-A or yellow-colored Motorcraft Premium Gold Engine Coolant meeting Ford Specification WSS-M97B51-A1. To determine your vehicle's coolant type (color), check your coolant reservoir.

- **Add Motorcraft Premium Engine Coolant (green-colored), VC-4-A (U.S.) or CXC-10 (Canada) or Motorcraft Premium Gold Engine Coolant (yellow-colored), VC-7-A (VC-7-B in Oregon), depending on the type of coolant originally equipped in your vehicle.** If you are unsure which type of coolant your vehicle requires, check your coolant reservoir or contact your local dealer.

Note: Use of Motorcraft Cooling System Stop Leak Pellets, VC-6, darkens 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.
- **Do not mix with recycled coolant unless from a Ford-approved recycling process (see *Use of Recycled engine coolant* section).**

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 “cold full” 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.



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 (an opaque plastic bottle). Slowly turn cap counterclockwise (left) until pressure begins to release.
3. Step back while the pressure releases.
4. When you are sure that all the pressure has been released, use the cloth to turn it counterclockwise and remove the cap.

Maintenance and Specifications

5. Fill the coolant reservoir slowly with the proper coolant mixture (see above), to within the “cold fill range” or the “cold full” 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* section. 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 recommends the use of a recycled engine coolant produced by Ford-approved processes in vehicles originally equipped with Motorcraft Premium Engine Coolant (green-colored). However, not all coolant recycling processes produce coolant that meets Ford specification ESE-M97B44-A. Use of such coolant may harm the engine and cooling system components.

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 chapter.

Fill your engine coolant reservoir as outlined in *Adding engine coolant* in this chapter.

Maintenance and Specifications

Severe climates

If you drive in extremely cold climates (less than -36°C [-34°F]):

- **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 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.

Maintenance and Specifications

 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.

 Fuel ethanol and 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. Fuels such as gasoline and ethanol are 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.
- 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



Maintenance and Specifications

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 and/or ethanol 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.
- FFV fuel tanks may contain zero to 85 percent ethanol. Any fuel blends containing gasoline and ethanol should be treated the same as “Fuel Ethanol”. To identify if your vehicle is an FFV, check your VIN or the label on the inside of your fuel filler door. When checking the VIN look for the engine type identifier (8th character). If your vehicle is an FFV, then the character will be labeled as a “K.”

Pure ethanol is the alcohol which is the intoxicating agent in liquor, beer and wine. It is distilled from the fermentation of plants such as field corn and sugar cane. When ethanol is used in the making of motor fuels, a small amount of a bad tasting chemical is added to discourage beverage use. The resulting fuel is called E₄100 meaning 100% pure ethanol diluted by 2% to 5% gasoline as the “denaturant.”

Fuel ethanol (summer blend_d) is then made by adding 15% more unleaded gasoline. The resulting fuel also has a higher octane rating than unleaded regular gasoline and other properties which allow engine designs with greater efficiency and power.

Winter blends may contain up to 30% (E70) unleaded gasoline (25% plus the denaturant) to enhance cold engine starts. Severely cold weather may require additional measures for reliable starting. Refer to *Cold Weather Starting* in the *Driving* chapter.

Ethanol is more chemically active than gasoline. It corrodes some metals and causes some plastic and rubber components to swell, break down or become brittle and crack, especially when mixed with gasoline. Special materials and procedures have been developed for flexible fuel vehicles and the dispensers used by ethanol fuel providers.



Flexible fuel components and standard unleaded gasoline fuel components are not interchangeable. If your vehicle is not serviced in accordance with flexible fuel vehicles procedures, damage may occur and your warranty may be invalidated.

Maintenance and Specifications



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.

Fuel Filler Cap

Your fuel tank filler cap has an indexed design with a 1/8 turn on/off feature.

When fueling your vehicle:

1. Turn the engine off.
2. Carefully turn the filler cap counterclockwise 1/8 of a turn until it stops.
3. Pull to remove the cap from the fuel filler pipe.
4. To install the cap, align the tabs on the cap with the notches on the filler pipe.
5. Turn the filler cap clockwise 1/8 of a turn until it stops.

“Check Fuel Cap” illuminates when the ignition is turned to the ON position to ensure your bulb is working. When this light turns on, check the fuel filler cap. Continuing to operate the vehicle with the Check Fuel Cap light on, can activate the Service Engine Soon warning. 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.**

Maintenance and Specifications

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.

If your vehicle is a flexible fuel vehicle (FFV), use only UNLEADED FUEL and (E85) ETHANOL. The use of leaded fuel is prohibited by law and could damage your vehicle.

Do not use fuel containing methanol. It can damage critical fuel system components.

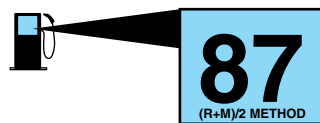
Your vehicle was not designed to use fuel or fuel additives with metallic compounds, including manganese-based compounds containing MMT.

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

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.



Unleaded Gasoline engines

Your vehicle is designed to use “Regular” unleaded gasoline with an (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.

Maintenance and Specifications

FFV engine (if equipped)

Your vehicle is designed to use (E85) Fuel Ethanol, “Regular” unleaded gasoline or any percentage of the two fuels combined.

