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#### **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 Motor Company product. 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 Mexico: www.ford.com.mx

• In Australia: www.ford.com.au

Additional owner information is given in separate publications.

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

Remember to pass on this vehicle's *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 to yourself or others? In this guide, answers to such questions are contained in comments highlighted by the warning triangle symbol. These comments should be read and observed.



## Warning symbols on your vehicle

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



## **Protecting the environment**

We must all play our part in protecting the environment. Correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials are significant



steps towards this aim. Information in this respect is highlighted in this guide with the tree symbol.

#### **BREAKING-IN YOUR VEHICLE**

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

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

#### **SPECIAL NOTICES**

#### **Emission warranty**

The New Vehicle Limited Warranty includes Bumper-to-Bumper Coverage, Safety Restraint Coverage, Corrosion Coverage, and 6.0L Power Stroke Diesel Engine Coverage. In addition, your vehicle is eligible for Emissions Defect and Emissions Performance Warranties. For a detailed description of what is covered and what is not covered, refer to the Warranty Guide that is provided to you along with your Owner's Guide.

#### Service Data Recording

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

## **Event Data Recording**

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

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

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

## **Special instructions**

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

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



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

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

## **Vehicle Symbol Glossary**

Safety Alert



See Owner's Guide



Fasten Safety Belt



Air Bag-Front



Air Bag-Side



Child Seat



Child Seat Installation Warning



Child Seat Lower Anchor



Child Seat Tether Anchor



Brake System



Anti-Lock Brake System



Brake Fluid -Non-Petroleum Based



Powertrain Malfunction



Speed Control



Master Lighting Switch



Hazard Warning Flasher



Fog Lamps-Front



Fuse Compartment



Fuel Pump Reset



Windshield Wash/Wipe



Windshield Defrost/Demist



Rear Window Defrost/Demist



## **Vehicle Symbol Glossary**

Power Windows Front/Rear



Power Window Lockout



Child Safety Door Lock/Unlock



Interior Luggage Compartment Release Symbol



Panic Alarm



Engine Oil



Engine Coolant



Engine Coolant Temperature



Do Not Open When Hot



Battery



Avoid Smoking, Flames, or Sparks



Battery Acid



Explosive Gas



Fan Warning



Power Steering Fluid



Maintain Correct Fluid Level



Emission System



Engine Air Filter



Passenger Compartment Air Filter



Jack



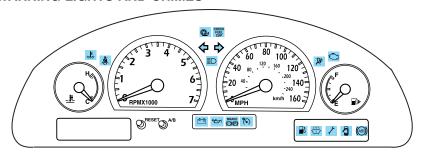
Check fuel cap



Low tire warning



#### 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.

#### **Emission system/Check engine:**

The Check Engine indicator light illuminates when the ignition is first turned to the ON position to check



the bulb. Solid illumination after the engine is started indicates the On Board Diagnostics System (OBD-II) has detected a malfunction. Refer to On board diagnostics (OBD-II) in the Maintenance and Specifications chapter. If the light is blinking, engine misfire is occurring which could damage your catalytic converter. Drive in a moderate fashion (avoid heavy acceleration and deceleration) and have your vehicle serviced immediately.



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

Check fuel cap: Illuminates when CHECK the fuel cap may not be properly FUF installed. Continued driving with CAP this light on may cause the Emission system/Check engine warning light to come on. Refer to Fuel Filler Cap in the Maintenance and Specifications chapter.

Brake system warning light: To confirm the brake system warning light is functional, it will momentarily illuminate when the ignition is turned to the ON position



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

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

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



illuminated. **Air bag readiness:** If this light fails

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

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



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



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



## Engine coolant temperature:

Illuminates when the engine coolant temperature is high. Stop the



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



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

#### Transmission PRNDL indicator:

Displays the gearshift positions. If an "E" character is displayed or



flashing, this indicates a

transmission malfunction, contact your dealer immediately. Operating the transmission with the "E" character illuminated may cause additional damage to the transmission.

#### Traction Control® active:

Illuminates when the Traction Control<sup>™</sup> is active. If the light remains on, have the system



serviced immediately, refer to the *Driving* chapter for more information.

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



**Speed control:** Illuminates when the speed control is activated. Turns off when the speed control system is deactivated.



**Low washer fluid:** Illuminates when the windshield washer fluid is low.



**Bulb warning:** A text message indicates when one of the exterior front turn lamps or rear brake/turn/tail lamps bulb has



burned out. Depress the RESET control to return to the Trip odometer display.

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



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



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



#### **Electronic throttle control:**

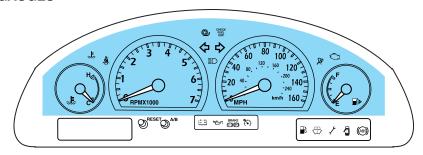
Illuminates when the engine has defaulted to a 'limp-home' operation. Report the fault to a dealer at the earliest opportunity.



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

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

#### **GAUGES**



**Speedometer:** Indicates the current vehicle speed.



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



possible, switch off the engine and let the engine cool.



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

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



**Trip odometer:** Registers the miles (kilometers) of individual journeys. To reset, depress the RESET control. To switch the display from Trip A to the Trip B, depress the A/B control.

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



**Tachometer:** Indicates the engine speed in revolutions per minute.

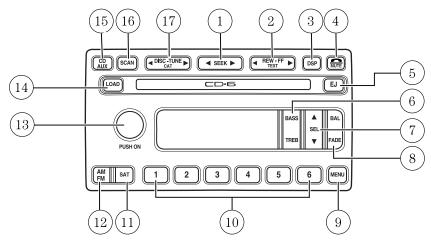


Fuel gauge: Indicates approximately how much fuel is left in the fuel tank (when the ignition is in the ON position). The fuel gauge may vary slightly when the vehicle is in motion or on a grade.



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

# AUDIOPHILE SATELLITE READY AM/FM STEREO IN-DASH SIX CD RADIO



1. **Seek:** Press and release SEEK ◀ / ▶ for previous/next



strong station or track.

2. **Rewind:** In CD mode, press until desired selection is reached.



**Fast forward:** In CD mode, press until desired selection is reached.

**TEXT:** TEXT is only available when equipped with Satellite radio. Your Audiophile radio comes equipped with Satellite ready capability. The kit to enable Satellite reception is available through your Ford dealer. Detailed Satellite instructions are included with the dealer installed kit. Dealer installed satellite kit available only in the continental United States.

## 3. DSP (Digital Signal

**Processing):** Press DSP to access the Ambiance menu. Ambiance gives the feeling of "being there" to your



music, creating increased clarity as well as an open and spacious feel to the music. Press SEL to engage/disengage. Turn the volume control to increase/decrease the level of ambiance.

**Occupancy:** Press DSP again to change the occupancy mode to optimize sound for ALL SEATS, DRIVER SEAT or TOP DOWN. Press SEL to scroll through settings.

4. **Mute:** Press to MUTE playing media; press again to return to playing media

- MUTE
- 5. **Eject:** Press to eject a CD. Press and hold to eject all loaded discs.



6. **Bass:** Press BASS; then press SEL  $\bigvee$  /  $\blacktriangle$  to decrease/increase the bass output.



**Treble:** Press TREB; then press SEL  $\nabla$  /  $\triangle$  to decrease/increase the treble output.



7. **Select:** Use with Bass, Treble, Balance and Fade controls to adjust levels and set the clock.



8. **Balance:** Press BAL; then press SEL ▼ / ▲ to shift sound to the left/right speakers.



**Fade:** Press FADE; then press SEL ▼ / ▲ to shift sound to the rear/front speakers.



9. **Menu:** Press MENU and SEL to access clock mode, RDS on/off, Traffic announcement mode, Program type mode, and Shuffle mode.



The Federal Communications Commission (FCC) and the Canadian Radio and Telecommunications Commission (CRTC) recommend that FM radio broadcasters use RDS technology to transmit information. FM radio stations are independently operated and individually elect to use RDS technology to transmit station ID and program type as desired.

**Traffic:** Allows you to hear traffic broadcasts. With the feature ON, press SEEK or SCAN to find a station broadcasting a traffic report (if it is broadcasting RDS data). *Traffic information is not available in most U.S. markets*.

**FIND Program type:** Allows you to search RDS-equipped stations for a certain category of music format: Classic, Country, Info, Jazz, Oldies, R&B, Religious, Rock, Soft, Top 40.

**Show TYPE:** Displays the station's call letters and format.

**Shuffle:** With a CD playing, press to play tracks in a random order. Press MENU until SHUF appears in the display. Use SEL to select SHUF DISC, SHUF TRAC or SHUF OFF.

**Compression:** With a CD playing, compression brings soft and loud CD passages together for a more consistent listening level. Press MENU until compression status is displayed. Press the SEL control to enable the compression feature when COMP OFF is displayed. Press the SEL control again to disable the feature when COMP ON is displayed.

**Setting the clock:** Press MENU until SELECT HOUR or SELECT MINS is displayed. Use SEL to manually increase ( $\blacktriangle$ ) or decrease ( $\blacktriangledown$ ) the hours/minutes. Press MENU again to disengage clock mode.

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



11. **SAT (if equipped):** Your Audiophile radio comes equipped

with Satellite Ready capability. The



kit to enable the Satellite reception is available through your Ford dealer. Detailed satellite instructions are included with the dealer installed kit. Dealer installed satellite kit available only in the continental United States.

12. **AM/FM:** Press to select AM/FM frequency band.



**Autoset:** Allows you to set the

strongest local radio stations without losing your original manually set preset stations for AM/FM1/FM2 . Press and momentarily hold AM/FM. AUTOSET will flash on the display. When the six strongest stations are filled, the station stored in preset 1 will begin playing. If there are less than six strong stations, the system will store the last one in the remaining presets. Press again to disengage.

13. **Power/volume:** Press to turn ON/OFF; turn to increase or decrease volume levels.



**Speed sensitive volume:** Radio volume changes automatically and slightly with vehicle speed to

compensate for road and wind noise. Recommended level is 1–3. Level 0 turns the feature off and level 7 is the maximum setting. Press and hold the volume control for five seconds. Then press SEL to increase ( $\blacktriangle$ ) or decrease ( $\blacktriangledown$ ) the volume setting. The level will appear in the display.

14. Load: Press to load a CD. Press and hold to load up to six discs.



15. CD AUX: Press to access CD or AUX mode.



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

16. Scan: Press SCAN to hear a brief sampling of radio stations or CD tracks. Press again to stop.



17. **Disc/Tune:** Press **◀** or **▶** to



manually tune down/up the radio frequency band, or to listen to the previous/next track on the CD.

CAT: CAT is only available when equipped with Satellite Radio. Your Audiophile radio comes equipped with Satellite ready capability. The kit to enable Satellite reception is available through your Ford dealer. Detailed Satellite instructions are included with the dealer installed kit. Dealer installed satellite kit available only in the continental United States.

For information regarding SIRIUS Satellite Radio, please call toll-free 888-539-SIRIUS (888-539-7474) or visit the SIRIUS website at www.siriusradio.com

#### **RADIO FREQUENCIES**

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

AM - 530, 540–1700, 1710 kHz FM- 87.7, 87.9–107.7, 107.9 MHz

#### RADIO RECEPTION FACTORS

There are three factors that can effect radio reception:

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

#### CD/CD PLAYER CARE

Do:

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

Don't:

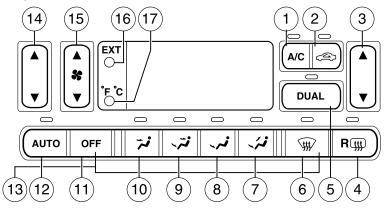
- Expose discs to direct sunlight or heat sources for extended periods of time.
- Insert more than one disc into each slot of the CD changer magazine.
- Clean using a circular motion.

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.

#### **AUDIO SYSTEM WARRANTY AND SERVICE**

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

## **DUAL ELECTRONIC AUTOMATIC TEMPERATURE CONTROL** (DEATC) SYSTEM



1. **A/C control:** Press to turn on A/C and manually control the air conditioning. Press again to disengage. Press AUTO for the system to automatically control the temperature.

2. **Recirculation control:** Press to engage/disengage. Used to manually enable or disable recirculated air



operation. When activated, recirculates air in the cabin thereby reducing the amount of time to cool down the interior of the vehicle. May also help reduce undesired odors from reaching the interior of the vehicle. Will work in all modes except defrost. Recirculation turns off automatically when floor, floor/defrost or defrost mode is selected. To reduce humidity inside the vehicle, turn recirculation off.

3. Passenger side temperature **control:** Press to engage the dual zone feature of the DEATC system. Allows the passenger to choose and control a different temperature than the driver, if desired.



4. **Rear defroster:** Press to defrost the rear window. Refer to RearWindow defroster for more information.



5. **DUAL** zone selector: Press to toggle the system between single zone and dual zone control.



- 6. (III) (Defrost): Distributes outside air through the windshield defroster ducts and the demister outlets. Can be used to clear ice or fog from the windshield. The system will automatically provide outside air to reduce window fogging.
- 7. : Distributes air through the windshield defroster ducts, demister outlets, and the floor ducts. The system will automatically provide outside air to reduce window fogging.
- 8. i Distributes air through the floor ducts. The system will automatically provide outside air to reduce window fogging.
- 9. **?**: Distributes air through the instrument panel, and the floor ducts.
- 10. 🔀 : Distributes air through the instrument panel.
- 11. **OFF:** Outside air is shut out and the fan will not operate.



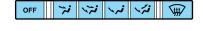
12. **Auto:** To engage automatic temperature control, press AUTO and select the desired temperature



using the temperature control. The system will automatically determine fan speed, airflow location, AC on or off, and outside or recirculated air, to heat or cool the vehicle to reach the desired temperature.

13. Manual override controls:

Allows you to manually select where airflow is directed. To return to full automatic control, press AUTO.



14. **Driver's side temperature control:** Controls the temperature on the driver side of the vehicle in dual zone and controls the temperature of the entire vehicle in single zone.



15. **Fan Speed:** Press to manually increase/decrease fan speed. In

manual mode, the display will



show \$\ \text{with a bar graph to}

indicate fan speed. Fan speed can be manually adjusted in AUTO mode. To allow the system to automatically control fan speed, press AUTO.

16. **EXT control:** Press to display the outside air temperature. Press

EXT

again to return to interior

temperature. Exterior readings are most accurate when the vehicle is moving.

## 17. Temperature conversion:

FC

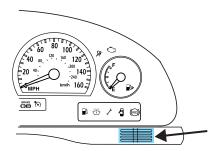
Press to toggle between Fahrenheit and Celsius temperature on the

DEATC display only. The set point temperatures in Celsius will be displayed in half-degree increments.

#### **OPERATING TIPS**

- To reduce fog build up on the windshield during humid weather, place the air flow selector in the position.
- To reduce humidity build up inside the vehicle: Do not drive with the air flow selector in the OFF position. Do not drive with recirculation engaged.
- In order to allow the vehicle to "breathe" using the outside air inlet vents, do not leave the air flow selector in the OFF position when the vehicle is parked.
- Remove any snow, ice or leaves from the air intake area at the base of the windshield.
- With the ignition in the OFF position after operating the vehicle, some vehicle sounds related to the climate control system may be heard.
- Approximately two minutes after key off, the air distribution doors may adjust their positions as part of the normal operating process.
- Demisters, located at the far left and right sides of the dash, usually blow out a small amount of airflow in order to reduce side window fogging.
- Outboard panel registers, located at the left and right sides of the dash, blow out a small amount of airflow when in Floor, Floor/Defrost, and Defrost modes. This also reduces side window fogging.

 Do not place items over the climate temperature sensor grid. This may cause improper operation of the system.



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

- 1. Select 🔑 .
- 2. Ensure that recirculation is disengaged.
- 3. Set the temperature control to full heat.
- 4. Set the fan to the highest speed.
- 5. Direct the outer instrument panel vents towards the side windows. To increase airflow to the outer instrument panel vents, close the vents

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



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

# REAR WINDOW DEFROSTER [##]

Press the rear window defroster control to clear the rear window of thin ice or fog. The light above the control will illuminate to indicate that the rear defroster is operating.



The ignition must be in the RUN position and the engine running in order to operate the rear window defroster.

The rear window defroster turns off automatically after a predetermined amount of time, if a low battery condition is detected, or if the ignition is turned to the OFF position. To manually turn off the rear window defroster at any time, press the control again.

Do not use razor blades or other sharp objects to clean the inside of the rear window or to remove decals from the inside of the rear window. This may cause damage to the heated grid lines and will not be covered by your warranty.

#### **CABIN AIR FILTER**

Your vehicle is equipped with a cabin air filter. The particulate air filtration system is designed to reduce the concentration of airborne particles such as dust, spores and pollen in the air being supplied to the interior of the vehicle. The particulate filtration system gives the following benefits to customers:

- Improves the customer's driving comfort by reducing particle concentration
- Improves the interior compartment cleanliness
- Protects the climate control components from particle deposits

The filter is located just in front of the windshield under the cowl grille on the passenger side of the vehicle.

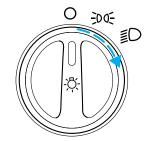
For more information, or to replace the filter, see your Ford or Lincoln Mercury dealer.

# MASTER LIGHTING SWITCH 🌣

O Turns the lamps off.

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

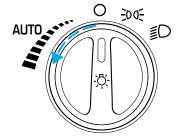
Turns on the headlamps, parking lamps, instrument panel lamps, license plate lamps and tail lamps.



# Autolamp control

The autolamp system provides light sensitive automatic on-off control of the exterior lights normally controlled by the master lighting switch.

The autolamp system also keeps the lights on for a preselected period of time after the ignition switch is turned to OFF.



- To turn autolamps on, rotate the control counterclockwise. The preselected time lapse is adjustable up to approximately three minutes by continuing to rotate the control counterclockwise.
- To turn autolamps off, rotate the control clockwise to OFF.