U.S. government regulations require fuel ethanol dispensing pumps to have a small, square, orange and black label with the common abbreviation or the appropriate percentage for that region. Use of other fuels such as Fuel Methanol may cause powertrain damage, a loss of vehicle performance, and your warranty may be invalidated.

Fuel quality

Many of the world’s automakers issued 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. In Canada, look for fuels that display the **Auto Makers’ Choice™** logo.



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.

Unleaded Gasoline engines

If you are experiencing starting, rough idle or hesitation driveability problems during a cold start, try a different brand of “Regular” unleaded gasoline. “Premium” unleaded gasoline is not recommended (particularly in the United States) because it may cause these problems to become more pronounced. If the problems persist, see your dealer or a qualified service technician.

Maintenance and Specifications

FFV engine (if equipped)

Your FFV will operate well on ordinary “Regular” unleaded gasoline, but only the highest quality fuel ethanol will provide the same level of protection and performance. To identify if your vehicle is an FFV, check your VIN or the label on the inside of your fuel filler door. When checking the VIN, look for the engine type identifier (8th character). If your vehicle is an FFV, then the character will be labeled as a “K.”

If you operate your vehicle 50% or more of the time on ethanol, you should follow a different maintenance schedule. See the *Scheduled Maintenance Guide* for more information.

If you are experiencing a rough or rolling idle after start-up with the outside temperature above 27° C (80° F), the idle should improve within 10 to 30 seconds. If the problems persist below this temperature, see your dealer or a qualified service technician.

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.

Maintenance and Specifications

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 1,600 km (1,000 miles) of driving (engine break-in period). You will get a more accurate measurement after 3,000 km–5,000 km (2,000 miles–3,000 miles).

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.

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.

Maintenance and Specifications

Calculating fuel economy

1. Fill the fuel tank completely and record the initial odometer reading (in kilometers or miles).
2. Each time you fill the tank, record the amount of fuel added (in liters or gallons).
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: **Multiply liters used by 100, then divide by total kilometers traveled.**

Calculation 2: **Divide total miles traveled by total gallons used.**

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 88 km/h [55 mph] uses 15% less fuel than traveling at 105 km/h [65 mph]).
- Revving the engine before turning it off may reduce fuel economy.
- Using the air conditioner or defroster may reduce fuel economy.

Maintenance and Specifications

- 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.
- 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 0.4 km/L [1 mpg] is lost for every 180 kg [400 lb] 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 12–16 km (8–10 miles) 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.

Maintenance and Specifications

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 L/100 km (MPG) 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:

- 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.

Maintenance and Specifications



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.

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:

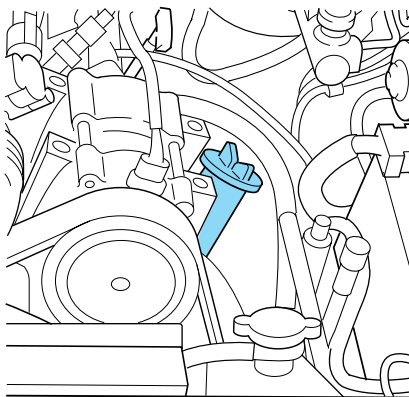
- First, at least 10 minutes of driving on an expressway or highway.
- Next, at least 20 minutes driving in stop-and-go, city-type traffic with at least four idle periods.

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

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.

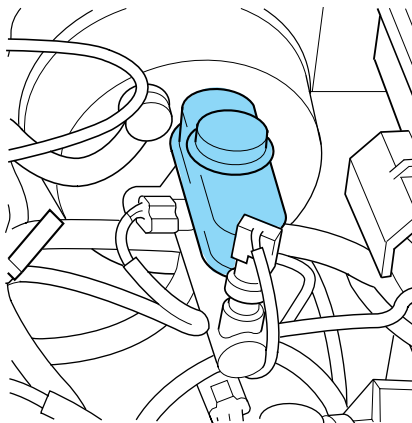
Maintenance and Specifications

BRAKE FLUID

Checking and adding brake fluid

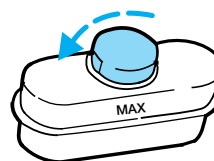
Brake fluid should be checked and refilled as needed. Refer to the scheduled maintenance guide for the service interval schedules.

1. Clean the reservoir cap before removal to prevent dirt or water from entering the reservoir.



2. Visually inspect the fluid level.

3. If necessary, add brake fluid from a clean un-opened container until the level reaches MAX. Do not fill above this line.



4. Use only a DOT 3 brake fluid certified to meet Ford specification ESA-M6C25-A. Refer to *Lubricant specifications* in this chapter.



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.



If you use a brake fluid that is not DOT 3, you will cause permanent damage to your brakes.



Do not let the reservoir for the master cylinder run dry. This may cause the brakes to fail.

Maintenance and Specifications

CLUTCH FLUID (IF EQUIPPED)

Check the fluid level. Refer to the scheduled maintenance guide for the service interval schedules.

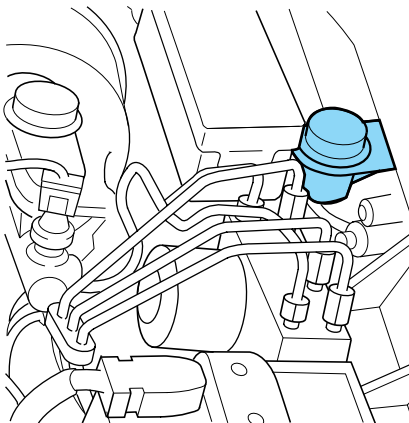
During normal operation, the fluid level in the clutch reservoir should remain constant. If the fluid level drops, refill the fluid level to the step in the reservoir.

Use only a DOT 3 brake fluid designed to meet Ford specification ESA-M6C25-A. Refer to *Lubricant Specifications* in this chapter.



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 (if equipped)

Refer to your scheduled maintenance guide for scheduled intervals for fluid checks and changes. Your transmission does not consume fluid. However, the fluid level should be checked if the transmission is not working properly, i.e., if the transmission slips or shifts slowly or if you notice some sign of fluid leakage.

Automatic transmission fluid expands when warmed. To obtain an accurate fluid check, drive the vehicle until it is at normal operating

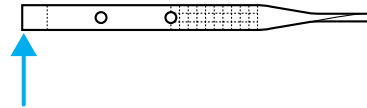
Maintenance and Specifications

temperature (approximately 30 km [20 miles]). If your vehicle has been operated for an extended period at high speeds, in city traffic during hot weather or pulling a trailer, the vehicle should be turned off for about 30 minutes to allow fluid to cool before checking.

1. Drive the vehicle 30 km (20 miles) or until it reaches normal operating temperature.
2. Park the vehicle on a level surface and engage the parking brake.
3. With the parking brake engaged and your foot on the brake pedal, start the engine and move the gearshift lever through all of the gear ranges. Allow sufficient time for each gear to engage.
4. Latch the gearshift lever in P (Park) and leave the engine running.
5. Remove the dipstick, wiping it clean with a clean, dry lint free rag. If necessary, refer to *Identifying components in the engine compartment* in this chapter for the location of the dipstick.
6. Install the dipstick making sure it is fully seated in the filler tube.
7. Remove the dipstick and inspect the fluid level. The fluid should be in the designated area for normal operating temperature or ambient temperature.

Low fluid level

Do not drive the vehicle if the fluid level is at the bottom of the dipstick and the ambient temperature is above 10°C (50°F).

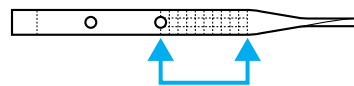


Correct fluid level

The transmission fluid should be checked at normal operating temperature 66°C-77°C (150°F-170°F) on a level surface. The normal operating temperature can be reached after approximately 30 km (20 miles) of driving.

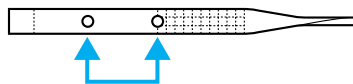
You can check the fluid without driving if the ambient temperature is above 10°C (50°F). However, if fluid is added at this time, an overfill condition could result when the vehicle reaches normal operating temperature.

The transmission fluid should be in this range if at normal operating temperature (66°C-77°C [150°F-170°F]).



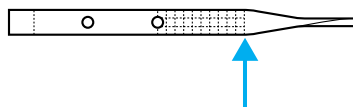
Maintenance and Specifications

The transmission fluid should be in this range if at ambient temperature (10°C-35°C [50°F-95°F]).



High fluid level

Fluid levels above the safe range may result in transmission failure. An overfill condition of transmission fluid may cause shift and/or engagement concerns and/or possible damage.



High fluid levels can be caused by an overheating condition.

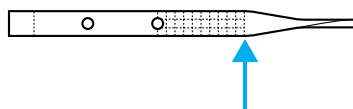
Adjusting automatic transmission fluid levels

Before adding any fluid, make sure the correct type is used. The type of fluid used is normally indicated on the dipstick and also in the *Lubricant specifications* section in this chapter.

Use of a non-approved automatic transmission fluid may cause internal transmission component damage.

If necessary, add fluid in 250 ml (1/2 pint) increments through the filler tube until the level is correct.

If an overfill occurs, excess fluid should be removed by a qualified technician.



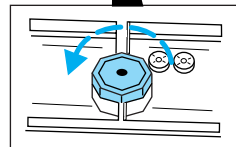
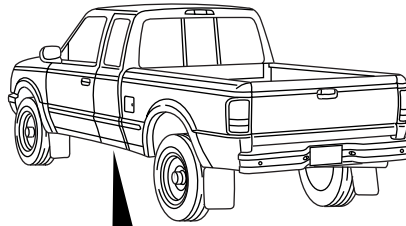
An overfill condition of transmission fluid may cause shift and/or engagement concerns and/or possible damage.

Do not use supplemental transmission fluid additives, treatments or cleaning agents. The use of these materials may affect transmission operation and result in damage to internal transmission components.

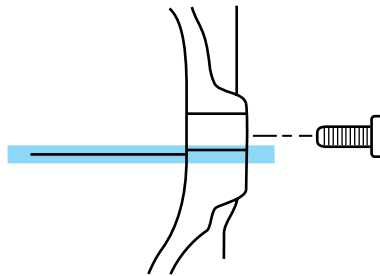
Maintenance and Specifications

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.