**Note:** The instrument panel lamps will only turn on if the autolamp control has determined it is night.

## Daytime running lamps (DRL) (Canada Only)

Turns the lowbeam headlamps on with a reduced output.

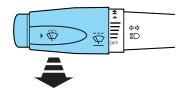
To activate with automatic transmission:

- the ignition must be in the RUN position;
- the headlamp control is in the OFF position, Parking lamps position, or Autolamp position when the autolamp function has not turned on the headlamps (daytime); and
- the transmission is out of Park.

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

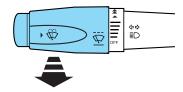
# High beams **≣**○

Pull toward you until control stops to activate. Repeat to deactivate.



# Flash to pass

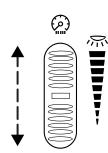
Pull toward you slightly to activate and release to deactivate.



## PANEL DIMMER CONTROL

Use to adjust the brightness of the instrument panel during parklamp, headlamp and autolamp operation.

- Rotate up to brighten.
- Rotate down to dim.
- Rotate fully up to turn on the floor and dome lights.

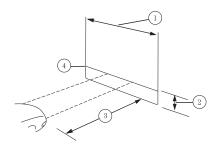


Note: When the headlamp switch is in the autolamp position, the panel dimmer control is only active when the autolamp has determined that it is night.

The dome light will only go on when the dome light switch is in the delay or ON position.

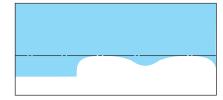
#### **HEADLAMP VERTICAL AIM ADJUSTMENT**

- 1. Park the vehicle directly in front of a wall or screen on a level surface, approximately 25 feet (7.6 meters) away.
- (1) 8 feet (2.4 meters)
- (2) Center height of lamp to ground
- (3) 25 feet (7.6 meters)
- (4) Horizontal reference line
- 2. Measure the height from the center of your headlamp to the ground and mark an 8 foot (2.4 meter) horizontal reference line on the vertical wall or screen at this



height (a piece of masking tape works well). The center of the lamp is marked by a 3.0 mm circle on the headlamp lens.

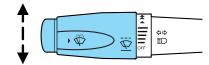
- 3. Turn on the low beam headlamps to illuminate the wall or screen and open the hood.
- 4. On the wall or screen you will observe a light pattern with flat edges at the top of the beam pattern. If the flat edges are not at the horizontal reference line, the beam will need to be adjusted. To see a clearer light pattern for adjusting, you may want to block the light from one headlamp while adjusting the other.



- 5. Locate the vertical adjuster on each headlamp, then use a 6 mm Allen wrench or screwdriver to adjust the headlamp up or down.
- $6.\ \mbox{HORIZONTAL}$  AIM IS NOT REQUIRED FOR THIS VEHICLE AND IS NON-ADJUSTABLE.
- 7. Close the hood and turn off the lamps.

# TURN SIGNAL CONTROL ⇔

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

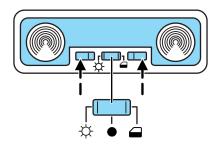


#### **INTERIOR LAMPS**

## Reading and dome lamps

The reading lamps are located in the header trim panel. Press the control next to the reading lamp to activate it.

The reading lamp assembly also contains an overhead dome lamp. This lamp is controlled by the center (OFF) control on the assembly. The dome lamp will stay on if the control is moved to the driver side (ON) position. When the



control is in the passenger side (delay) position, the lamp will only come on when a door is opened, or if the panel dimmer control is fully rotated up. If the control is moved to the center position, the lamp will not come on at all.

#### **BULB REPLACEMENT**

#### **Headlamp Condensation**

The headlamps are vented to equalize pressure. When moist air enters the headlamp(s) through the vents, there is a possibility that condensation can occur. This condensation is normal and will clear within 45 minutes of headlamp operation.

#### Replacing exterior bulbs

Check the operation of all of the bulbs periodically.

## 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, 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	Trade number
Park/turn lamps (front)	3457 AK (amber)
Supplemental parking lamps (if equipped)	912
Front side marker lamps	194
Rear side marker lamps	194
Headlamps	9007
Rear stop/turn/tail lamps	3157K
Backup lamps	3156K
Rear license plate lamps	168
High-mount brake lamp	See a dealer or qualified technician
Footwell courtesy lamps	168
Reading lamps	3886X
Dome lamp	6411
Glove box lamp	168
To replace all instrument panel lights - see your dealer.	

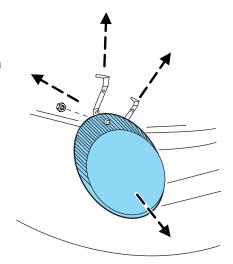
## Interior bulbs

Check the operation of all of the bulbs periodically.

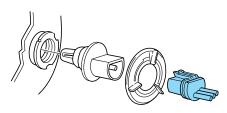
# Replacing headlamp bulbs

To remove the headlamp bulb:

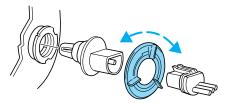
- 1. Make sure headlamp switch is in OFF position, then open the hood.
- 2. Pry up the two retainer pins to release the headlamp assembly from the vehicle.
- 3. Remove the nut from the back of the headlamp and pull headlamp forward.



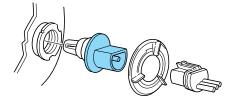
4. Disconnect the electrical connector from the bulb by pulling rearward.



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 from the lamp assembly by pulling it straight out of the lamp assembly.



To install the new bulb:

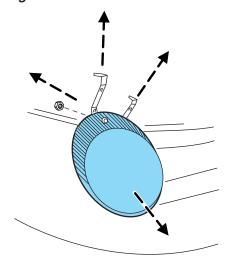
Handle a halogen headlamp bulb carefully and keep out of children's reach. Grasp the bulb only by its plastic base and do not touch the glass. The oil from your hand could cause the bulb to break the next time the headlamps are operated.

**Note:** If the bulb is accidentally touched, it should be cleaned with rubbing alcohol before being used.

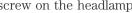
- 1. With the flat side of the new bulb's plastic base facing upward, insert the glass end of the bulb into the lamp assembly. Turn the bulb left or right to align the grooves in the plastic base with the tabs in the lamp assembly. When the grooves are aligned, push the bulb into the lamp assembly until the plastic base contacts the rear of the lamp assembly.
- 2. Install the bulb retaining ring over the plastic base and lock the ring by rotating clockwise until it snaps into place.
- 3. Connect the electrical connector to the bulb.
- 4. Install the headlamp on vehicle by aligning the lamp on the vehicle, push rearward to fully seat the lamp assembly and install the screw on the headlamp.
- 5. Push the two retainer pins down.
- 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 parking lamp/turn signal bulbs

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



- 4. Rotate bulb socket counterclockwise and remove from lamp assembly.
- 5. Carefully pull bulb straight out of socket and push in the new bulb.
- 6. Install bulb socket in lamp assembly by turning clockwise.
- 7. Install the headlamp on vehicle by aligning the lamp on the vehicle, push rearward to fully seat the lamp assembly and install the screw on the headlamp.



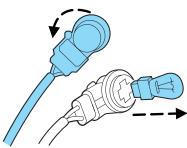
- 8. Push the two retainer pins down.
- 9. Turn the lamps on and make sure the new bulb works properly.

## Replacing front/rear side marker bulbs

- 1. Make sure the headlamp switch is in the OFF position and then remove the screw and carefully pull the lamp assembly out from the bumper.
- 2. Rotate bulb socket counterclockwise and remove from lamp assembly.
- 3. Carefully pull bulb straight out of socket and push in the new bulb.
- 4. To complete installation, follow the removal procedure in reverse order.



- 1. Make sure the headlamp switch is in the OFF position and then remove the screw and carefully pull the lamp assembly out from the bumper.
- 2. Rotate the bulb socket counterclockwise and remove from lamp assembly.
- 3. Pull the bulb straight out of the socket and push in the new bulb.
- 4. To complete installation, follow the removal procedure in reverse order.

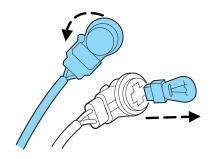


# Replacing tail/brake/turn/backup lamp bulbs

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

Prior to pulling the carpet away, in step 1, the trunk trim scuff plate must be removed. This can be accomplished by pulling gently on the component until the 6 push pins along the rear of the trunk release. The part can be placed aside and the carpet pulled away. To replace the piece, re-align the pins and push into place.

- 1. Make sure the headlamp switch is in the OFF position and then open the trunk and carefully pull the carpet away to expose the nut and washer assemblies.
- 2. Remove the two nut and washer assemblies from the lamp assembly.
- 3. Pull the lamp assembly towards the rear of the vehicle disengaging the ball stud locator from the ball stud socket in the body. Carefully remove the lamp assembly from the vehicle.
- 4. Rotate the bulb socket counterclockwise and remove from lamp assembly.
- 5. Pull the bulb straight out of the socket and push in the new bulb.
- 6. To complete installation, follow the removal procedure in reverse order.



# Lights

### Replacing license plate lamp bulbs

- 1. Make sure the headlamp switch is in the OFF position and then remove two screws and the license plate lamp assembly from the vehicle.
- 2. Rotate bulb socket counterclockwise and remove from lamp assembly.
- 3. Carefully pull the bulb from the socket and push in the new bulb.
- 4. Install the lamp assembly with two screws.

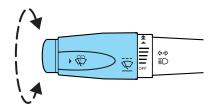


### Replacing high-mount brake lamp assembly

For bulb replacement, see a dealer or qualified technician.

#### **MULTI-FUNCTION LEVER**

**Windshield wiper:** Rotate the end of the control away from you to increase the speed of the wipers; rotate towards you to decrease the speed of the wipers.



**Windshield washer:** Push the end of the stalk:

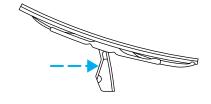
- briefly: causes a single swipe of the wipers without washer fluid.
- a quick push and hold: the wipers will swipe three times with washer fluid.
- a long push and hold: the wipers and washer fluid will be activated for up to ten seconds.

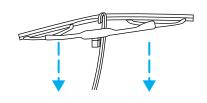


- 1. Pull the wiper arm away from the vehicle. Turn the blade at an angle from the wiper arm. Push the lock pin manually to release the blade and pull the wiper blade down toward the windshield to remove it from the arm.
- 2. Attach the new wiper to the wiper arm and press it into place until a click is heard.

Replace wiper blades at least once per year for optimum performance.

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



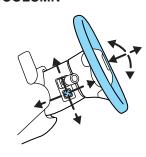


To prolong the life of the wiper blades, it is highly recommended to scrape off the ice on the windshield before turning on the wipers. The layer of ice has many sharp edges and can damage the micro edge of the wiper rubber element.

#### POWER TILT/TELESCOPE STEERING COLUMN

The steering column can be adjusted manually by moving the four-way rocker adjustment control located below the turn signal/wiper control stalk. Hold the control to adjust.

The telescope function is adjusted by moving the control toward the driver to telescope out and toward the instrument panel to telescope



The tilt function is adjusted by moving the control up or down.

During easy exit, when you remove the key, the column will move to the full in and up position. When the key is inserted into the ignition, the column will return to the previous setting.



Never adjust the steering wheel when the vehicle is moving.

#### **AUXILIARY POWER POINT (12VDC)**

Power outlets are designed for accessory plugs only. Do not insert any other object in the power outlet for this will damage the outlet and blow the fuse. 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 power point is an additional power source for electrical accessories. The auxiliary power point is located on the instrument panel.

Do not use the power point for operating the cigarette lighter element (if equipped).



To prevent the fuse from being blown, do not use the power point(s) over the vehicle capacity of 12 VDC/180W.

To prevent the battery from being discharged, do not use the power point longer than necessary when the engine is not running.

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

### Cigarette/Cigar lighter (if equipped)

Do not plug optional electrical accessories into the cigarette lighter socket.

Do not hold the lighter in with your hand while it is heating, this will damage the lighter element and socket. The lighter will be released from its heating position when it is ready to be used.

Improper use of the lighter can cause damage not covered by your warranty.

### **POWER WINDOWS**



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

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

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





#### One touch down

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





#### **Accessory delay**

With accessory delay, the window switches, radio, and the convertible top motor, may be used for up to ten minutes after the ignition switch is turned to the OFF position or until either front door is opened.

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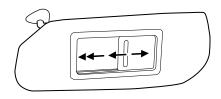
### Short drop glass

In order to improve door efforts and sealing, your vehicle is equipped with short drop glass. This feature lowers the glass when either door is opened. The glass returns to its closed position when the door is closed. If the optional removable top is not installed on your vehicle, this feature will also lower the glass when the convertible top switch is operated. The glass will return to its closed position if the transmission is shifted out of P (Park), or if the opposite door becomes closed.

Proper operation of the short drop glass requires that the windows be calibrated. Though your windows will have been calibrated before your vehicle is delivered to you, it is possible for the windows to lose calibration. If a window loses its calibration, your short drop feature will lower the window, but will not raise it again when the door is closed. To re-calibrate the window, press the up switch to raise the window until it completes its travel and hold the switch down for 2 seconds. Another possible effect of lost calibration is that the feature may not lower the window. To re-calibrate the window in this case, lower the window until it completes its travel and hold the switch down for 2 seconds. Immediately after releasing the window down switch, press the up switch to raise the window until it completes its travel and hold the switch down for 2 seconds.

#### **VISOR MIRROR**

To open the visor mirror, slide the mirror cover.



# POWER SIDE VIEW MIRRORS

To adjust your mirrors:

- 1. Select  $\mathbf{L}$  to adjust the left mirror or  $\mathbf{R}$  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 disable the adjust function.

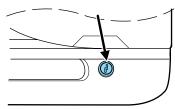


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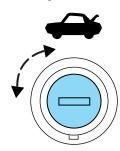
#### LOCKABLE AND ELECTRONIC TRUNK REMOTE CONTROL

The remote trunk release control is located on the driver's door trim panel and can be operated at any time, except when the security system is armed. This control will not work until the vehicle is disarmed.



You can render the switch inoperable by locking the button with your master key.

In the event of battery failure, you can open the trunk by using your master key on the key cylinder located behind the driver's seat.



#### **SPEED CONTROL**

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



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

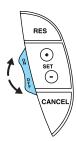
### Setting speed control

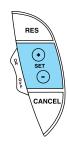
The controls for using your speed control are located on the steering wheel for your convenience.

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



- 4. Take your foot off the accelerator pedal.
- 5. The indicator (5) light on the instrument cluster will turn on.



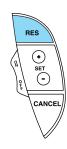


#### Note:

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

#### Resuming a set speed

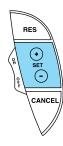
Press the RES control and release it. This will automatically return the vehicle to the previously set speed. The RES control will not work if the vehicle speed is not faster than 30 mph (48 km/h).



#### Increasing speed while using speed control

There are two ways to set a higher speed:

• Press and hold the SET + control until you get to the desired speed, then release the control. You can also use the SET + control to operate the Tap-Up function. Press and release this control to increase the vehicle set speed in small amounts by 1 mph (1.6 km/h).

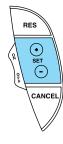


• Use the accelerator pedal to get to the desired speed. When the vehicle reaches that speed press and release the SET + control.

#### Reducing speed while using speed control

There are two ways to reduce a set speed:

• Press and hold the SET - control until you get to the desired speed, then release the control. You can also use the SET - control to operate the Tap-Down function. Press and release this control to decrease the vehicle set speed in small amounts by 1 mph (1.6 km/h).



 Depress the brake pedal or CANCEL until the desired vehicle speed is reached, press the SET + control.



### Turning off speed control

There are two ways to turn off the speed control:

- Depress the brake pedal or press CANCEL. This will not erase your vehicle's previously set speed.
- Press the speed control OFF control.

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

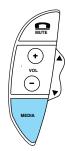


### STEERING WHEEL CONTROLS

These controls allow you to operate some audio control features.

#### **Audio control features**

Press MEDIA to select AM, FM1, FM2, CD (if equipped) or SAT (if equipped).



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# In AM, FM1, FM2 or SAT (if equipped) mode:

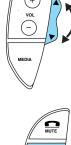
• Press  $\Delta$  or  $\nabla$  to select preset stations within the selected radio band.

### In CD (if equipped) mode:

• Press  $\Delta$  or  $\nabla$  to select the next selection on the CD.

### In any mode:

• Press VOL + or - to adjust volume.



MUTE

+
VOL

MEDIA

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



# **HOMELINK® WIRELESS CONTROL SYSTEM**

The HomeLink® Wireless Control System, located on the header trim, provides a convenient way to replace up to three hand-held transmitters with a single built-in device. This feature will learn the radio frequency codes of most transmitters to operate garage doors, entry gate operators, security systems, entry door locks, and home or office lighting.

When programming your HomeLink® Wireless Control System to a garage door or gate, be sure that people and objects are out of the way to prevent potential harm or damage.

Do not use the HomeLink® Wireless Control System with any garage door opener that lacks safety stop and reverse features as required by U.S. federal safety standards (this includes any garage door opener model manufactured before April 1, 1982). A garage door which cannot detect an object, signaling the door to stop and reverse, does not meet current U.S. federal safety standards. For more information, contact HomeLink® at: www.homelink.com or 1–800–355–3515.

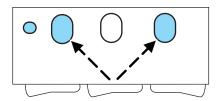
Retain the original transmitter for use in other vehicles as well as for future programming procedures (i.e. new HomeLink® equipped vehicle purchase). It is also suggested that upon the sale of the vehicle, the programmed Homelink® buttons be erased for security purposes, refer to *Programming* in this section.

#### **Programming**

#### Do not program HomeLink® with the vehicle parked in the garage.

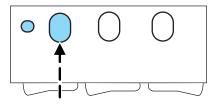
**Note:** Some vehicles may require the ignition switch to be turned to the second (or "ACC") position for programming and/or operation of the HomeLink<sup>®</sup>. It is also recommended that a new battery be placed in the hand-held transmitter of the device being programmed to HomeLink<sup>®</sup> for quicker training and accurate transmission of the radio-frequency signal.