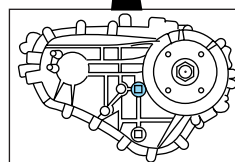
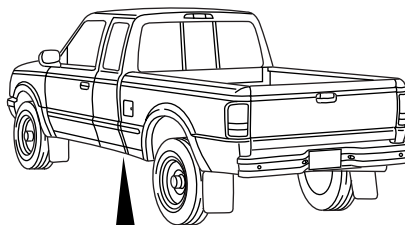


Use only fluid that meets Ford specifications. Refer to *Lubricant Specifications* in this chapter.

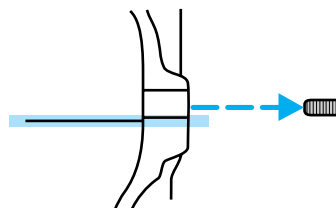
Maintenance and Specifications

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.

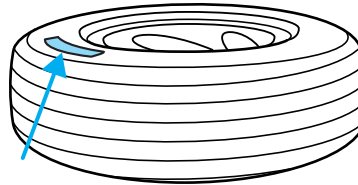
DRIVELINE UNIVERSAL JOINT AND SLIP YOKE

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

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 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 climates.

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.

Maintenance and Specifications



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.

SERVICING YOUR TIRES

Checking the tire pressure

- Use an accurate tire pressure gauge.
- Check the tire pressure when tires are cold, after the vehicle has been parked for at least one hour or has been driven less than 5 km (3 miles).
- Adjust tire pressure to recommended specifications found on the Certification Label. Tire pressure information can also be found on the Tire Information label located on the inside of the fuel filler door.



Improperly inflated tires can affect vehicle handling and can fail suddenly, possibly resulting in loss of vehicle control, vehicle rollover and/or personal injury.

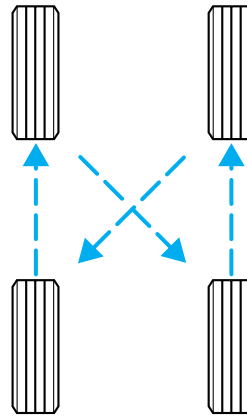
Maintenance and Specifications

Tire rotation

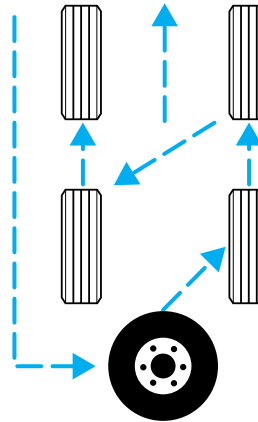
Because your vehicle's tires perform different jobs, they often wear differently. To make sure your tires wear evenly and last longer, rotate them as indicated in the scheduled maintenance guide. If you notice that the tires wear unevenly, have them checked.

The following procedure applies to vehicles equipped with single rear wheels, if your vehicle is equipped with dual rear wheels it is recommended that only the front wheels be rotated (side to side).

- Four tire rotation



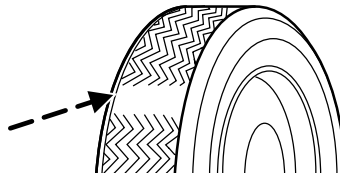
- Five tire rotation



Maintenance and Specifications

Replacing the tires

Replace the tires when the wear band is visible through the tire treads. Due to exposure to the elements and exhaust you should replace the spare tire when you replace the other tires.



When replacing full size tires, never mix radial bias-belted, or bias-type tires. Use only the tire sizes that are listed on the Certification Label. Make sure that all tires are the same size, speed rating, and load-carrying capacity. Use only the tire combinations recommended on the label. If you do not follow these precautions, your vehicle handling may be affected which can lead to loss of vehicle control, vehicle rollover and/or personal injury.



Make sure that all replacement tires are of the same size, type, speed rating, load-carrying capacity and tread design (e.g., “All Terrain”, “Touring”, etc.), as originally offered by Ford.



Do not replace your tires with “high performance” tires or larger size tires.



Failure to follow these precautions, your vehicle handling may be adversely effected which can lead to loss of vehicle control, vehicle rollover and/or personal injury.

Tires that are larger or smaller than your vehicle’s original tires may also affect the accuracy of your speedometer.

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.

Maintenance and Specifications



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.

MOTORCRAFT PART NUMBERS

Component	2.3L I4 engine	3.0 L V6 engine	3.0L V6 FFV engine	4.0L V6 engine
Air filter element	FA-1658	FA-1658	FA-1658	FA-1658 FA-1665 (FX4 only)
Fuel filter	FG-1002	FG-1002	FG-1002	FG-1002
Battery	BXT-59	BXT-59	BXT-59	BXT-59
Oil filter	FL-400S	FL-400S	FL-400S	FL-820S
PCV valve	EV-227	EV-130	EV-130	EV-225

Maintenance and Specifications

Component	2.3L I4 engine	3.0 L V6 engine	3.0L V6 FFV engine	4.0L V6 engine
Spark plugs*	AWSF-32FEM**	AWSF-32PP***	AGSF-22PP***	AGSF-34FP

* Refer to Vehicle Emissions Control Information (VECI) decal for spark plug gap information.

** Two spark plugs per cylinder required (eight total).

*** If any spark plug needs to be removed for inspection, it must be re-installed in the same cylinder. Cylinders No.1, 2 and 3 have a "PG" suffix. Cylinders No. 4, 5 and 6 have a "P" suffix. If any spark plug needs to be replaced, use only spark plugs with the service part number suffix letters "PP" as shown on the engine decal.

REFILL CAPACITIES

Fluid	Ford Part Name	Application	Capacity
Engine oil (includes filter change)	Motorcraft SAE 5W- 20 Premium Synthetic Blend Motor Oil	2.3L engine	3.8L (4.0 quarts)
		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	All	Fill to range on dipstick or 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 Engine Coolant (green-colored) or 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)	62.4L (16.5 gallons)
		Regular cab (Long wheel base)	75.7L (20.0 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	Motorcraft SAE 80W-90 Premium Rear Axle Lubricant	All	2.4-2.5L (5.0-5.3 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 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.

Maintenance and Specifications

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.

Add 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.

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
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	F5AZ-19553-AA	ESR-M13P4-A
Engine coolant	Motorcraft Premium Engine Coolant (green-colored)	VC-4-A (US) or CXC-10 (Canada)	ESE-M97B44-A
	Motorcraft Premium Gold Engine Coolant (yellow-colored)	VC-7-A	WSS-M97B51-A1

Maintenance and Specifications

Item	Ford part name or equivalent	Ford part number	Ford specification
Engine oil	2.3L and 3.0L engines Motorcraft SAE 5W-20 Premium Synthetic Blend Motor Oil	XO-5W20-QSP	WSS-M2C153-H and API Certification Mark
	4.0L engines Motorcraft SAE 5W-30 Super Premium Motor Oil	XO-5W30-QSP	WSS-M2C205-A and API Certification Mark
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

Maintenance and Specifications

Item	Ford part name or equivalent	Ford part number	Ford specification
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

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

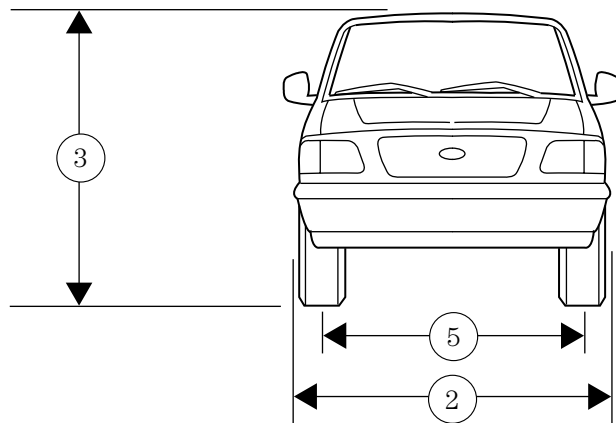
Engine	2.3L I4 engine	3.0L V6 engine	4.0L V6 engine
Cubic inches	138	182	245
Required fuel	87 octane	87 octane	87 octane
Firing order	1-3-4-2	1-4-2-5-3-6	1-4-2-5-3-6
Spark plug gap	1.04-1.19 mm (0.041-0.047 inch)	1.07-1.17 mm (0.042-0.046 inch)	1.3-1.4 mm (0.052-0.056 inch)
Ignition system	EDIS	EDIS	EDIS

Maintenance and Specifications

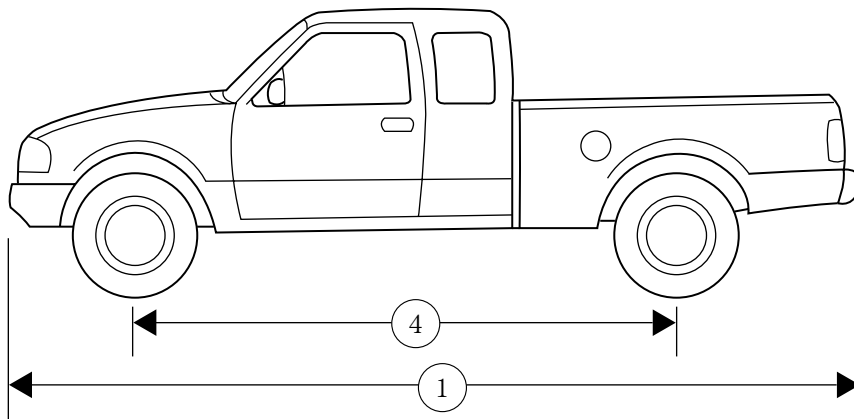
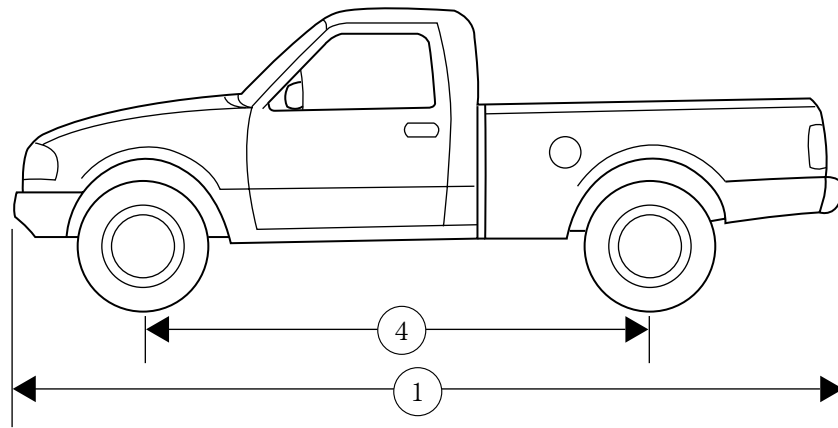
Engine	2.3L I4 engine	3.0L V6 engine	4.0L V6 engine
Compression ratio	9.7:1	9.7:1	9.0:1