1. Press and hold the two outside buttons releasing only when the indicator light begins to flash after 20 seconds. **Do not** repeat Step 1 to program additional hand-held transmitters to the remaining two HomeLink® buttons. This will erase previously programmed hand-held transmitter signals into HomeLink®.



2. Position the end of your hand-held transmitter 1-3 inches (2-8 cm) away from the HomeLink® button you wish to program (located on the header trim) while keeping the indicator light in view.

3. Simultaneously press and hold both the HomeLink® and hand-held transmitter button. **Do not release** the buttons until Step 4 has been completed.



Some entry gates and garage door openers may require you to replace Step 3 with procedures noted in the

"Gate Operator and Canadian Programming" section for Canadian residents.

- 4. The indicator light will flash slowly and then rapidly. Release both buttons when the indicator light flashes rapidly. (The rapid flashing light indicates acceptance of the hand-held transmitters' radio frequency signals.)
- 5. Press and hold the just-trained HomeLink® button and observe the indicator light. If the light is constant, programming is complete and your device should activate when the HomeLink® button is pressed and released. **Note:** To program the remaining two HomeLink® buttons, begin with Step 2 in the "Programming" section **do not** repeat Step 1.

**Note:** If the indicator light blinks rapidly for two seconds and then turns to a continuous light, proceed with Steps 6 through 8 to complete programming of a rolling code equipped device.

- 6. At the garage door opener receiver (motor-head unit) in the garage, locate the "learn" or "smart" button (usually near where the hanging antenna wire is attached to the unit).
- 7. Press and release the "learn" or "smart" button. (The name and color of the button may vary by manufacturer.)

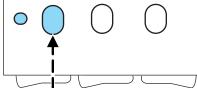
**Note:** There are 30 seconds in which to initiate Step 8.

8. Return to the vehicle and firmly press, hold for two seconds and release the HomeLink® button. Repeat the press/hold/release sequence again, and, depending on the brand of the garage door opener (or other rolling code equipped device), repeat this sequence a third time to complete the programming.

HomeLink® should now activate your rolling code equipped device. To program additional HomeLink® buttons begin with Step 2 in the "Programming" section. For questions or comments, please contact HomeLink at  $\mathbf{www.homelink.com}$  or  $\mathbf{1-800-355-3515}$ .

# **Gate Operator & Canadian Programming**

During programming, your hand-held transmitter may automatically stop transmitting — not allowing enough time for HomeLink® to accept the signal from the hand-held transmitter.



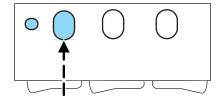
After completing Steps 1 and 2 outlined in the "Programming" section, replace Step 3 with the following:

**Note:** If programming a garage door opener or gate operator, it is advised to unplug the device during the "cycling" process to prevent overheating.

- Continue to press and hold the HomeLink® button (note Step 3 in the "Programming" section) while you press and release **every two seconds** ("cycle") your hand-held transmitter until the frequency signal has been accepted by the HomeLink®. The indicator light will flash slowly and then rapidly after HomeLink® accepts the radio frequency signal.
- Proceed with Step 4 in the "Programming" section.

#### Operating the HomeLink® Wireless Control System

To operate, simply press and release the appropriate HomeLink® button. Activation will now occur for the trained product (garage door, gate operator, security system, entry door lock, or home or office lighting etc.). For convenience, the hand-held transmitter of the device

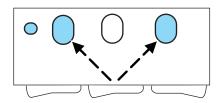


may also be used at any time. In the event that there are still programming difficulties, contact HomeLink® at **www.homelink.com** or **1–800–355–3515.** 

#### Erasing HomeLink® buttons

To erase the three programmed buttons (individual buttons cannot be erased):

• Press and hold the two outer HomeLink® buttons until the indicator light begins to flash-after 20 seconds. Release both buttons. Do not hold for longer that 30 seconds.



HomeLink® is now in the train (or learning) mode and can be programmed at any time beginning with Step 2 in the "Programming" section.

### Reprogramming a single HomeLink® button

To program a device to HomeLink® using a HomeLink® button previously trained, follow these steps:

- 1. Press and hold the desired HomeLink® button. **Do NOT** release the button.
- 2. The indicator light will begin to flash after 20 seconds. Without releasing the HomeLink® button, follow Step 2 in the "Programming" section.

For questions or comments, contact HomeLink® at **www.homelink.com** or 1-800-355-3515.

#### **CONVERTIBLE**

Articles stored in the convertible top stowage compartment may break the rear glass window when the top is lowered.

### Lowering the convertible top

The convertible top can be lowered with the side windows either up or

### Do not lower the top when the top material is wet.

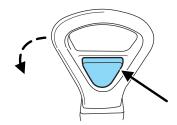
If you raise and lower the convertible top several times in a row, the motor will heat up, causing the thermal circuit breaker to open so that the top will stop operating. The convertible top will operate again after allowing the motor to cool several minutes.

To lower the convertible top:

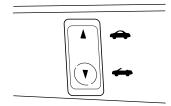
1. Bring vehicle to a complete stop. Put the gearshift in the P (Park) position.

The convertible top will operate with the key in the RUN position, RUN/ACC position or in the accessory delay mode. It is recommended that the vehicle's engine is running when lowering the top to prevent draining the battery.

- 2. Check the convertible top stowage compartment behind the seat to be sure it is empty and ready to receive the top.
- 3. Press the button on the convertible top handle and pull the handle down and forward to release the clamps from the windshield header.



4. Push the convertible top ▼ switch on the instrument panel and hold until the top is completely stored in the stowage compartment.

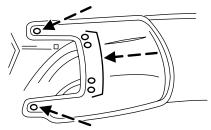


5. Push the handle back into the lock position.

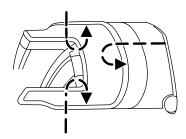
### Installation of the boot (if equipped)

Be sure the boot is tucked into the quarter panel and upper back panel and all snaps are fastened before driving.

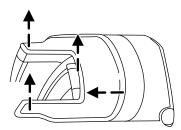
1. Fasten the snaps on the boot to the quarter trim panel on both sides of the vehicle and at the center.



2. Tuck the boot under the upper back panel at the rear and the quarter panel along the sides.



- 3. To remove unfasten the snaps.
- 4. Pull forward and lift off.



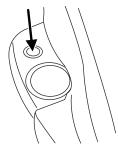
### Raising the convertible top

To raise the convertible top:

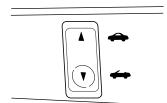
1. Bring the vehicle to a complete stop. Put the vehicle in the P (Park) position.

The convertible top will operate with the key in the RUN position, RUN/ACC position or in the accessory delay mode. It is recommended that the vehicle's engine is running when raising the top to prevent draining the battery.

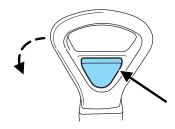
- 2. Remove the boot and store it in the luggage compartment.
- 3. Push the two screws down into the windscreen panel of your vehicle.



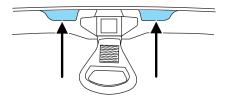
4. Push the convertible top ▲ switch, holding it until the top unfolds and moves forward toward the windshield header.



5. Press the button on the convertible top handle and pull the handle down to open both top clamps before the top meets the windshield header.



- 6. Resume pushing the convertible top switch until it has reached the fully closed position flush to the header.
- 7. The two pins under the forward edge of the top should seat themselves in the matching holes in the header.
- 8. To fasten both clamps securely, push the clamp handles into the header on the top until they are flush with the header. Pulling down on the header at the center grip while closing the latches may assist in fastening the clamps. Use the pull cups located on either side of the convertible top handle.



9. Push the convertible top handle back up so that it locks into position.



### Prolonged storage

It may be difficult to pull down and latch the convertible top after prolonged storage with the top in the down position over the winter or in colder temperatures. This difficulty will decline over time with warmer temperatures and the convertible top in the full up or latched position.

#### Convertible top and padded molding care

To avoid damage to the cloth top and moldings, use only an approved Ford cleaner, or equivalent. Do not use abrasive material or cleaners.

Wash with a high quality convertible top cleaner/protectant. If your car is equipped with a light colored convertible top, it will require extra care. Do not use abrasive material or cleaners.

Hot waxes applied by automatic car washes can affect the cleanability of cloth material.

Using high water pressure or wand type car washes against the convertible top and windows may cause water leaks and possible seal damage.

**Note:** Ensure that the convertible top is dry before installing the removable hard top (if equipped) or convertible top staining may occur. Also, high pressure car washes may cause water to enter the convertible top well, which may result in the convertible top staining if the top is not allowed to dry.

#### REMOVABLE TOP (IF EQUIPPED)

For more information see the CD Rom included with this guide.

# Installing the removable top



The front screw fittings must be checked to see that they are firmly seated after driving a distance of approximately 50 to 60 km (30 to 40 miles).



The removable top does not have the same crush resistance as an integrated steel roof in case of collision or rollover.



The removable top is not, under any circumstances, to be used to carry or support external loads.

Movement of the removable top requires at least two people. The removable top weighs approximately 38 kg (84 lb). Also, due to its shape, the weight is biased to the rear of the removable top.



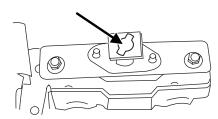
Your vehicle must be turned OFF and placed in PARK on a level surface prior to installing or removing the top.

Open the doors, lower the windows, and clean the area where the removable top mounts on the body. Before installing the removable top, unsnap and properly store the convertible top boot. Refer to Installation of the boot in the Convertible section. Also, thoroughly dry the convertible top and then lower.

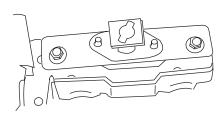
**Note:** Before installing the removable top, apply the protective tape to the rear deck of the vehicle, refer to the Quick Reference Guide for instructions.

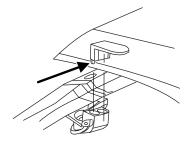
- 1. Remove the protective cover from the top. Using a mild detergent. clean the weather-strips on the top before installing it on the vehicle.
- 2. Ensure that the removable top levers are rotated rearward to the fully open position. Lock the wheels on the storage cart, and with the help of at least another person remove the top from the cart.

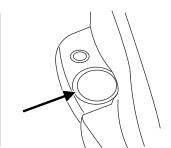
Once per year, apply a small amount of silicone lubricant, F5AZ-19553-AA, to the receivers as shown. The lubricant should be sprayed directly into the hole to avoid contaminating the trim parts.



3. Lower the rear of the top into position so that the pins are placed into the bracket receivers.

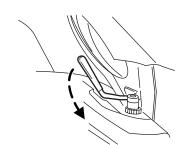




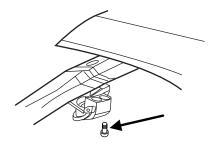


- 4. Position the front of the top so that the locating tabs on each side are placed in the mounting castings. Ensure that the weather-strip on the top is placed on the body mounted seal without any wrinkles or gaps. The joint should have a smooth and continuous transition to prevent water leaks.
- 5. Take the mounting key from the bag located in the trunk.

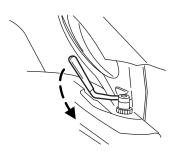
6. Partially turn, 1/2 turn forward, the levers of the top (located in the rear on the left and right-hand side of the vehicle).



7. Using the mounting key, loosely screw in the two screws at the front of the top by two or three turns. The two screws are already located in the windscreen panel of your vehicle.



8. Turn and lock the levers fully forward. The levers are locked when you feel the spring engage and the levers are pointing toward the front of the vehicle.



9. Using the mounting key, finish tightening the screws at the front of the removable top all the way so that they are secure.

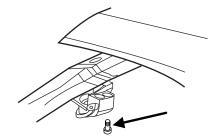


The front screw fittings must be checked to see that they are firmly seated after a distance of approximately 50 to 60 km (30 to 40 miles).

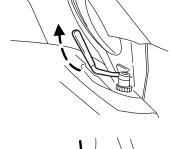
# Removing the top

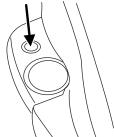
It is recommended that you prepare the storage rack before removing the top. See *Removable top storage rack* in this section.

- 1. Take the mounting key from the bag located in the trunk.
- 2. Using the mounting key, loosen the two screws at the front of the top. The two screws remain undetachable in the windscreen panel of your vehicle.



- 3. Undo the locking levers at the rear right and left sides of the vehicle. Rotate the levers rearward while applying a slight upward force to the top.
- 4. With the aid of a second person, lift the top off the vehicle and store it as described in *Removable top storage* in the chapter.
- 5. Push the two screws down into the windscreen panel of your vehicle.

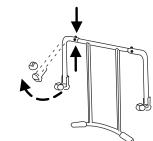


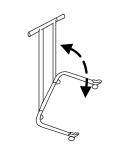


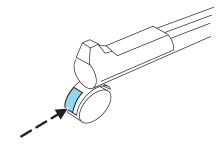
### Removable top storage rack

It is recommended that you prepare the storage rack prior to removing the top from the vehicle.

- 1. Remove the storage rack from the package and place the bumper end of the uprights on the floor with the wheels facing you.
- 2. Locate the two chrome locking buttons on each of the two rack legs.
- 3. Firmly squeeze the two chrome buttons (top and bottom) on one leg and rotate the leg toward you until the leg snaps into place.
- 4. Squeeze the second set of chrome buttons (top and bottom) for the opposite leg until the leg snaps into place.
- 5. Turn the rack over on its wheels and place the removable top storage rack on a flat level surface. Make sure the center "T" section is fully locked by attempting to move the section downward without depressing the chrome locking buttons.
- 6. Lock the two front wheels located on the ends of each of the two rack legs.
- 7. To lock the wheels, push down on the bottom part of the plastic tab located on the tip of each wheel.



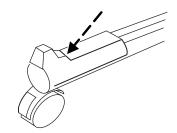




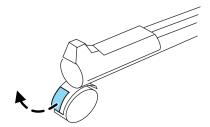
8. Place the removable top on the storage rack.



9. Make sure the rear edge of the removable top rests on the rubber bumpers of the rack legs. This prevents damage to the painted edge and the weather-strips.



To unlock the wheels, pull up on the lower portion of the plastic tab located on the tip of each wheel.



Place the mounting key in a safe place to use again.

Keep your removable top clean by placing the provided cover over it.

If you plan to drive with the convertible top down, ensure all the snaps on the convertible top boot are fastened and that the rear of the cover is firmly tucked before driving. Refer to *Installation of the boot* in the *Convertible* section.

#### **CELL PHONE USE**

The use of Mobile Communications Equipment has become increasingly important in the conduct of business and personal affairs. However, drivers must not compromise their own or others' safety when using such equipment. Mobile Communications can enhance personal safety and security when appropriately used, particularly in emergency situations. Safety must be paramount when using mobile communications equipment to avoid negating these benefits.

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

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

#### **CENTER CONSOLE**

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

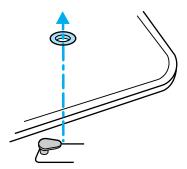
- Utility compartment
- Cupholders
- Ash tray



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

### POSITIVE RETENTION FLOOR MAT

Position the driver floor mat so that the eyelet is over the pointed end of the retention post and rotate forward to lock in. Make sure that the mat does not interfere with the operation of the accelerator or the brake pedal. To remove the floor mat, reverse the installation procedure.



#### **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 the  $SecuriLock^{\textcircled{m}}$  passive anti-theft system section in this chapter for more information.

#### **POWER DOOR LOCKS**

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

When the vehicle's security system is armed, the power door locks and remote trunk release control are disabled; these features will not work until the security system is disarmed.



#### **Smart locks**

With the key in any ignition position:

• The driver's door will automatically unlock if it is locked by the driver's power unlock control while the driver's door is open.

The vehicle may still be locked with the key in the ignition, and performing one of the following actions:

- Pressing the power unlock control on the driver's door with the doors closed.
- Pressing the power unlock control on the passenger door with the doors closed.
- Operating the remote entry transmitter.
- Operating the driver's door with a key.

#### Door key unlocking/locking

# Unlocking the doors

Turn the key in the door cylinder to unlock the driver's door.

The illuminated entry feature will turn on all the interior lamps for 25 seconds or until the ignition is turned to the 4 (RUN) position.

The inside lights will not turn off if:

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

The battery saver feature will turn off the interior lamps 30 minutes after the ignition is turned to the 2 (OFF) position.

#### Locking the doors

Turn the key in the door cylinder to lock the driver's door. **Note:** Locking the driver's door using a key does not arm the perimeter alarm.

#### INTERIOR LUGGAGE COMPARTMENT RELEASE

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

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

To open the luggage compartment door (lid) from within the luggage compartment, pull the illuminated "T" shaped handle and push up on the trunk lid. The handle is composed of a material that will glow for hours in darkness following brief exposure to ambient light.

The "T" shaped handle will be located either on the luggage compartment door (lid) or inside the luggage compartment near the tail lamps.



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



On hot days, the temperature in the trunk or vehicle interior 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**

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

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

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

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

The remote entry system allows you to:

- unlock the vehicle doors without a key.
- lock all the vehicle doors without a key.
- open the trunk without a key.
- activate the personal alarm.
- arm and disarm the perimeter anti-theft system.
- operate the illuminated entry feature.



If there are problems with the remote entry system, make sure to take **ALL remote entry transmitters** with you to the dealership in order to aid in troubleshooting the problem.

# Locking the doors

- 1. Press and arelease to lock all the doors and activate the anti-theft system. **Note:** the turn signal lamps will flash once to confirm the doors, trunk and hood are closed. If any closure is not closed, the turn signals will **not** flash.
- 2. Press and release again within three seconds to confirm that all the doors, trunk and hood are closed. **Note:** The doors will lock again, and the horn will chirp once.

If any of the doors, the trunk or the hood are not closed, the horn will make two quick chirps and the lights will **not** flash until the last closure is closed

# Unlocking the doors 🗇

- 1. Press **1** and release to unlock the driver's door and deactivate the perimeter alarm (if activated). **Note:** The interior lamps will illuminate.
- 2. Press  $\P$  and release again within three seconds to unlock all the doors.

The remote entry system comes with an illuminated entry feature. This feature turns on the interior lamps for 25 seconds or until the ignition is turned to the 4 (RUN) position.

The inside lights will not turn off if:

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

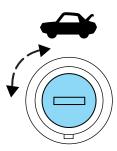
The battery saver feature will turn off the interior lamps 30 minutes after the ignition is turned to the 2 (OFF) position.

# Opening the trunk

Press once to open the trunk.

• Ensure that the trunk is closed and latched before driving your vehicle. Failure to properly latch the trunk may cause objects to fall out or block the driver's rear view.

In the event of battery failure, you can open the trunk by using your master key on the key cylinder located behind the driver's seat.



### Sounding a panic alarm

Press (1) to activate the alarm. The horn will sound for a maximum of 30 seconds and the turn signal lamps will flash for a maximum of 5 minutes. Press or again, or turn the ignition out of the 2 (OFF) position to deactivate the panic alarm, or wait for the alarm to timeout in

**Note:** The panic alarm will only operate when the ignition is in the 1 (LOCK), 2 (OFF) or 3 (ACCESSORY) position.

#### Replacing the battery

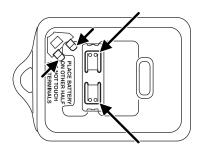
The remote entry transmitter uses one coin type three-volt lithium battery CR2032 or equivalent.

To replace the battery:

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



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



- 3. Remove the old battery. **Note:** Please refer to local regulations when disposing of transmitter batteries.
- 4. Insert the new battery. Refer to the diagram inside the remote entry transmitter for the correct orientation of the battery. Press the battery down to ensure that the battery is fully seated in the battery housing cavity.
- 5. Snap the two halves back together.

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

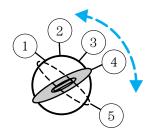
#### Replacing lost remote entry transmitters

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

### How to reprogram your remote entry transmitters

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

To reprogram the remote entry transmitters:



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

### Illuminated entry

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

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

- the ignition switch is turned to the 4 (RUN) position, or
- the remote transmitter lock control is pressed, or
- after 25 seconds of illumination.

The inside lights will not turn off if:

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

The battery saver will shut off the interior lamps 30 minutes after the ignition has been turned to the 2 (OFF) position.

#### **Autolock**

The autolock feature will lock the vehicle's doors when:

- all the doors are closed,
- the ignition is in the 4 (RUN) position, and
- you shift into forward or reverse, putting the vehicle in motion.

#### Relock

The autolock feature repeats when:

- either door is opened then closed while the ignition is in the 4 (RUN) position,
- you shift into forward or reverse, and
- you put the vehicle in motion by releasing the brake pedal.

#### Deactivating/activating autolock

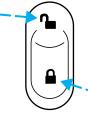
Your vehicle comes with the autolock feature activated. There are two methods to enable/disable this feature: One is through your authorized dealer, and the second is using a power door unlock/lock sequence.

Before following the activation or deactivation procedures, make sure that the anti-theft system is not activated, ignition is off, and the vehicle doors are closed.

#### Power door unlock/lock procedure

You must complete Steps 1-5 within 30 seconds or the procedure will have to be repeated.

- 1. Turn the ignition to the 4 (RUN) position.
- 2. Press the driver door unlock control three times.
- 3. Turn the ignition key from 4 (RUN) to the 2 (OFF) position.
- 4. Press the driver door unlock control three times.



- 5. Turn the ignition back to the 4 (RUN) position. The horn will chirp.
- 6. Press the unlock control, then press the lock control. The horn will chirp once if autolock was deactivated or twice (one short and one long chirp) if autolock was activated.
- 7. Turn the ignition to the 1 (LOCK) or 2 (OFF) position.

### SECURILOCK® PASSIVE ANTI-THEFT SYSTEM

SecuriLock® passive anti-theft system is an engine immobilization system. This system is designed to help 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

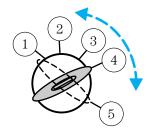
The theft indicator is the flashing red indicator located on top of the instrument panel.

- When the ignition is in the 2 (OFF) position, the indicator will flash once every 2 seconds if the vehicle is locked and the perimeter alarm is armed.
- When the ignition is in the 4 (RUN) 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 4 (RUN) position. If this occurs, the vehicle should be taken to an authorized dealer for service.

#### **Automatic arming**

The vehicle is armed immediately after switching the ignition to the 1 (LOCK) or 2 (OFF) position.



#### **Automatic disarming**

Switching the ignition to the 4 (RUN) position with a **coded key** disarms the vehicle.

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USA (fus)

- 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 dealer.

#### **Key information**

Your vehicle is supplied with **two coded keys (or three keys, if the valet feature is available).** Only a **coded key** will start your vehicle. Spare coded keys may be purchased from an authorized Ford dealer. An authorized Ford dealer can also program your **coded key,** or you can do it yourself. Refer to *Programming spare keys* in this chapter.

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 prevent these objects from touching the **coded key** while starting the engine. These objects cannot damage the **coded key**, but may cause a momentary "no start" condition if they are too close to the key when starting the engine. If a problem occurs, turn the ignition to the 2 (OFF) position 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**.

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 an authorized Ford dealer or a locksmith.
   The key codes will need to be erased from your vehicle and new 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 **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.

### **Locks and Security**

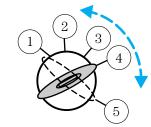
#### Programming spare keys

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 take your vehicle to an authorized Ford dealer 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 from 1 (LOCK) to 4 (RUN) (maintain ignition in the 4 (RUN) position for at least three seconds, but no more than ten seconds).



2. Turn the ignition to the 1 (LOCK) position and remove the first **coded key** from the ignition.

- 3. Within ten seconds of turning the ignition to the 1 (LOCK) position, insert the second previously programmed coded key into the ignition and turn the ignition from the 1 (LOCK) position to the 4 (RUN) position (maintain ignition in the 4 (RUN) position for at least three seconds, but no more than ten seconds).
- 4. Turn the ignition to the 1 (LOCK) position and remove the second **coded key** from the ignition.
- 5. Within twenty seconds of turning the ignition to the 1 (LOCK) position, insert the new unprogrammed key (new key/valet key) into the ignition and turn the ignition from 1 (LOCK) to 4 (RUN) (maintain ignition in the 4 (RUN) position for at least three seconds). This step will program your new key to a  $\mathbf{coded}$   $\mathbf{key}$ .
- 6. To program additional new unprogrammed key(s), wait at least twenty seconds and then repeat this procedure from Step 1.

If successful, the new **coded key(s)** will start the vehicle's engine and the theft indicator will flash on and off. You may repeat Steps 1 through 5. If failure repeats, take your vehicle to your authorized dealer in order to have new spare key(s) programmed.

### **Locks and Security**

#### PERIMETER ALARM SYSTEM

The perimeter anti-theft system will warn you in the event of an unauthorized entry to your vehicle.

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

#### Arming the system

When armed, this system will respond if unauthorized entry is attempted. When unauthorized entry occurs, the system will flash the turn signal lamps and will sound the horn.

The system is ready to arm whenever the key is removed from the ignition. Either of the following actions will prearm the alarm system:

- Press the **a** control on the remote entry transmitter.
- Press the driver or passenger door lock control while the door is open.

### Disarming the system

You can disarm the system by any of the following actions:

- $\bullet$  Unlock the doors by pressing the  ${\bf \hat{l}}$  control on your remote entry transmitter.
- Unlock the doors with a key. Turn the key full travel (toward the front of the vehicle) to ensure the alarm disarms.

### Triggering the anti-theft system

The armed system will be triggered if any door, the trunk or the hood is opened without using the key or the remote entry transmitter.

#### **SEATING**

#### **Notes:**



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



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

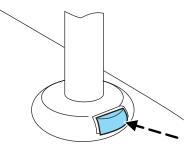
### Adjustable head restraints

Head restraints help to limit head motion in the event of a rear collision. Adjust your head restraint so that it is located directly or as close as possible behind your head.

The head restraints can be moved up and down.



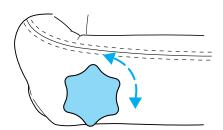
Push control to lower head restraint.



#### Using the manual lumbar support

The lumbar control is located on the front of the driver's seat cushion.

Turn to adjust lumbar support.



### Using the manual recline function



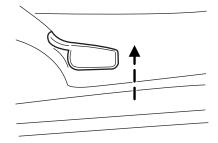
Never adjust the driver's seat or seatback when the vehicle is moving.



To maximize restraint system effectiveness, the driver and passenger seat must be in the upright position and the lap belt must be snug and low across the hips while the vehicle is moving.

To adjust the front seatback using the manual recliner:

- Lift and hold the handle located on the side of the seat.
- Lean against the seatback to adjust it to your desired position. You can recline the seat back or bring it forward.
- Release the handle when the desired position has been reached.



#### Adjusting the driver's power seat



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



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



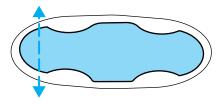
To maximize restraint system effectiveness, the driver and passenger seat must be in the upright position and the lap belt must be snug and low across the hips while the vehicle is moving.



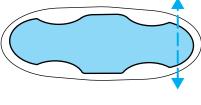
Reclining the seatback can cause an occupant to slide under the seat's safety belt, resulting in severe personal injuries in the event of a collision.

The seat position control is located on the outboard side of the seat cushion.

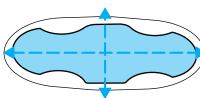
Press front to raise or lower the front portion of the seat cushion.



Press rear to raise or lower the rear portion of the seat cushion.



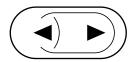
Press the control to move the seat forward, backward, up or down.



### Adjusting the passenger's power seat

The control is located on the outboard side of the seat cushion.

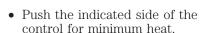
Press the control to move the seat forward or backward.

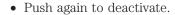


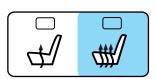
#### Heated seats (if equipped)

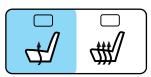
To operate the heated seats:

- Push the indicated side of the control for maximum heat.
- Push again to deactivate.









The heated seat module resets at every ignition run cycle. While the ignition is in the ON position, activating the high or low heated seat switch enables heating mode. When activated, they will turn off automatically when the ignition is turned to the OFF position.

The indicator light will illuminate when the heated seats have been activated.

#### **SAFETY RESTRAINTS**

#### Safety restraints precautions



To maximize restraint system effectiveness, the driver and passenger seat must be in the upright position and the lap belt must be snug and low across the hips while the vehicle is moving.



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

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

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

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

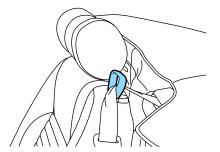


In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a safety belt.

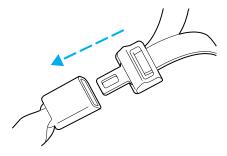
Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing the safety belt around your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

### Combination lap and shoulder belts

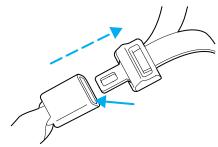
Before fastening the safety belt, make sure the shoulder belt passes through the belt holder on the top of the seatback.



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.



### **Energy Management Feature**

The safety belts in the vehicle are combination lap and shoulder belts.

- 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.

The safety restraints in the vehicle are combination lap and shoulder belts. The safety belts have two types of locking modes described below.

#### 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 5 mph (8 km/h) or more, the combination safety belts will lock to help reduce forward movement of the driver and passengers.

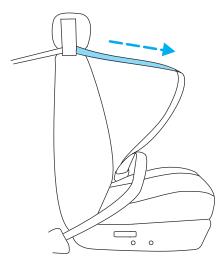
### **Automatic locking mode**

### How to use the automatic locking mode

• Buckle the combination lap and shoulder belt.



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



• Allow the belt to retract. As the belt retracts, you will hear a clicking sound. This indicates the safety belt is now in the automatic locking mode

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

• **Anytime** a child safety seat is installed in the vehicle. Refer to *Safety Restraints for Children* or *Safety Seats for Children* later in this chapter.

#### How to disengage the automatic locking mode

Unbuckle the combination lap and shoulder belt and allow it to retract completely to disengage the automatic locking mode and return to the vehicle sensitive (emergency) locking mode.

After any vehicle collision, the combination lap and shoulder belt system at all passenger seating positions must be checked by a qualified technician to verify that the "automatic locking retractor" feature for child seats is still functioning properly, in addition to other checks for proper seat belt system function.

BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the safety belt assembly "automatic locking retractor" feature or any other safety belt function is not operating properly. In addition, all safety belts should be checked for proper function. Failure to replace the belt and retractor assembly could increase the risk of injury in collisions.

#### Safety belt pretensioner

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

The safety belt pretensioner is a device which removes excess webbing from the safety belt system. The safety belt pretensioner uses the same crash sensor system as the front air bag supplemental restraint system (SRS). When the safety belt pretensioner deploys, webbing from the lap and shoulder belt is tightened. The driver and front passenger seat belt system (including retractors and buckles) must be replaced if the vehicle is involved in a collision that results in deployment of front air bags and 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.

### 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.

### **Conditions of operation**

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

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

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"	<b>36700 crashes occur every day.</b> The
	more we drive, the more we are
	exposed to "rare" events, even for
	good drivers. 1 in 4 of us will be
	seriously injured in a crash during
	our lifetime.
"I'm not going far"	3 of 4 fatal crashes occur within 25
	miles (40 km) of home.
"Belts are uncomfortable"	We design our safety belts to enhance
	comfort. If you are uncomfortable -
	try different positions for the safety
	belt upper anchorage and seatback
	which should be as upright as
	possible; this can improve comfort.

Reasons given	Consider
"I was in a hurry"	Prime time for an accident.
	BeltMinder <sup>®</sup> reminds us to take a few
	seconds to buckle up.
"Safety belts don't work"	Safety belts, when used properly,
	reduce risk of death to front seat
	occupants by 45% in cars, and by
	60% in light trucks.
"Traffic is light"	Nearly 1 of 2 deaths occur in
	single-vehicle crashes, many when
	no other vehicles are around.
"Belts wrinkle my clothes"	Possibly, but a serious crash can do
	much more than wrinkle your clothes,
	particularly if you are unbelted.
"The people I'm with don't	Set the example, teen deaths occur 4
wear belts"	times more often in vehicles with
	TWO or MORE people. Children and
	younger brothers/sisters imitate
	behavior they see.
"I have an airbag"	Airbags 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. <b>People</b> 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 BeltMinder chime. Sitting on the safety belt will increase the risk of injury in an accident. To disable (one-time) or deactivate the BeltMinder feature please follow the directions stated below.

#### One time disable

Any time the safety belt is buckled and then unbuckled during an ignition ON cycle, the BeltMinder<sup>®</sup> 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).
- The ignition switch is in the OFF position.
- · All vehicle doors are closed.
- The driver's safety belt is unbuckled.
- The parklamps are in OFF position.



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

- 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, turn off the parklamps.
- 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<sup>®</sup> if it is currently enabled, or enable BeltMinder<sup>®</sup> if it is currently disabled.

- 7. Confirmation of disabling BeltMinder<sup>®</sup> is provided by the safety belt warning light flashing four times per second for three seconds.
- 8. Confirmation of enabling BeltMinder<sup>®</sup> 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 extension assembly

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

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



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

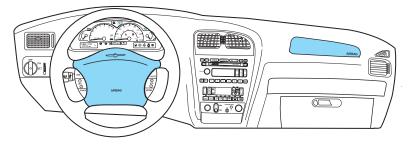
#### Safety belt maintenance

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 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 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.

#### AIRBAG SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



#### Important supplemental restraint system (SRS) precautions

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

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



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

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



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

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

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

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

Do not attempt to service, repair, or modify the air bag supplemental restraint system (SRS) or its fuses. See your Ford or Lincoln Mercury dealer.

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

#### Children and air bags

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

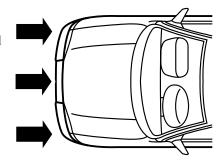
Children must always be properly restrained. Failure to follow these instructions may increase the risk of injury in a collision.

Air bags can kill or injure a child in a child seat. **NEVER** place a rear-facing child seat in front of an active air bag. If you must use a forward-facing child seat in the front seat, move the seat all the way back and turn the passenger air bag off. Refer to *Passenger air bag ON/OFF switch* in this chapter of the owner's guide.

## How does the safety belt pretensioner and air bag supplemental restraint system work?

The safety belt pretensioner and air bag SRS are designed to activate when the vehicle sustains longitudinal deceleration sufficient to cause the sensors to close an electrical circuit that initiates pretensioner activation and air bag inflation.

The fact that the pretensioners and air bags did not activate 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. Front air bags and pretensioners are designed to activate in frontal and near-frontal collisions, not rollover, side-impact, or rear-impacts unless the collision causes sufficient longitudinal deceleration.

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, contact with

a deploying air bag may also cause 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.

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)
- side air bags. Refer to Side air bag system later in this chapter
- safety belt pretensioners
- · one or more impact and safing sensors
- a readiness light and tone
- and the electrical wiring which connects the components

The diagnostic module monitors its own internal circuits and the supplemental air bag electrical system wiring (including the impact sensors), the system wiring, the air bag system readiness light, the air bag back up power, the air bag ignitors and safety belt pretensioners.

### Determining if the system is operational 🔏

The SRS uses a readiness light in the instrument cluster or a tone to indicate the condition of the system. Refer to the *Air bag readiness* section in the *Instrument cluster* chapter. Routine maintenance of the air bag is not required.