VEHICLE DIMENSIONS

Vehicle dimensions	Regular Cab Short Wheel Base (SWB) mm (in)	Regular Cab Long Wheel Base (LWB) mm (in)	Supercab mm (in)
(1) Overall length	4 763 (187.5)	5 093 (200.5)	5 153 (202.9)
(2) Overall width	1 785 (70.3)	1 785 (70.3)	1 785 (70.3)
(3) Overall height 4x2/4x4	1 593.5 (62.7) / 1 655 (65.2)	1 596 (62.8) / 1 655 (65.2)	1 599 (62.9) / 1 657 (65.2)
(4) Wheelbase	2 831 (111.4)	2 983 (117.4)	3 192 (125.7)
(5) Track - Front	1 486 (58.5)	1 486 (58.5)	1 485 (58.5)
(5) Track - Rear	1 455 (57.3)	1 455 (57.3)	1 455 (57.3)



Maintenance and Specifications



Maintenance and Specifications

IDENTIFYING YOUR VEHICLE

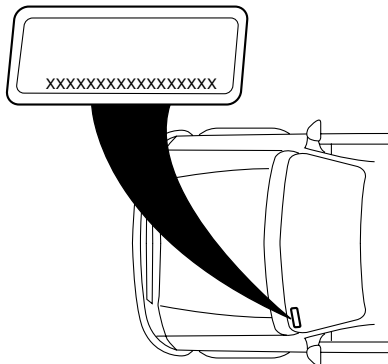
Certification label

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 front door latch pillar on the driver's side.

MFD. BY FORD MOTOR CO. IN U.S.A.	
DATE: XXXXX	GVWR: XXXXX LB/ XXXXX KG
FGAWR: XXXXXX/XXXXXXXX	RGAWR: XXXXXX/XXXXXXXX
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.	
VIN: XXXXXXXXXXXXXXXX	TYPE: XXXXXXXXXXXXXXXX
	
MAXIMUM LOAD=OCCUPANTS + LUGGAGE=XXXKG/XXXLB	
OCCUPANTS: X TOTAL X FR X 2ND X RR OCCUPANTS LUGGAGE	
XX XXXKG/XXXLB	
TIRE: XXXX/XXXXX XXX X XXXKG/XXXLB	
PRESSURE (FR) XXX kPa/ XX PSI COLD	
PRESSURE (RR) XXX kPa/ XX PSI COLD	
TRAILER TOWING - SEE OWNER GUIDE	
EXT PNT: XXXXXX XXXXXX RC: XX DSO: XXXX F0000	
BAR INT TR TP/PS R AXLE TR SPR T0000	
X XX XXX X XX X XXXX	
UTC VFOHT-15294A10-GA	

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

FORD ACCESSORIES FOR YOUR VEHICLE

A wide selection of genuine Ford accessories are available for your vehicle through your local authorized Ford, Lincoln Mercury 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 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 20,000 km (12,000 miles) (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 60,000 km (36,000 miles) (whichever occurs first). Contact your dealer for details and a copy of the warranty.

Not all accessories are available for all models.

Vehicle Security

Cargo security shade
Keyless entry system
Styled wheel protector locks
Vehicle security systems

Comfort and convenience

Cargo cage / bed extender
Cargo organizers
Cargo retainer net
Engine block heaters
Manual sliding rear window
Remote start
Tire step

Travel equipment

Automatic headlamp system with DRL
Bed rail caps

Accessories

Bed tent (Short bed, Styleside only)
Cellular phone holder
Compass mirror
Compass mirror with outside temperature reading
Daytime running lights
First aid kit
Fog lights
Peace of mind kit
Pickup box rails (tubular)
Removable bike carrier (bed mount/hitch mount)
Running boards/bars
Speed control
Trailer hitch (Class III)
Trailer hitch bars and balls
Trailer hitch wiring adaptor
Trailgate table

Protection and appearance equipment

Air bag anti-theft locks
Bed mats
Bedliners
Bull bars (chrome & black)
Carpeted floor mats with logo
Door edge guards
Front end covers (full and sport)
Bug deflectors
Cap (hard — color keyed — Leer supplier branded)
Locking gas cap
Rear window deflector
Removable tailgate lock
Retractable bed hooks
Running boards and bars

Accessories

Side window air deflectors

Skid plate (4x4 only)

Spare tire lock

Tailgate protector

Tail lamp surrounds (chrome & black)

Tonneau covers — soft (snap and snapless)

Tonneau cover (hard 2 piece)

Tonneau cover (color keyed-Leer supplier branded)

Universal floor mats

Wheels

Wheel locks

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 or are not properly installed. When operated, such systems may cause the engine to stumble or stall or cause the transmission to be damaged or operate improperly. In addition, such systems may be damaged or their performance may be affected by operating your vehicle. (Citizens band [CB] transceivers, garage door openers and other transmitters with outputs of five watts or less will not ordinarily affect your vehicle's operation.)
- Ford cannot assume responsibility for any adverse effects or damage that may result from the use of such equipment.

Index

A

ABS (see Brakes) 156

Air bag supplemental restraint system 127–128

 and child safety seats 129

 description 128

 disposal 132

 driver air bag 130

 indicator light 12, 131

 operation 130

 passenger air bag 130

 passenger deactivation switch 132

Air cleaner filter 278

Air conditioning

 manual heating and air conditioning system 76

Ambulance packages 7

Antifreeze

 (see Engine coolant) 250

Anti-lock brake system

 (see Brakes) 156

Anti-theft system

 warning light 14

Audio system

 (see Radio) 18, 43, 61

Automatic transmission 159

 driving an automatic

 overdrive 160

 fluid, adding 269

 fluid, checking 269

 fluid, refill capacities 279

 fluid, specification 284

Auxiliary power point 91

Axle

 lubricant specifications ..282, 284

 refill capacities 279

 traction lok 158

B

Battery 248

 acid, treating emergencies 248

 charging system warning light 12

 jumping a disabled battery 213

 maintenance-free 248

 replacement, specifications ...278

 servicing 248

 voltage gauge 16

Bed extender 98

BeltMinder 123

Brakes 155

 anti-lock 156

 anti-lock brake system

 (ABS) warning light 12, 157

 brake warning light 11

 fluid, checking and adding 268

 fluid, refill capacities 279

 fluid, specifications 282, 284

 lubricant specifications ..282, 284

 parking 157

 shift interlock 159

Break-in period 5

Bulbs 82

C

Capacities for refilling fluids 279

Cargo area shade 98

Cargo net 98

CD-6 disc 61

CD-single 22

CD-single premium 43

Certification Label 287

Index

- Changing a tire 207
 - Child safety restraints 137
 - child safety belts 137
 - Child safety seats 140
 - attaching with tether straps ..144
 - in front seat 141
 - in rear seat 141
 - Cleaning your vehicle
 - engine compartment 230
 - instrument panel 233
 - interior 233
 - plastic parts 232
 - washing 229
 - waxing 229
 - wheels 230
 - wiper blades 232
 - Climate control (see Air conditioning or Heating) 75–76
 - Clock 21, 28, 41, 50, 60, 71
 - Clutch
 - fluid 269
 - operation while driving 163
 - recommended shift speeds 165
 - Console 98
 - Coolant
 - checking and adding 250
 - refill capacities 254, 279
 - specifications 282, 284
 - Cruise control (see Speed control) 93
 - Customer Assistance 194
 - Ford accessories for your vehicle 234, 288
 - Ford Extended Service Plan 221
 - Getting assistance outside the U.S. and Canada 225
 - Getting roadside assistance ...194
 - Getting the service you need 219
 - Ordering additional owner's literature 226
 - The Dispute Settlement Board 222
 - Utilizing the Mediation/Arbitration Program 225
- D**
- Daytime running lamps (see Lamps) 80
 - Dipstick
 - automatic transmission fluid 269
 - engine oil 241
 - Doors
 - door ajar warning 14
 - lubricant specifications 282
 - Driveline universal joint and slip yoke 273
 - Driving under special conditions 172, 175
 - sand 174
 - snow and ice 176
 - through water 174, 179
- E**
- Emergencies, roadside
 - jump-starting 213
 - Emission control system 265
 - Engine 284–285
 - check engine/service engine soon light 10
 - cleaning 230
 - coolant 250
 - idle speed control 248

Index

- lubrication
 - specifications 282, 284
 - refill capacities 279
 - service points 238–240
 - starting after a collision 196
- Engine block heater 154
- Engine oil 241
 - checking and adding 241
 - dipstick 241
 - filter, specifications 247, 278
 - recommendations 247
 - refill capacities 279
 - specifications 282, 284
- Exhaust fumes 155
- F**
- Flexible Fuel Vehicle (FFV) 255
- Fluid capacities 279
- Foglamps 80
- Four-Wheel Drive vehicles .14, 166
 - description 168
 - driving off road 170
 - electronic shift 168
 - indicator light 166
 - lever operated shift 166
 - preparing to drive your vehicle 159
- Fuel 255
 - calculating fuel economy 262
 - cap 13, 258
 - capacity 279
 - choosing the right fuel 259
 - comparisons with EPA fuel economy estimates 265
 - detergent in fuel 261
 - filling your vehicle with fuel 255, 258, 262
 - filter, specifications 261, 278
 - fuel pump shut-off switch 196
 - gauge 16
 - improving fuel economy 262
 - octane rating 259, 284–285
 - quality 260
 - running out of fuel 261
 - safety information relating to automotive fuels 255
- Fuel - flex fuel vehicle (FFV) 255, 259
- Fuses 197–198
- G**
- Gas cap (see Fuel cap) 13, 258
- Gas mileage (see Fuel economy) 262
- Gauges 15
 - battery voltage gauge 16
 - engine coolant temperature gauge 15
 - engine oil pressure gauge 16
 - fuel gauge 16
 - odometer 17
 - speedometer 17
 - tachometer 17
 - trip odometer 17
- GAWR (Gross Axle Weight Rating) 179
 - calculating 181
 - definition 179
 - driving with a heavy load 179
 - location 179
- GVWR (Gross Vehicle Weight Rating) 179
 - calculating 179, 181
 - definition 179
 - driving with a heavy load 179
 - location 179
- H**
- Hazard flashers 195