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

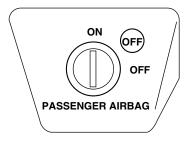
- The readiness light will either flash or stay lit
- The readiness light will not illuminate immediately after ignition is turned to the RUN position
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and/or light are repaired.

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.



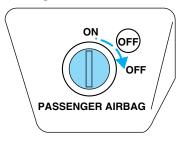
#### Passenger front and side air bag ON/OFF switch

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 front and side air bags 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, the passenger airbag OFF light illuminates briefly, momentarily shuts off and then turns back on. This indicates that the passenger front and side air bags are deactivated.



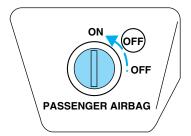
If the OFF light fails to illuminate when the front and side passenger air bag switch is in the OFF position and the ignition switch is in ON, have the front and side passenger air bag switch serviced at your Ford or Lincoln/Mercury dealer.

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

#### Turning the front and side passenger air bags back on

The front and side passenger air bags remain OFF until you turn them back ON.

- 1. Insert the ignition key and turn the switch to ON.
- 2. The OFF light will briefly illuminate and then shut off when the ignition is turned to ON. This indicates that the passenger front and side air bags are operational.



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

The front passenger air bag and 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.

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

This vehicle has special energy management safety belts for the driver and right front passenger. These particular belts are specifically designed to work with air bags to help reduce the risk of injury in a collision. The energy management safety belt is designed to give or release additional belt webbing in some accidents to reduce concentration of force on an occupant's chest and reduce the risk of certain bone fractures and injuries to underlying organs. In a crash, if the air bag is turned OFF, this energy management safety belt might permit the person wearing the belt to move forward enough to incur a serious or fatal injury. The more severe the crash, and the heavier the occupant, the greater the risk is. 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:
- my vehicle has no rear seat, or
- the rear seat in my 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:
- my vehicle has no rear seat, or
- although children age 12 and under ride in the rear seat whenever possible, children age 12 and under have no option but to sometimes ride in the front seat because rear seat space is insufficient, or
- the child has a medical condition that, according to the child's physician, makes it necessary for the child to ride in the front seat so that the driver can monitor the child's condition.
- 3. **Medical condition:** A passenger has a medical condition that, according to his or her physician:
- poses a special risk for the passenger if the air bag deploys and
- makes the potential harm from the passenger air bag deployment greater than the potential harm from turning OFF the air bag and experiencing a crash without the protection offered by the air bag

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

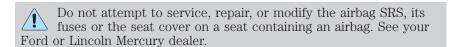
### Side air bag system 🚜

Do not place objects or mount equipment on or near the air bag cover on the side of the seatbacks of the front seats or in front seat areas that may come into contact with a deploying airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a collision.

Do not use accessory seat covers. The use of accessory seat covers may prevent the deployment of the side airbags and increase the risk of injury in an accident.



Do not lean your head on the door. The side airbag could injure you as it deploys from the side of the seatback.





All occupants of the vehicle should always wear their safety belts even when an air bag SRS is provided.

### How does the side air bag system work?

The side air bag system consists of the following:

- An inflatable nylon bag (air bag) with a gas generator concealed behind the outboard bolster of the driver and front passenger seatbacks.
- A special seat cover designed to allow air bag deployment.
- The same warning light, electronic control and diagnostic unit as used for the front air bags.
- Two crash sensors located under the outboard side of the front seats, attached near the floor.

Side air bags, in combination with seat belts, can help reduce the risk of severe injuries in the event of a significant side impact collision.

The side air bags are fitted on the outboard side of the seatbacks of the front seats. In certain lateral collisions, the air bag on the side affected by the collision will be inflated, even if the respective seat is not occupied. The air bag was designed to inflate between the door panel and occupant to further enhance the protection provided occupants in side impact collisions.

The air bag SRS is designed to activate when the vehicle sustains lateral deceleration sufficient to cause the sensors to close an electrical circuit that initiates air bag inflation.

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. Side air bags are designed to inflate in side-impact collisions, not roll-over, rear-impact, frontal or near-frontal collisions, unless the collision causes sufficient lateral deceleration.



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

If the side air bag has deployed, the air bag will not function again. The side air bag system (including the seat) must be inspected and serviced by a qualified technician in accordance with the vehicle service manual. If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.



#### Determining if the system is operational

The SRS uses a readiness light in the instrument cluster or a tone to indicate the condition of the system. Refer to the *Air bag readiness* section in the *Instrument cluster* chapter. Routine maintenance of the air bag is not required.

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

- The readiness light (same light as used for front air bag system) will either flash or stay lit.
- The readiness light will not illuminate immediately after ignition is turned to the RUN position.
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

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

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

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

#### 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 (generally children who are four years old or younger and who weigh 40 lb. [18 kg] or less) ride in your vehicle, you must put them in safety seats made especially for children. Many states require that children use approved booster seats until they are eight years old. Check your local and state or provincial laws for specific requirements regarding the safety of children in your vehicle.



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

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

#### 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



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

#### Child booster seats

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

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

Booster seats position a child so that safety belts fit better. They lift the child up so that the lap belt rests low across the hips and the knees bend comfortably. Booster seats also make the shoulder belt fit better and more comfortably for growing children.

#### When children should use booster seats

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

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

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



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

#### Types of booster seats

There are two types of belt-positioning booster seats:

• Those that are backless.

If your backless booster seat has a removable shield, remove the shield and use the lap/shoulder belt.



• Those with a high back.

A backless booster would be a better choice because the high back booster will place the child closer to the instrument panel and airbag.



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

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

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

#### The importance of shoulder belts

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



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.

#### 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* section in this chapter.
- Use the correct safety belt buckle for that seating position.
- 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*.
- LATCH lower anchors are recommended for use by children up to 48 pounds (22 kg) in a child restraint. Top tether anchors can be used for children up to 60 pounds (27 kg) in a child restraint, and to provide upper torso restraint for children up to 80 pounds (36 kg) using an upper torso harness and a belt-positioning booster.

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

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.

Rear-facing child seats or infant carriers should never be placed in the front seat unless the airbag On/Off switch is in the Off position.

# Installing child safety seats with combination lap and shoulder belts

Air bags can kill or injure a child in a child seat. **NEVER** place a rear-facing child seat in front of an active air bag. If you must use a forward-facing child seat in the front seat, move the seat all the way back and turn the passenger air bags OFF.

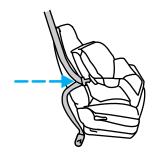
1. Position the child safety seat in a seat with a combination lap and shoulder belt.



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



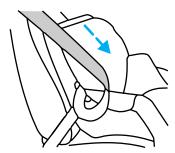
3. While holding the shoulder and lap belt portions together, route the tongue through the child seat according to the child seat manufacturer's instructions. Be sure the belt webbing is not twisted.



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 a snap and feel the latch engage. Make sure the tongue is latched securely by pulling on it.



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



- 6. Allow the belt to retract. The belt will click as it retracts to indicate it is in the automatic locking mode.
- 7. Pull the lap belt portion across the child seat toward the buckle and pull up on the shoulder belt while pushing down with your 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 move the seat forward and back to make sure the seat is securely held in place. To check this, grab the seat at the belt path and attempt to move it side to side and forward. There should be no more than one inch of movement for proper installation.



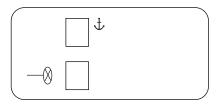
10. Try to pull the belt out of the retractor to make sure the retractor is in the automatic locking mode (you should not be able to pull more belt out). If the retractor is not locked, unbuckle the belt and repeat Steps two through nine.

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

### Attaching child safety seats with tether straps 🎩

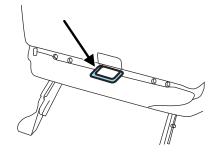
Most new forward-facing child safety seats include a tether strap which goes over the back of the seat and hooks to an anchoring point. Tether straps are available as an accessory for many older safety seats. Contact the manufacturer of your child seat for information about ordering a tether strap.

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



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

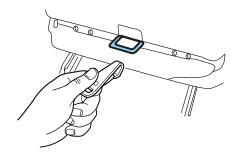
- 1. Position the child safety seat on the passenger seat cushion.
- 2. Locate the tether anchor at the bottom back of the passenger seat.



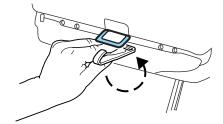
3. Route the child safety seat tether strap under the head restraint and over the back of the seat.



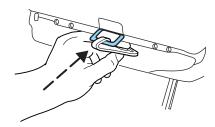
4. Grasp the tether strap and position it to the seat frame.



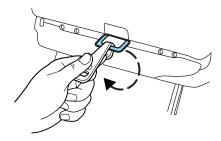
5. Rotate the tether strap.



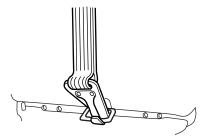
6. Clip the tether strap to the anchor on the seat frame.



7. Rotate the tether strap clip.



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



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

Some child safety seats are labeled as LATCH or LATCH-compatible child seats. These seats include two rigid or webbing mounted attachments that connect to two anchors at specific seating positions in your vehicle. This type of child seat eliminates the need to use safety belts to attach the child seat. For forward-facing child seats, the tether strap must also be attached to the proper tether anchor point. For information on using tether straps with the child safety seats, refer to Passenger front and side air bag ON/OFF switch and Attaching child safety seats with tether straps in this chapter.

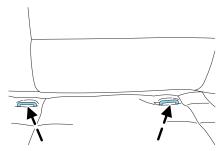
# **Seating and Safety Restraints**

A LATCH system for child seat installation has been provided in your vehicle at the following location:



The lower anchors for child seat installation are located at the rear section of the passenger seat between the cushion and seat back.

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





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

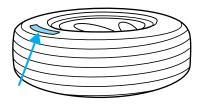
If you install a child seat with rigid LATCH attachments, do not tighten the tether strap enough to lift the child seat off the seat when the child is seated in it. Keep the tether strap just snug without raising the front of the child seat. Keeping the child seat just touching the front of the vehicle seat gives the best protection in a severe crash. Each time you use the child seat, check that the seat is properly attached to the lower anchors for child seat installation and tether anchors. Try to tilt the 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 collision greatly increases.

### 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 climate.

### **Traction AA A B C**

The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning or peak traction characteristics.

### Temperature A B C

The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

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

#### **TIRES**

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

### Glossary of tire terminology

- **Tire label:** A label showing the OE (Original Equipment) tire sizes, recommended inflation pressure and the maximum weight the vehicle can carry.
- **Tire Identification Number (TIN):** A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture.
- **Inflation pressure:** A measure of the amount of air in a tire.
- **Standard load:** A class of P-metric or Metric tires designed to carry a maximum load at 35 psi [37 psi (2.5 bar) for Metric tires]. Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.
- Extra load: A class of P-metric or Metric tires designed to carry a heavier maximum load at 41 psi [43 psi (2.9 bar) for Metric tires].

Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.

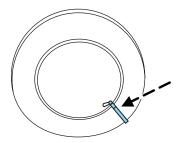
- **kPa:** Kilopascal, a metric unit of air pressure.
- **PSI:** Pounds per square inch, a standard unit of air pressure.
- **Cold inflation pressure:** The tire pressure when the vehicle has been stationary and out of direct sunlight for an hour or more and prior to the vehicle being driven for 1 mile (1.6 km).
- **Recommended inflation pressure:** The cold inflation pressure found on the tire label located on the B-Pillar or the edge of the driver's door.
- **B-pillar:** The structural member at the side of the vehicle behind the front door.
- **Bead area of the tire:** Area of the tire next to the rim.
- **Sidewall of the tire:** Area between the bead area and the tread.
- **Tread area of the tire:** Area of the perimeter of the tire that contacts the road when mounted on the vehicle.
- **Rim:** The metal support (wheel) for a tire or a tire and tube assembly upon which the tire beads are seated.

#### **INSPECTING AND INFLATING YOUR TIRES**

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

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

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



#### Inspecting your tires

Periodically inspect the tire treads for uneven or excessive wear and remove stones, nails, glass or other objects that may be wedged in the

tread grooves. Check for holes or cuts that may permit air leakage from the tire and make necessary repairs.

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

#### Inflating your tires

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

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

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

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

**Maximum Permissible Inflation Pressure** is the tire manufactures' maximum permissible pressure and/or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the manufacturer's recommended cold inflation pressure which can be found on either the tire label or certification label which is located on the B-Pillar or the edge of the driver's door. The cold inflation

pressure should never be set lower than the recommended pressure on the tire label or certification label.

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

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

To check the pressure in your tire(s):

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

**Note:** If you have to drive a distance to get air for your tire(s), check and record the tire pressure first and add the appropriate air pressure when you get to the pump. It is normal for tires to heat up and the air pressure inside to go up as you drive. Never "bleed" or reduce air pressure when tires are hot.

- 2. Remove the cap from the valve on one tire, then firmly press the tire gauge onto the valve and measure the pressure with the tire gauge.
- 3. Add enough air to reach the recommended air pressure

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

- 4. Replace the valve cap.
- 5. Repeat this procedure for each tire, including the spare.

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

- 6. Visually inspect the tires to make sure there are no nails or other objects embedded that could poke a hole in the tire and cause an air leak
- 7. Check the sidewalls to make sure there are no gouges, cuts or bulges.

#### TIRE REPLACEMENT REQUIREMENTS

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

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

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

**Important:** Remember to replace the spare tire when you replace the road tires on your vehicle. Even if it has never been used, the spare tire should be replaced because tires degrade over time.

**Important:** Remember to replace the wheel air valves when the road tires are replaced on your vehicle.

#### **CHANGING THE TIRES**

If you get a flat tire while driving:

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



The use of tire sealants is not recommended and may damage your tires.

#### T-Type/Mini-Spare Tire Information

Your vehicle may be equipped with a T-type/mini-spare tire or a full-size spare tire. The T-type/mini-spare tire will have the words "Temporary Use Only" molded into the tire sidewall. This spare tire is considered "temporary". Replace the T-type/mini-spare with a tire of the same size, speed rating and load carrying capacity as the other road tires as soon as possible.

When driving with the T-type/mini-spare tire **do not:** 

- Exceed 50 mph (80 km/h)
- Load the vehicle beyond maximum vehicle load rating listed on the Safety Compliance Label
- Tow a trailer
- Use snow chains on the end of the vehicle with the T-type/mini spare tire
- Use more than one T-type/mini spare tire at a time
- · Use commercial car washing equipment
- Try to repair the T-type/mini spare tire

Use of a T-type/mini spare tire at any one wheel location can lead to impairment of the following:

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

### Dissimilar spare tire/wheel information (if equipped)



Failure to follow these guidelines could result in an increased risk of loss of vehicle control, injury or death.

Your vehicle may be equipped with a dissimilar spare tire/wheel. A dissimilar spare tire/wheel is defined as a spare tire and/or wheel that is different in brand, size or appearance from the road tires and wheels. If you have a dissimilar spare tire/wheel, then it is intended for temporary use only. This means that if you need to use it, you should replace it as soon as possible with a road tire/wheel that is the same size and type as the road tires and wheels that were originally provided by Ford. If the dissimilar spare tire or wheel is damaged, it should be replaced rather than repaired.

When driving with the dissimilar spare tire/wheel, **do not:** 

- Exceed 70 mph (113 km/h)
- Use more than one dissimilar spare tire/wheel at a time
- Use commercial car washing equipment

• Use snow chains on the end of the vehicle with the dissimilar spare tire/wheel

The usage of a dissimilar spare tire/wheel can lead to impairment of the following:

- Handling, stability and braking performance
- Comfort and noise
- Ground clearance and parking at curbs
- Winter weather driving capability
- · Wet weather driving capability
- All-Wheel driving capability (if applicable)
- Load leveling adjustment (if applicable)

When driving with the dissimilar spare tire/wheel additional caution should be given to:

- Towing a trailer
- Driving vehicles equipped with a camper body
- Driving vehicles with a load on the cargo rack

Drive cautiously when using a dissimilar spare tire/wheel and seek service as soon as possible.

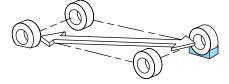
### Tire change procedure

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



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

- 1. Park on a level surface, activate hazard flashers and set parking brake.
- 2. Place gearshift lever in P (Park), turn engine OFF, and block the diagonally opposite wheel.



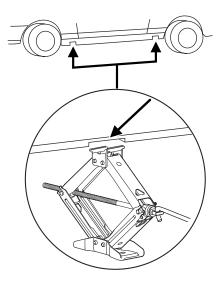
3. Lift the trunk cargo cover and remove the spare tire, jack and lug wrench.



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



5. Put the jack in the jack notch next to the tire you are changing. Turn the jack handle clockwise until the wheel is completely off the ground.



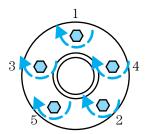
# Never use the rear differential as a jacking point.

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.



- 6. Remove the lug nuts with the lug wrench.
- 7. Replace the flat tire with the spare tire, making sure the valve stem is facing outward. Reinstall lug nuts until the wheel is snug against the hub. Do not fully tighten the lug nuts until the wheel has been lowered.
- 8. Lower the wheel by turning the jack handle counterclockwise.

9. Remove the jack and fully tighten the lug nuts in the order shown. Refer to *Wheel lug nut torque* specifications later in this chapter for the proper lug nut torque specification.



Note: The jack cannot be properly stowed when a full size tire is placed here. Secure the jack and the temporary spare tire as shown after the flat tire has been fixed.

- 10. Put flat tire, jack and lug wrench away. Make sure jack is fastened so it does not rattle when you drive.
- 11. Unblock the wheels.

#### WHEEL LUG NUT TORQUE SPECIFICATIONS

Retighten the lug nuts to the specified torque at 500 miles (800 km) after any wheel disturbance (tire rotation, changing a flat tire, wheel removal, etc.).

Bolt size	Wheel lug nut torque*	
	lb.ft.	N∙m
M12 x 1.5	100	135

<sup>\*</sup> Torque specifications are for nut and bolt threads free of dirt and rust. Use only Ford recommended replacement fasteners.