Index

Headlamps 80
 aiming 81
 bulb specifications 83
 daytime running lights 80
 flash to pass 81
 high beam 13, 81
 replacing bulbs 84
 turning on and off 80
 warning chime 15
 Heating
 heater only system 75
 heating and air conditioning
 system 76
 Hood 237

I

Ignition 151, 284–285
 Infant seats
 (see Safety seats) 140
 Inspection/maintenance (I/M)
 testing 266
 Instrument panel
 cleaning 233
 cluster 10
 lighting up panel and
 interior 81

J

Jack 207
 positioning 207, 211
 storage 207–210
 Jump-starting your vehicle 213

K

Keys 110–112
 key in ignition chime 15
 positions of the ignition 151

L

Lamps
 bulb replacement
 specifications chart 83
 cargo lamps 81
 daytime running light 80
 fog lamps 80
 headlamps 80
 headlamps, flash to pass 81
 instrument panel, dimming 81
 interior lamps 82–83
 replacing
 bulbs 82, 84–85, 87–88

Lane change indicator
 (see Turn signal) 82

Lights, warning and indicator 10
 air bag 12
 anti-lock brakes (ABS) 12, 157
 anti-theft 14
 brake 11
 charging system 12
 check coolant 11
 check engine 10
 cruise indicator 13
 door ajar 14
 fuel cap light 13
 high beam 13
 overdrive off 13
 safety belt 12
 speed control 97
 turn signal indicator 13

Limited slip axle (see Traction
 Loc) 158

Load limits 179
 GAWR 179
 GVWR 179
 trailer towing 179

Loading instructions 181

Lubricant specifications ...282, 284

Index

Lumbar support, seats 115

M

Manual transmission 163
 fluid capacities 279
 lubricant specifications 284
 reverse 165

Mirrors

side view mirrors (power) 93

Motorcraft parts 261, 278

O

Octane rating 259

Odometer 17

Oil (see Engine oil) 241

Overdrive 97

P

Panic alarm feature, remote
 entry system 108

Parking brake 157

Parts (see Motorcraft parts) 278

Power distribution box (see
 Fuses) 201

Power door locks 105

Power mirrors 93

Power point 91

Power steering 158
 fluid, checking and adding 267
 fluid, refill capacity 279
 fluid, specifications 282, 284

Power Windows 92

Preparing to drive your
 vehicle 159

R

Radio 18, 43, 61

Radio reception 74

Relays 197

Remote entry system 106, 108
 illuminated entry 110
 locking/unlocking

doors 105, 107

panic alarm 108

replacement/additional

transmitters 109

replacing the batteries 108

Roadside assistance 194

S

Safety belts (see Safety
 restraints) 14, 115, 117–120

Safety defects, reporting 228

Safety restraints 115, 117–120

belt minder 123

cleaning the safety belts 126

extension assembly 122

for adults 117–119

for children 136–137

lap belt 121

warning light and

chime 12, 14, 122–123

Safety seats for children 140

Seat belts (see Safety
 restraints) 115

Seats 114

child safety seats 140

SecuriLock passive anti-theft
 system 110–112

Servicing your vehicle 236

Snowplowing 7

Index

- Spare tire (see Changing the Tire) 207–208
- Spark plugs, specifications 278, 284–285
- Special notice
 - ambulance conversions 7
 - utility-type vehicles 6
- Specification chart, lubricants 282, 284
- Speed control 93
- Speedometer 17
- Starting your vehicle 151–152, 154
 - jump starting 213
- Steering wheel
 - controls 90, 93
 - tilting 90
- T**
- Tachometer 17
- Tailgate 100
- Temperature control (see Climate control) 75
- Tires 207, 274–275
 - changing 207–208, 211
 - checking the pressure 275
 - replacing 277
 - rotating 276
 - snow tires and chains 277
 - tire grades 275
 - treadwear 274
- Tonneau cover 101
- Towing 181
 - recreational towing 191
 - trailer towing 181
 - wrecker 218
- Traction-lok rear axle 158
- Transfer case
 - fluid checking 273
- Transmission
 - automatic operation 159
 - fluid, checking and adding (automatic) 269
 - fluid, checking and adding (manual) 272
 - fluid, refill capacities 279
 - lubricant specifications 282, 284
 - manual operation 163
- Trip odometer 17
- Trunk 105
- Turn signal 13, 82
- V**
- Vehicle dimensions 285
- Vehicle Identification Number (VIN) 287
- Vehicle loading 179
 - camper bodies 193
- Ventilating your vehicle 155
- W**
- Warning chimes 14–15
- Warning lights (see Lights) 10
- Washer fluid 241
- Water, Driving through 179
- Windows
 - power 92
- Windshield washer fluid and wipers
 - checking and adding fluid 241
 - checking and cleaning 89
 - operation 89
 - replacing wiper blades 90
- Wrecker towing 218