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

#### INFORMATION CONTAINED ON THE TIRE SIDEWALL

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

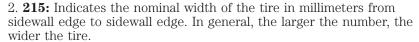
### Information on "P" type tires

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

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

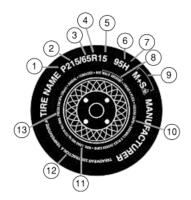
**Note:** If your tire size does not begin with a letter this may mean it is designated by either ETRTO

(European Tire and Rim Technical Organization) or JATMA (Japan Tire Manufacturing Association).



- 3. **65:** Indicates the aspect ratio which gives the tire's ratio of height to width.
- 4. **R:** Indicates a "radial" type tire.
- 5. **15:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.
- 6. **95:** Indicates the tire's load index. It is an index that relates to how much weight a tire can carry. You may find this information in your *Owner's Guide.* If not, contact a local tire dealer.

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



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

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

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

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

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

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

AT: All Terrain, or AS: All Season.

- 10. **Tire Ply Composition and Material Used:** Indicates the number of plies or the number of layers of rubber-coated fabric in the tire tread and sidewall. Tire manufacturers also must indicate the ply materials in the tire and the sidewall, which include steel, nylon, polyester, and others.
- 11. **Maximum Load:** Indicates the maximum load in kilograms and pounds that can be carried by the tire. Refer to the tire label or the safety certification label, which is located on the B-Pillar or the edge of the driver's door, for the correct tire pressure for your vehicle.

### 12. Treadwear, Traction and Temperature Grades

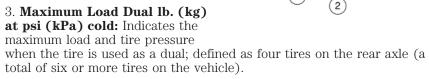
- **Treadwear:** The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100.
- **Traction:** The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.
- **Temperature:** The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.
- 13. **Maximum Permissible Inflation Pressure:** Indicates the tire manufacturers' maximum permissible pressure and/or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the manufacturer's recommended cold inflation pressure which can be found on either the tire label or certification label which is located on the B-Pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the vehicle label.

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

# Additional information contained on the tire sidewall for "LT" type tires

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

- 1. **LT:** Indicates a tire, designated by the Tire and Rim Association (T&RA), that is intended for service on light trucks.
- 2. **Load Range/Load Inflation Limits:** Indicates the tire's load-carrying capabilities and its inflation limits.



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

1.8 9 00 OT 3TA

1

5

### Information on "T" type tires

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

T145/80D16 is an example of a tire

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

- 1. **T:** Indicates a type of tire, designated by the Tire and Rim Association (T&RA), that is intended for temporary service on cars, SUVs, minivans and light trucks.
- JNO JSU YAAAOQ 2. **145:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.
- 3. **80:** Indicates the aspect ratio which gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall.
- 4. **D:** Indicates a "diagonal" type tire.
- **R:** Indicates a "radial" type tire.
- 5. 16: Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

#### Location of the tire label

You will find a tire label containing tire inflation pressure by tire size and other important information located on the B-Pillar or the edge of the driver's door. Refer to the payload description and graphic in the Vehicle loading — with and without a trailer section.

#### **TIRE CARE**

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

#### Tire wear

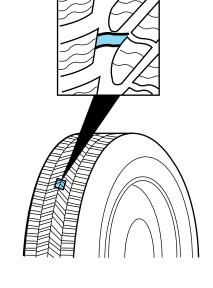
Measure and inspect the tire tread on all your tires periodically. Advanced and unusual tire wear can reduce the ability of tread to grip the road in adverse (wet, snowy, etc.) conditions. Visually check your tires for uneven wear, looking for high and low areas or unusually smooth areas. Also check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

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

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

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

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



#### Safety practices

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

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

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



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

### Highway hazards

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

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

### Tire and wheel alignment

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

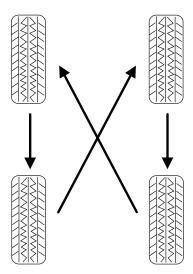
Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by a qualified technician at a Ford or Lincoln Mercury dealer. Front wheel drive (FWD) vehicles and those with an independent rear suspension (if equipped) may require alignment of all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

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

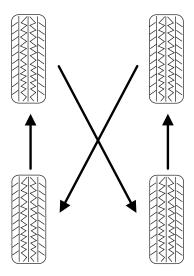
#### Tire rotation

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

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



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



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

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

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

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

#### **SNOW TIRES AND CHAINS**



Driving too fast for conditions creates the possibility of loss of vehicle control.



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

Driving at very high speeds for extended periods of time may result in damage to vehicle components.

The tires on your vehicle have all-weather treads that provide traction in rain or snow.

The use of snow cables is not recommended for this vehicle, as damage to your vehicle may occur under extreme handling or rough road conditions. However, if you choose to operate the vehicle with snow cables, avoid these conditions and follow the manufacturer's recommendations.

Do not use any type of tire chains, as this will likely cause damage to your vehicle.

#### **VEHICLE LOADING - WITH AND WITHOUT A TRAILER**

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

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

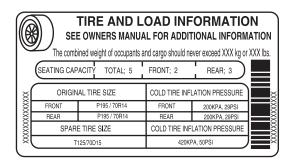
**Vehicle Curb Weight** – is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

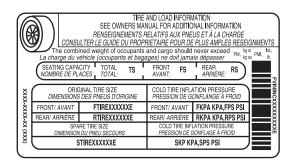


Payload – is the combined weight of cargo and passengers that the vehicle is carrying. The maximum payload for your vehicle can be found on the Tire Label on the B-Pillar or the edge of the driver's door. Look for "THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX kg OR XXX lb." for maximum payload. The payload listed on the tire label is the maximum payload for the vehicle as built by the assembly plant. If any aftermarket or dealer installed equipment has been installed on the vehicle, the weight of the equipment must be subtracted from the payload listed on the tire label in order to determine the new payload.

The appropriate loading capacity of your vehicle can be limited either by volume capacity (how much space is available) or by payload capacity (how much weight the vehicle should carry). Once you have reached the maximum payload of your vehicle, do not add more cargo, even if there is space available. Overloading or improperly loading your vehicle can contribute to loss of vehicle control and vehicle rollover.

### Example only:







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

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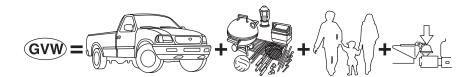
2005 Thunderbird (tbr) Owners Guide (post-2002-fmt) USA (fus)

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

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

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

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

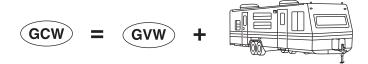


 $\mbox{\bf GVW (Gross Vehicle Weight)}$  – is the Vehicle Curb Weight + cargo + passengers.

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



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



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

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

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



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.



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

#### Steps for determining the correct load limit:

- 1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
- 2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
- 3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- 4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1,400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lb.). In metric units (635-340 (5 x 68) = 295 kg.)
- 5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- 6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

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

- Another example for your vehicle with 1400 lb. (635 kg) of cargo and luggage capacity. You decide to go golfing. Is there enough load capacity to carry you, 4 of your friends and all the golf bags? You and four friends average 220 lb. (99 kg) each and the golf bags weigh approximately 30 lb. (13.5 kg) each. The calculation would be: 1400 (5 x 220) (5 x 30) = 1400 1100 150 = 150 lb. Yes, you have enough load capacity in your vehicle to transport four friends and your golf bags. In metric units, the calculation would be: 635 kg (5 x 99 kg) (5 x 13.5 kg) = 635 495 67.5 = 72.5 kg.
- A final example for your vehicle with 1400 lb. (635 kg) of cargo and luggage capacity. You and one of your friends decide to pick up cement from the local home improvement store to finish that patio you have been planning for the past 2 years. Measuring the inside of the vehicle with the rear seat folded down, you have room for 12-100 lb. (45 kg) bags of cement. Do you have enough load capacity to transport the cement to your home? If you and your friend each weigh 220 lb. (99 kg), the calculation would be: 1400 (2 x 220) (12 x 100) = 1400 440 1200 = –240 lb. No, you do not have enough cargo capacity to carry that much weight. In metric units, the calculation would be: 635 kg (2 x 99 kg) (12 x 45 kg) = 635 198 540 = —103 kg. You will need to reduce the load weight by at least 240 lb. (104 kg). If you remove 3-100 lb. (45 kg) cement bags, then the load calculation would be:

 $1400 - (2 \times 220) - (9 \times 100) = 1400 - 440 - 900 = 60$  lb. Now you have the load capacity to transport the cement and your friend home. In metric units, the calculation would be: 635 kg —  $(2 \times 99 \text{ kg})$  —  $(9 \times 45 \text{ kg}) = 635$  — 198 — 405 = 32 kg.

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

#### TRAILER TOWING

Your vehicle is not equipped to tow. No towing packages are available through Ford or Lincoln/Mercury dealers.

### RECREATIONAL TOWING (ALL WHEELS ON THE GROUND)

Follow these guidelines for your specific powertrain combination to tow your vehicle with all four wheels on the ground (such as behind a recreational vehicle).

These guidelines are designed to ensure that your transmission is not damaged due to insufficient lubrication.

### All Rear Wheel Drive (RWD) vehicles:

This applies to all cars and 4x2 trucks/sport utilities with rear wheel drive capability.

- Place the transmission in N (Neutral)
- Maximum speed is 35 mph (56 km/h)
- Maximum distance is 50 miles (80 km)

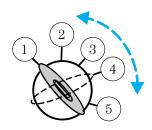
If a distance of 50 miles (80 km) or a speed of 35 mph (56 km/h) must be exceeded, you must disconnect the driveshaft.

Ford recommends the driveshaft be removed/installed only by a qualified technician. Improper removal/installation of the driveshaft may cause damage to the driveshaft and internal transmission components. See your local dealer for driveshaft removal/installation.

#### **STARTING**

#### Positions of the ignition

- 1. LOCK, locks the gearshift lever and allows key removal. (The steering wheel will not lock after key removal.)
- 2. OFF, shuts off the engine and all accessories except the radio, convertible top control and the power windows if accessory delay is active. This position also allows the



automatic transmission shift lever to be moved from the P (Park) position without the brake pedal being depressed.

When the key is in the ignition and in the OFF position, the automatic transmission shift lever can be moved from the P (Park) position without the brake pedal depressed. To reduce the risk of unwanted vehicle movement, always set the parking brake.

- 3. ACCESSORY, allows the electrical accessories such as the radio to operate while the engine is not running.
- 4. RUN, all electrical circuits operational. Warning lights illuminated. Key position when driving.
- 5. START, cranks the engine. Release the key as soon as the engine starts.

#### Preparing to start your vehicle

Engine starting is controlled by the powertrain control system. This system meets all Canadian Interference-Causing Equipment standard requirements regulating the impulse electrical field strength of radio noise.

When starting a fuel-injected engine, don't press the accelerator before or during starting. Only use the accelerator when you have difficulty starting the engine. For more information on starting the vehicle, refer to *Starting the engine* in this chapter.

Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.

Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

Do not start your vehicle in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine. See Guarding against exhaust fumes in this chapter for more instructions.

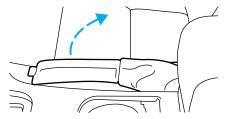
If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

### Important safety precautions

When the engine starts, the idle RPM runs faster to warm the engine. If the engine idle speed does not slow down automatically, have the vehicle checked.

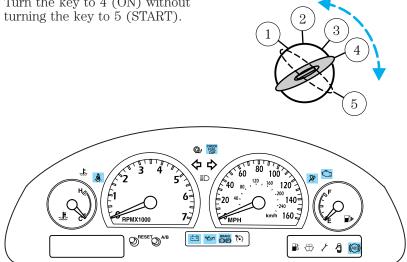
Before starting the vehicle:

- 1. Make sure all occupants buckle their safety belts. For more information on safety belts and their proper usage, refer to the Seating and Safety Restraints chapter.
- 2. Make sure the headlamps and electrical accessories are off.
- 3. Make sure the parking brake is set.



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

• Turn the key to 4 (ON) without

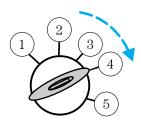


Make sure the corresponding lights illuminate or illuminate briefly. If a light fails to illuminate, have the vehicle serviced.

• If the driver's safety belt is fastened, the 🐐 light may not illuminate.

### Starting the engine

- 1. Turn the key to 4 (ON) without turning the key to 5 (START).
- 2. Turn the key to 5 (START), then release the key as soon as the engine starts. Excessive cranking could damage the starter.



**Note:** If the engine does not start within five seconds on the first try, turn the key to OFF, wait 10 seconds and try again. If the engine still fails to start, press the accelerator to the floor and try again; this will allow the engine to crank with the fuel shut off in case the engine is flooded with fuel.

#### Using the engine block heater (if equipped)

An engine block heater warms the engine coolant which aids in starting and heater/defroster performance. Use of an engine block heater is

strongly recommended if you live in a region where temperatures reach -10°F (-23°C) or below. For best results, plug the heater in at least three hours before starting the vehicle. The heater can be plugged in the night before starting the vehicle.



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

### Guarding against exhaust fumes

Carbon monoxide is present in exhaust fumes. Take precautions to avoid its dangerous effects.



If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

### Important ventilating information

If the engine is idling while the vehicle is stopped for a long period of time, open the windows at least one inch (2.5 cm) or adjust the heating or air conditioning to bring in fresh air.

#### **BRAKES**

Occasional brake noise is normal. If a metal-to-metal, continuous grinding or continuous squeal sound is present, the brake linings may be worn-out and should be inspected by a qualified service technician. If the vehicle has continuous vibration or shudder in the steering wheel while braking, the vehicle should be inspected by a qualified service technician.

Refer to Brake system warning light in the Instrument Cluster chapter for information on the brake system warning light.







#### Four-wheel anti-lock brake system (ABS)

Your vehicle is equipped with an Anti-lock Braking System (ABS). This system helps you maintain steering control during emergency stops by keeping the brakes from locking. Noise from the ABS pump motor and brake pedal pulsation may be observed during ABS braking and the brake pedal may suddenly travel a little farther as soon as ABS braking is done and normal brake operation resumes. These are normal characteristics of the ABS and should be no reason for concern.

### ABS warning lamp

The ABS lamp in the instrument cluster momentarily illuminates when the ignition is turned on. If the light does not illuminate during start up, remains on or flashes, the ABS may be disabled and may need to be serviced.



Even when the ABS is disabled, normal braking is still effective. (If your BRAKE warning lamp illuminates with the parking brake released, have your brake system serviced immediately.)



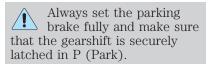
### Using ABS

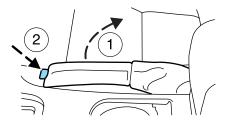
When hard braking is required, apply continuous force on the brake pedal; do not pump the brake pedal since this will reduce the effectiveness of the ABS and will increase your vehicle's stopping distance. The ABS will be activated immediately, allowing you to retain full steering control during hard braking and on slippery surfaces. However, the ABS does not decrease stopping distance.

#### Parking brake

To set the parking brake (1), pull the parking brake handle up as far as possible. The BRAKE warning lamp will illuminate and will remain illuminated until the parking brake is released.

To release, press and hold the button (2), pull the handle up slightly, then push the handle down.







#### TRACTION CONTROL®

Your vehicle is equipped with a Traction Control system. This system helps you maintain the stability and steerability of your vehicle, especially on slippery road surfaces such as snow- or ice-covered roads and gravel roads. The system will allow your vehicle to make better use of available traction in these conditions.

During Traction Control<sup>®</sup> operation, the traction control active light will illuminate, you may hear an electric motor type of sound coming from the engine compartment and the engine will not "rev-up" when you push further on the accelerator. This is normal system behavior and should be no reason for concern.

The Traction Control<sup>®</sup> switch, located on the left-hand side of the instrument panel, has an indicator light that illuminates when the system is off. The Traction Control<sup>®</sup> system will automatically turn on every time the ignition is turned off and on.



If you should become stuck in snow or ice or on a very slippery road surface, try switching the Traction Control<sup>®</sup> system off. This may allow excess wheel spin to "dig" the vehicle out and enable a successful "rocking" maneuver.

If the Traction Control® system is cycled excessively, the brake portion of the system will shut down to prevent the rear brakes from overheating. A limited Traction Control® function using only engine torque reduction will still help control wheels from over-spinning. When the rear brakes have cooled down, the system will again function normally. Anti-lock braking is not affected by this condition and will function normally during the cool down period.

If a system fault is detected, the traction control switch's OFF indicator will illuminate and your vehicle should be serviced.

Aggressive driving in any road conditions can cause you to lose control of your vehicle increasing the risk of severe personal injury or property damage. The occurrence of a Traction Control<sup>®</sup> event is an indication that at least some of the tires have exceeded their ability to grip the road; this may lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death. If you experience a severe road event, SLOW DOWN.

#### **STEERING**

To prevent damage to the power steering system:

- Never hold the steering wheel at its furthest turning points (until it stops) for more than a few seconds when the engine is running.
- Do not operate the vehicle with a low power steering pump reservoir fluid level (below the MIN mark on the reservoir).

If the power steering system breaks down (or if the engine is turned off), you can steer the vehicle manually, but it takes more effort.

If the steering wanders or pulls, check for:

- an improperly inflated tire
- uneven tire wear
- loose or worn suspension components
- loose or worn steering components
- improper steering alignment

A high crown in the road or high crosswinds may also make the steering seem to wander/pull.

#### Speed sensitive steering

The steering in your vehicle is speed sensitive. At high speeds, steering assist will decrease to improve steering feel. At lower speeds, maneuverability will be increased.

If the amount of effort required to steer your vehicle changes while driving at a constant vehicle speed, have the power steering system checked by your dealer or a qualified service technician.

### **AUTOMATIC TRANSMISSION OPERATION**

#### **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 RUN position unless brake pedal is depressed.

If you cannot move the gearshift lever out of P (Park) with ignition in the RUN 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).

When the key is in the ignition and in the OFF position, the automatic transmission shift lever can be moved from the P (Park) position without the brake pedal depressed. To avoid unwanted vehicle movement, always set the parking brake.

### 3. Start the vehicle.

If it is necessary to use the above procedure to move the gearshift lever, it is possible that a fuse has blown or the vehicle's brakelamps are not operating properly. Refer to *Fuses and relays* in the *Roadside Emergencies* chapter.



Do not drive your vehicle until you verify that the brakelamps are working.

Always set the parking brake fully and make sure the gearshift is latched in P (Park). Turn the ignition to the LOCK position and remove the key whenever you leave your vehicle.

If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. See your dealer or a qualified service technician as soon as possible.

### Driving with a 5-speed automatic transmission



This vehicle is equipped with an adaptive Transmission Shift Strategy. Adaptive Shift Strategy offers the optimal transmission operation and shift quality. When the vehicle's battery has been disconnected for any type of service or repair, the transmission will need to relearn the normal shift strategy parameters, much like having to reset your radio stations when your vehicle battery has been disconnected. The Adaptive Transmission Strategy allows the transmission to relearn these operating parameters. This learning process could take several transmission upshifts and downshifts; during this learning process, slightly firmer shifts may occur. After this learning process, normal shift feel and shift scheduling will resume.

#### P (Park)

This position locks the transmission and prevents the rear wheels from turning.

To put your vehicle in gear:

- Start the engine
- Depress the brake pedal
- Move the gearshift lever into the desired gear

To put your vehicle in P (Park):

- Come to a complete stop
- Move the gearshift lever and securely latch it in P (Park)

Always set the parking brake fully and make sure the gearshift is latched in P (Park). Turn the ignition to the LOCK position and remove the key whenever you leave your vehicle.

### R (Reverse)

With the gearshift lever in R (Reverse), the vehicle will move backward. Always come to a complete stop before shifting into and out of R (Reverse).

#### N (Neutral)

With the gearshift lever in N (Neutral), the vehicle can be started and is free to roll. Hold the brake pedal down while in this position.

#### Drive 5 (Overdrive)

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

### Drive 4 (Overdrive cancelled)

Activated when the transmission shift lever is moved to the D4 position.

- This position allows for all forward gears 1-4, except overdrive.
- Provides engine braking.
- Use when driving conditions cause excessive shifting from O/D to other gears. Examples: city traffic, hilly terrain, heavy loads and when engine braking is required.
- To return to D5 (overdrive mode), move the transmission shift lever into the D5 position.
- Select D4 at higher speeds will cause the transmission to downshift into fourth gear.

### 3 (Third)

This position allows for third gear only.

- Provides engine braking.
- To return to D5 or D4, move the transmission shift lever into the D5 or D4 position.
- Selecting 3 (Third) at higher speeds will cause the transmission to downshift to third gear at the appropriate vehicle speed.

### 2 (Second)

This position allows for second gear only.

- Provides engine braking.
- Use to start-up on slippery roads.
- To return to D5 or D4, move the transmission shift lever into the D5, D4 or 3 (Third) position.

• Selecting 2 (Second) at higher speeds will cause the transmission to downshift to second gear at the appropriate vehicle speed.

#### 1 (First)

This position allows for first gear only.

- Provides maximum engine braking.
- Will not downshift into first gear at high speeds; will cause the transmission to downshift to a lower gear, then allows for first gear when the vehicle reaches slower speeds.

#### **Forced downshifts**

- Allowed in Overdrive or Drive.
- Depress the accelerator to the floor.
- Allows transmission to select an appropriate gear.

# Driving with a 5-speed automatic transmission with the Select Shift Transmission (SST) shifter (if equipped)

## Understanding gearshift positions

The Select Shift Transmission (SST) shifter allows the driver to select between the transmission's automatic shift mode or the manually selected shift mode.

#### Automatic shift mode

Operates like a normal automatic transmission for P (Park), R (Reverse), N (Neutral), D5 and D4.

Refer to *Driving with a 5-speed* automatic transmission in this chapter for P (Park), R (Reverse), N (Neutral), D5 and D4 information.



#### Manual shift mode

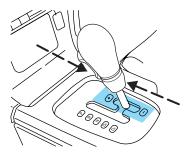
With the gearshift lever in D5 (Overdrive), the gearshift lever can be moved to the right and into the manual shift mode. The transmission will remain in the manual shift mode until the gearshift lever is moved back to D5 (Overdrive).



### + and - position operation

These positions allow the driver to manually select the appropriate upshift (+) or downshift (-) and gear range.

- Can only be entered from the D5 position.
- Gear ranges 1–5 provide the same function and ratio as found in the D5 or D4 automatic mode positions.



- Transmission will not upshift or downshift unless the selector lever is moved forward or rearward.
- One tap forward (+) will **command** the transmission to upshift one gear range.
- One tap rearward (-) will **command** the transmission to downshift one gear range.
- Upshifts are allowed at any vehicle speed, with the exception of 4th and 5th gear. The transmission will not do a 4th or 5th gear start. Ensure that the transmission is returned to 1st gear once the vehicle is stopped. If this is not done, and the transmission is in 2nd or 3rd gear, the vehicle will remain in that gear. However, if the transmission is in 4th or 5th gear, the transmission will automatically return to 1st gear.
- When downshifting at normal road speeds, the transmission will only allow a downshift into the **next lower** gear.

- If shifter (-) is tapped more than once in rapid succession, the transmission will downshift only into the next lower gear, then when the vehicle reaches a speed below a calibrated entry speed, the transmission will allow a downshift into the next lower gear if again selected by the driver. This is to prevent engine and transmission damage and to keep the engine and transmission within allowable RPM ranges.
- An electronic indicator on the instrument cluster will display the selected gear.

### Recommended shift speeds

Upshift according to the following chart:

Recommended upshift schedule		
Shift from:		
1 - 2	15 mph (24 km/h)	
2 - 3	25 mph (40 km/h)	
3 - 4	40 mph (64 km/h)	
4 - 5	45 mph (72 km/h)	

### If your vehicle gets stuck in mud or snow

If your vehicle gets stuck in mud or snow, it may be rocked out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.

Do not rock the vehicle if the engine is not at normal operating temperature or damage to the transmission may occur. Do not rock the vehicle for more than a minute or damage to the

transmission and tires may occur, or the engine may overheat.

#### **DRIVING THROUGH WATER**

If driving through deep or standing water is unavoidable, proceed very slowly especially when the depth is not known. Never drive through water that is higher than the bottom of the hubs (for trucks) or the bottom of the wheel rims (for cars). When driving through water, traction or brake capability may be limited. Also, water may enter your engine's air intake and severely damage your engine or your vehicle may stall. Driving through deep water where the transmission vent tube is submerged may allow water into the transmission and cause internal transmission damage.

Once through the water, always dry the brakes by moving your vehicle slowly while applying light pressure on the brake pedal. Wet brakes do not stop the vehicle as quickly as dry brakes.

#### **GETTING ROADSIDE ASSISTANCE**

To fully assist you should you have a vehicle concern, Ford Motor Company offers a complimentary roadside assistance program. This program is separate from the New Vehicle Limited Warranty. The service is available:

- 24-hours, seven days a week
- for the New Vehicle Limited Warranty period of three years or 36,000 miles (60,000 km), whichever occurs first on Ford and Mercury vehicles, and four years or 50,000 miles (80,000 km) on Lincoln vehicles.

Roadside assistance will cover:

- a flat tire change with a good spare (except Ford GT which has a tire inflation kit)
- battery jump start
- lock-out assistance (key replacement cost is the customer's responsibility)
- fuel delivery (2.0 gallons [7.5L], maximum two occurrences within 12 month period)
- towing of your disabled vehicle to the nearest Ford Motor Company dealership, or your selling dealer if within 35 miles (56.3 km) of the nearest Ford Motor Company dealership (one tow per disablement). Even non-warranty related tows, like accidents, are covered (some exclusions apply, such as impound towing or repossession).

# Canadian customers refer to your Owner Information Guide for information on:

- · coverage period
- exact fuel amounts
- towing of your disabled vehicle
- emergency travel expense reimbursement
- travel planning benefits

### Using roadside assistance

Complete the roadside assistance identification card and place it in your wallet for quick reference. In the United States, this card is found in the Owner Guide portfolio in the glove compartment. In Canada, the card is found in the *Owner Information Guide* in the glove compartment.

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

Canadian customers who require roadside assistance, call 1–800–665–2006.

If you need to arrange roadside assistance for yourself, Ford Motor Company will reimburse a reasonable amount. To obtain reimbursement information, U.S. Ford or Mercury vehicles customers call 1-800-241-3673; Lincoln vehicle customers call 1-800-521-4140.

Canadian customers who need to obtain reimbursement information, call 1–800–665–2006.

### Roadside coverage beyond basic warranty

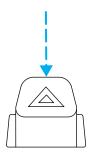
In the United States, you may purchase additional roadside assistance coverage beyond this period through the Ford Auto Club by contacting your Ford or Lincoln Mercury dealer.

Similarly in Canada, for uninterrupted Roadside Assistance coverage, you may purchase extended coverage prior to your Basic Warranty's Roadside Assistance expiring. For more information and enrollment, contact 1–877–294–2582 or visit our website at www.ford.ca.

## HAZARD FLASHER 🛦

The hazard flasher is located on the steering column, just behind the steering wheel. The hazard flashers will operate when the ignition is in any position or if the key is not in the ignition.

Push in the flasher control and all front and rear direction signals will flash. Press the flasher control again to turn them off. Use it when your vehicle is disabled and is creating a safety hazard for other motorists.



Note: With extended use, the flasher may run down your battery.

# FUEL PUMP SHUT-OFF SWITCH FUEL RESET

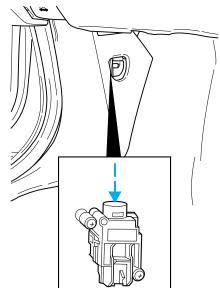
This device stops the electric fuel pump from sending fuel to the engine when your vehicle has had a substantial jolt.

After an accident, if the engine cranks but does not start, this switch may have been activated.

This switch is located in the driver's footwell, behind the kick panel.

To reset the switch:

- 1. Turn the ignition OFF.
- 2. Check the fuel system for leaks.
- 3. If no leaks are apparent, reset the switch by pushing in on the reset button.
- 4. Turn the ignition ON.
- 5. Wait a few seconds and return the key to OFF.
- 6. Make another check for leaks.



#### **FUSES AND RELAYS**

#### **Fuses**

If electrical components in the vehicle are not working, a fuse may have blown. Blown fuses are identified by a broken wire within the fuse. Check the appropriate fuses before replacing any electrical components.



**Note:** Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.

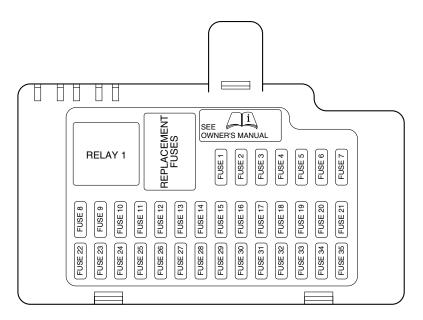
## Standard fuse amperage rating and color

COLOR					
Fuse rating	Mini fuses	Standard fuses	Maxi fuses	Cartridge maxi fuses	Fuse link cartridge
2A	Grey	Grey		_	
3A	Violet	Violet		_	
4A	Pink	Pink		_	
5A	Tan	Tan	_	_	
7.5A	Brown	Brown		_	
10A	Red	Red		_	
15A	Blue	Blue		_	
20A	Yellow	Yellow	Yellow	Blue	Blue
25A	Natural	Natural		_	
30A	Green	Green	Green	Pink	Pink
40A	_		Orange	Green	Green
50A			Red	Red	Red
60A			Blue		Yellow
70A	_	_	Tan	_	Brown
80A			Natural		Black

## Passenger compartment fuse panel

The fuse panel is located on the right-hand side kick panel. Remove the panel cover to access the fuses.

To remove a fuse use the fuse puller tool provided on the fuse panel cover.



The fuses are coded as follows.

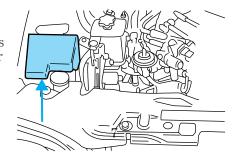
Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
1	5A	Starter relay coil
2	5A	Radio start signal
3	5A	Anti-lock Brake System (ABS) module
4	5A	Cluster, Powertrain Control Module (PCM) relay coil, Inertia switch, Transmission park switch
5	5A	Traction control switch, Cruise deactivation brake switch and transmission mode switch
6	10A	OBD II connector
7	5A	PCM, Remote Keyless Entry (RKE), Anti-theft indicator

Fuse/Relay	Fuse Amp	Passenger Compartment Fuse
Location	Rating	Panel Description
8	5A	Right-hand turn/park lamp and
		side marker
9	15A	Right-hand headlamp
10	5A	Left-hand turn/park lamp and side marker
11	15A	Left-hand headlamp
12	10A	Passenger air bag on/off switch indicator
13	5A	Cluster
14	10A	Air bag module
15	5A	Not used (spare)
16	5A	Driver and passenger heated seat modules
17	5A	Cluster
18	20A	Radio, Central imaging amplifier
19	15A	Tilt/Tele motors
20	10A	Front Electronics Module (FEM), Dual Automatic Temperature Control (DATC), Cluster
21	10A	Not used (spare)
22	10A	Not used (spare)
23	10A	Not used (spare)
24	5A	Passive anti-theft transceiver
25	10A	Not used (spare)
26	3A	Windshield wiper module
27	10A	Radio
28	10A	Not used (spare)
29	5A	DATC
30	5A	FEM
31	10A	Glove box and foot well lamps
32	20A	Cigar lighter
33	10A	FEM (Dimmer control lamps)

Fuse/Relay Location	Fuse Amp Rating	Passenger Compartment Fuse Panel Description
34	5A	Outside mirrors
35	5A	Brake pedal switch
Relay 1	<u></u>	Not used

### Front power distribution box

The front 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.

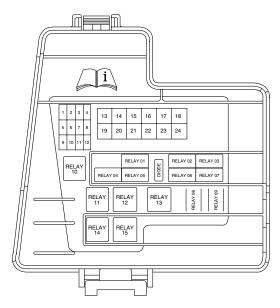




Always disconnect the battery before servicing high current fuses.



If the battery has been disconnected and reconnected, refer to the *Battery* section of the *Maintenance and specifications* chapter.



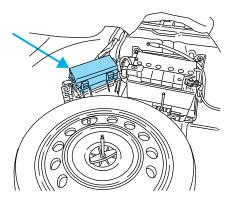
The high-current fuses are coded as follows.

Fuse/Relay	Fuse Amp	Power Distribution Box
Location	Rating	Description
1	10A*	A/C clutch
2		Not used
3	10A*	Park lamp
4	20A*	Horn
5	15A*	Fuel injectors
6	15A*	Transmission solenoids
7	_	Not used
8	20A*	Power point
9	_	Not used
10	_	Not used
11	15A*	Heated Exhaust Gas Oxygen
		(HEGO) sensors
12	15A*	Coil-on-plug

Fuse/Relay	Fuse Amp	Power Distribution Box
Location	Rating	Description
13	_	Not used
14	30A**	ABS module power
15	_	Not used
16	30A**	Blower motor
17	_	Not used
18	40A**	PCM
19	_	Not used
20	_	Not used
21	30A**	Starter solenoid
22	40A**	ABS pump
23	_	Not used (fuse plug)
24	30A**	Wiper module
Relay 01	_	Not used
Relay 02	_	Not used
Relay 03	1/2 ISO Relay	Coil-on-plug and HEGOs
Relay 04	_	Not used
Relay 05	1/2 ISO Relay	Auxiliary coolant pump
Relay 06	1/2 ISO Relay	Horn
Relay 07	_	Not used
Relay 08	1/2 ISO Relay	A/C clutch
09	60A**	Cooling fan motor
Relay 10	Full ISO Relay	Blower motor
Relay 11	_	Not used
Relay 12	_	Not used
Relay 13		Not used
Relay 14	Full ISO Relay	PCM
Relay 15	Full ISO Relay	Starter motor
Diode	_	PCM relay coil
*Mini fuses **Cartridge fuses		

### Rear power distribution box

The rear power distribution box is located in the luggage compartment under the spare tire well cover. The power distribution box contains high-current fuses that protect your vehicle's main electrical systems from overloads.

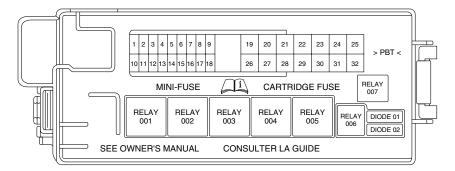




Always disconnect the battery before servicing high current fuses.

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.



The high-current fuses are coded as follows.

Fuse/Relay	Fuse Amp	Power Distribution Box
Location	Rating	Description
1	15A*	Rear Electronics Module (REM)
2	5A*	License plate lamp and rear side
		markers
3	10A*	Left rear stop/turn/tail lamp
4	10A*	Luggage compartment lamp,
		Map/courtesy overhead lamp,
		Homelink transmitter
5	5A*	REM - Hard top sense
6	10A*	Back-up lamps
7	10A*	Right rear stop/turn/tail lamp
8	5A*	Center high-mounted stop lamp
9	_	Not used
10	15A*	Passenger heated seat
11	15A*	Driver heated seat
12	5A*	REM
13		Not used
14	5A*	Convertible top relay coil
15	5A*	Alternator sense
16	_	Not used
17	15A*	Fuel pump
18	20A*	Subwoofer amplifier
19	30A**	Driver power seat
20	30A**	FEM - Left front window
21		Not used
22	20A**	Ignition switch
23	30A**	SSP4
24	30A**	SSP3
25	40A**	Passenger compartment fuse
		panel
26	30A**	Passenger power seat
27	30A**	SSP1
28	30A**	REM -Right front window

Fuse/Relay Location	Fuse Amp Rating	Power Distribution Box Description
29	30A**	Rear defroster
30	_	Not used
31	40A**	Convertible top motor
32	30A**	SSP2
Relay 001	Full ISO	SSP1
Relay 002	Full ISO	SSP4
Relay 003	Full ISO	Rear defroster
Relay 004	Full ISO	SSP3
Relay 005	Full ISO	SSP2
Relay 006	_	Not used
Relay 007	1/2 ISO	Fuel pump
Diode 01	<u> </u>	Not used
Diode 02	1A	Fuel pump relay coil
*Mini fuses **Cartridge fuses		

#### JUMP STARTING YOUR VEHICLE

The gases around the battery can explode if exposed to flames, sparks, or lit cigarettes. An explosion could result in injury or vehicle damage.



Batteries contain sulfuric acid which can burn skin, eyes and clothing, if contacted.

Do not attempt to push-start your vehicle. Automatic transmissions do not have push-start capability; doing so may damage the catalytic converter.

### Preparing your vehicle

Your battery is located in the trunk of your vehicle. See Lockable and electronic trunk remote control in the Driver Controls chapter for instructions on opening the trunk with a dead battery.

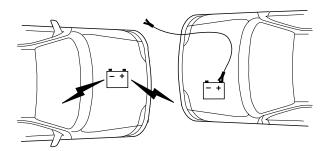
When the battery is disconnected or a new battery is installed, the transmission must relearn its shift strategy. As a result, the transmission

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 to its optimum shift feel.

### 1. Use only a 12-volt supply to start your vehicle.

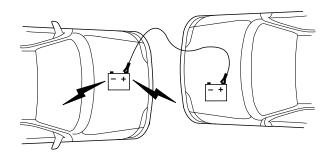
- 2. Do not disconnect the battery of your disabled vehicle as this could damage the vehicle's electrical system. Keep the battery vent hose attached at all times.
- 3. Park the booster vehicle close to the trunk of your disabled vehicle making sure the two vehicles **do not** touch. Set the parking brake on both vehicles and stay clear of the engine cooling fan and other moving parts.
- 4. Check all battery terminals and remove any excessive corrosion before you attach the battery cables. Ensure the vent caps are tight and level.
- 5. Turn the heater fan on in both vehicles to protect any electrical surges. Turn all other accessories off.

### Connecting the jumper cables

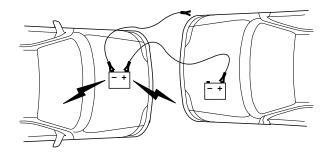


1. Connect the positive (+) jumper cable to the positive (+) terminal of the discharged battery.

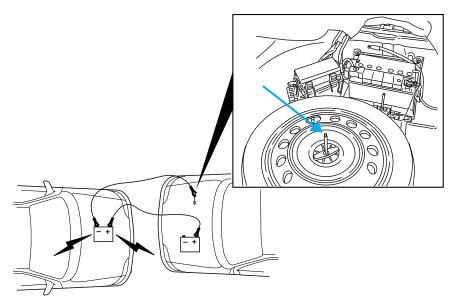
**Note:** In the illustrations, *lightning bolts* are used to designate the assisting (boosting) battery.



2. Connect the other end of the positive (+) cable to the positive (+) terminal of the assisting battery.



3. Connect the negative (-) cable to the negative (-) terminal of the assisting battery.



4. Make the final connection of the negative (-) cable to the spare tire tie-down stud. (Your vehicle may be equipped with a plastic cap on top of the tire tie-down stud. This cap must be removed prior to attaching the cable to the stud.)

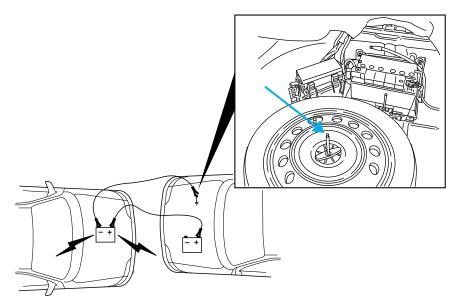
Do not connect the end of the second cable to the negative (-) terminal of the battery to be jumped. A spark may cause an explosion of the gases that surround the battery.

5. Ensure that the cables are clear of fan blades, belts, moving parts of both engines, or any fuel delivery system parts.

## Jump starting

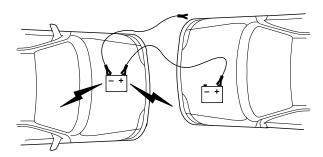
- 1. Start the engine of the booster vehicle and run the engine at moderately increased speed.
- 2. Start the engine of the disabled vehicle.
- 3. Once the disabled vehicle has been started, run both engines for an additional three minutes before disconnecting the jumper cables.

# Removing the jumper cables

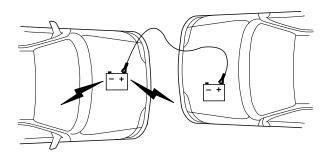


# Remove the jumper cables in the reverse order that they were connected.

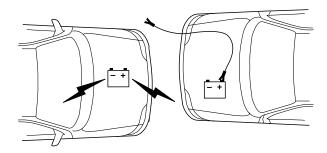
1. Remove the jumper cable from the spare tire tie-down stud.



 $2.\ \mbox{Remove}$  the jumper cable on the negative (-) connection of the booster vehicle's battery.



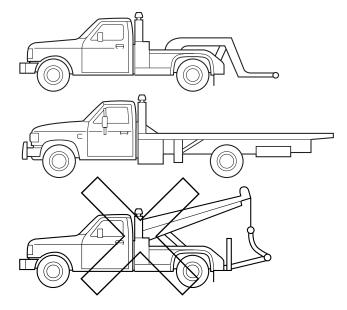
3. Remove the jumper cable from the positive (+) terminal of the booster vehicle's battery.



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.

# WRECKER TOWING



If you need to have your vehicle towed, contact a professional towing service or, if you are a member of a roadside assistance program, your roadside assistance service provider.

It is recommended that your vehicle be towed with a wheel lift or flatbed equipment. Do not tow with a slingbelt. Ford Motor Company has not approved a slingbelt towing procedure.

# 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.

#### **GETTING THE SERVICES YOU NEED**

#### At home

You must take your Ford vehicle to an authorized Ford dealer for warranty repairs. While any Ford dealership handling your vehicle line will provide warranty service, we recommend you return to your selling dealer who wants to ensure your continued satisfaction. Please note that certain warranty repairs require special training and/or equipment, so not all dealers are authorized to perform all warranty repairs. This means that, depending on the warranty repair needed, you may have to take your vehicle to another dealer. A reasonable time must be allowed to perform a repair after taking your vehicle to the dealership. Repairs will be made using Ford or Motorcraft parts, or remanufactured or other parts that are authorized by Ford.

If you have questions or concerns, or are unsatisfied with the service you are receiving, follow these steps:

- 1. Contact your Sales Representative or Service Advisor at your selling/servicing dealership.
- 2. If your inquiry or concern remains unresolved, contact the Sales Manager, Service Manager or Customer Relations Manager.
- 3. If you require assistance or clarification on Ford Motor Company policies or procedures, please contact the Ford Customer Relationship Center at 1-800-392-3673 (FORD).

#### Away from home

If you own a Ford or Mercury vehicle and are away from home when your vehicle needs service, or if you need more help than the dealership could provide, after following the steps described above, contact the Ford Customer Relationship Center to find an authorized dealership to help you.

In the United States:

Ford Motor Company Customer Relationship Center P.O. Box 6248 Dearborn, MI 48121 1-800-392-3673 (FORD) (TDD for the hearing impaired: 1-800-232-5952) www.customersaskford.com

In Canada:

Customer Relationship Centre

Ford Motor Company of Canada, Limited P.O. Box 2000 Oakville, Ontario L6J 5E4 1-800-565-3673 (FORD) www.ford.ca

If you own a Lincoln vehicle and are away from home when your vehicle needs service, or if you need more help than the dealership could provide, after following the steps described above, contact the Ford Customer Relationship Center to find an authorized dealership to help you.

In the United States:
Ford Motor Company
Customer Relationship Center
P.O. Box 6248
Dearborn, MI 48121
1-800-521-4140
(TDD for the hearing impaired: 1-800-232-5952)
www.customersaskford.com

In Canada: Lincoln Centre Ford Motor Company of Canada, Limited P.O. Box 2000 Oakville, Ontario L6J 5E4 1-800-387-9333 www.lincolncanada.com

In order to help you service your Lincoln vehicle, please have the following information available when contacting the Lincoln Centre:

- Your telephone number (home and business)
- The name of the dealer and the city where the dealership is located
- The year and make of your vehicle
- The date of vehicle purchase
- The current odometer reading
- The vehicle identification number (VIN)

### Additional Assistance

If you still have a complaint involving a warranty dispute, you may wish to contact the Dispute Settlement Board (U.S.).

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.

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In the United States, a warranty dispute must be submitted to the Dispute Settlement Board before taking action under the Magnuson-Moss Warranty Act, or to the extent allowed by state law, before pursuing replacement or repurchase remedies provided by certain state laws. This dispute handling procedure is not required prior to enforcing state created rights or other rights which are independent of the Magnuson-Moss Warranty Act or state replacement or repurchase laws.

### IN CALIFORNIA (U.S. ONLY)

California Civil Code Section 1793.2(d) requires that, if a manufacturer or its representative is unable to repair a motor vehicle to conform to the vehicle's applicable express warranty after a reasonable number of attempts, the manufacturer shall be required to either replace the vehicle with one substantially identical or repurchase the vehicle and reimburse the buyer in an amount equal to the actual price paid or payable by the consumer (less a reasonable allowance for consumer use). The consumer has the right to choose whether to receive a refund or replacement vehicle.

California Civil Code Section 1793.22(b) presumes that the manufacturer has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within the first 18 months of ownership of a new vehicle or the first 18,000 miles (29,000 km), whichever occurs first:

- 1. Two or more repair attempts are made on the same non-conformity likely to cause death or serious bodily injury OR
- 2. Four or more repair attempts are made on the same nonconformity (a defect or condition that substantially impairs the use, value or safety of the vehicle) OR
- 3. The vehicle is out of service for repair of nonconformities for a total of more than 30 calendar days (not necessarily all at one time)

In the case of 1 or 2 above, the consumer must also notify the manufacturer of the need for the repair of the nonconformity at the following address:

Ford Motor Company 16800 Executive Plaza Drive Mail Drop 3NE-B Dearborn, MI 48126

## 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.

### **Board membership**

The Board consists of:

• Three consumer representatives

• A Ford or Lincoln Mercury dealership representative

Consumer candidates for Board membership are recruited and trained by an independent consulting firm. The dealership Board member is chosen from Ford and Lincoln Mercury dealership management, recognized for their business leadership qualities.

#### What the Board needs

To have your case reviewed you must complete the application in the DSB brochure and mail it to the address provided on the application form. Some states will require you to use certified mail, with return receipt requested.

Your application is reviewed and, if it is determined to be eligible, you will receive an acknowledgment indicating:

- The file number assigned to your application.
- The toll-free phone number of the DSB's independent administrator.

Your dealership and a Ford Motor Company representative will then be asked to submit statements.

To properly review your case, the Board needs the following information:

- Legible copies of all documents and maintenance or repair orders relevant to the case.
- The year, make, model, and Vehicle Identification Number (VIN) listed on your vehicle ownership license.
- The date of repair(s) and mileage at the time of occurrence(s).
- The current mileage.
- The name of the dealer(s) who sold or serviced the vehicle.
- A brief description of your unresolved concern.
- A brief summary of the action taken by the dealer(s) and Ford Motor Company.
- The names (if known) of all the people you contacted at the dealership(s).
- A description of the action you expect to resolve your concern.

You will receive a letter of explanation if your application does not qualify for Board review.

#### Oral presentations

If you would like to make an oral presentation, indicate YES to question 6 on the application. While it is your right to make an oral presentation

before the Board, this is not a requirement and the Board will decide the case whether or not an oral presentation is made. An oral presentation may be requested by the Board as well.

### Making a decision

Board members review all available information related to each complaint, including oral presentations, and arrive at a fair and impartial decision. Board review may be terminated at any time by either party.

Every effort is made to decide the case within 40 days of the date that all requested information is received by the Board. Since the Board generally meets once a month, it may take longer for the Board to consider some cases.

After a case is reviewed, the Board mails you a decision letter and a form on which to accept or reject the Board's decision. The decisions of the Board are binding on Ford (and, in some cases, on the dealer) but not on consumers who are free to pursue other remedies available to them under state or federal law.

### To request a DSB Brochure/Application

For a brochure/application, speak to your dealer or write/call the Board at the following address/phone number:

Dispute Settlement Board P.O. Box 1424 Waukesha, WI 53187–1424 1–800–428–3718

You may also contact the North American Customer Relationship Center at 1-800-392-3673 (Ford), TDD for the hearing impaired: 1-800-232-5952 or by writing to the Center at the following address:

Ford Motor Company Customer Relationship Center P.O. Box 6248 Dearborn, Michigan 48121

# UTILIZING THE MEDIATION/ARBITRATION PROGRAM (CANADA ONLY)

In those cases where you continue to feel that the efforts by Ford of Canada 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 as the arbitrator's award is binding both to you and Ford of Canada.

CAMVAP services are available in all territories and provinces. For more information, without charge or obligation, call your CAMVAP Provincial Administrator directly at 1-800-207-0685.

#### FORD EXTENDED SERVICE PLAN

You can get more protection for your new car or light truck by purchasing Ford Extended Service Plan (Ford ESP) coverage. It provides the following:

- Benefits during the warranty period depending on the plan you purchase (such as: reimbursement for rentals; coverage for certain maintenance and wear items).
- Protection against covered repair costs after your Bumper-to-Bumper Warranty expires.

You may purchase Ford ESP from any participating Ford and Lincoln Mercury and Ford of Canada dealer. There are several plans available in various time, distance and deductible combinations which can be tailored to fit your own driving needs. Ford ESP also offers reimbursement benefits for towing and rental coverage.

When you buy Ford ESP, you receive Peace-of-Mind protection throughout the United States and Canada, provided by a network of more than 4,600 participating Ford or Lincoln Mercury and Ford of Canada dealers.

If you did not take advantage of the Ford Extended Service Plan at the time of purchasing your vehicle, you may still be eligible. Since this information is subject to change, please ask your dealer for complete details about Ford Extended Service Plan coverage options, or visit the Ford ESP website at www.ford-esp.com.

#### 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 regional office 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. Using leaded fuel may also result in difficulty importing your vehicle back into the U.S.

If your vehicle must be serviced while you are traveling or living in Central or South America, the Caribbean, or the Middle East, contact the nearest Ford dealership. If the dealership cannot help you, write or call:

FORD MOTOR COMPANY WORLDWIDE DIRECT MARKET OPERATIONS 1555 Fairlane Drive Fairlane Business Park #3 Allen Park, Michigan 48101

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

For a free publication catalog, order toll free: 1-800-782-4356

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2005 Thunderbird (tbr)
Owners Guide (post-2002-fmt)
USA (fus)

Monday-Friday 8:00 a.m. - 6:00 p.m. EST

Helm, Incorporated can also be reached by their website: www.helminc.com.

(Items in this catalog may be purchased by credit card, check or money order.)

### Obtaining a French owner's guide

French Owner's Guides can be obtained from your dealer or by writing to Ford Motor Company of Canada, Limited, Service Publications, P.O. Box 1580, Station B, Mississauga, Ontario L4Y 4G3.

### REPORTING SAFETY DEFECTS (U.S. ONLY)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety



Administration (NHTSA) in addition to notifying Ford Motor Company.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ford Motor Company.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1–800–424–9393 (or 366–0123 in the Washington D.C. area) or write to:

NHTSA 400 Seventh Street U.S. Department of Transportation Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from the Hotline.

# **Cleaning**

## **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.

- Using high water pressure or wand-type car washes against the convertible top and windows may cause water leaks and possible seal damage.
- Never use strong household detergents or soap, such as dish washing or laundry liquid. These products can discolor and spot painted surfaces.
- Never wash a vehicle that is "hot to the touch" or during exposure to strong, direct sunlight.
- Always use a clean sponge or car wash mitt with plenty of water for best results.
- Dry the vehicle with a chamois or soft terry cloth towel in order to eliminate water spotting.
- It is especially important to wash the vehicle regularly during the winter months, as dirt and road salt are difficult to remove and cause damage to the vehicle.
- Immediately remove items such as gasoline, diesel fuel, bird droppings and insect deposits because they can cause damage to the vehicle's paintwork and trim over time.
- Remove any exterior accessories, such as antennas, before entering a car wash.
- Suntan lotions and insect repellents can damage any painted surface; if these substances come in contact with your vehicle, wash off as soon as possible.

### WAXING

Applying Motorcraft Paint Sealant (ZC-45) 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; use Motorcraft Premium Liquid Wax (ZC-53-A), which is available from your dealer, or an equivalent quality product.

## Cleaning

• 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.

#### **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 jamb) to your dealer to ensure you get the correct color.

- Remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout before repairing paint chips.
- Always read the instructions before using the products.

#### **ALUMINUM WHEELS AND WHEEL COVERS**

Aluminum wheels and wheel covers are coated with a clearcoat paint finish. In order to maintain their shine:

- Clean weekly with Motorcraft Wheel and Tire Cleaner (ZC-37-A), which is available from your dealer. Heavy dirt and brake dust accumulation may require agitation with a sponge. Rinse thoroughly with a strong stream of water.
- Never apply any cleaning chemical to hot or warm wheel rims or covers.
- Some automatic car washes may cause damage to the finish on your wheel rims or covers. Chemical-strength cleaners, or cleaning chemicals, in combination with brush agitation to remove brake dust and dirt, could wear away the clearcoat finish over time.
- Do not use hydrofluoric acid-based or high caustic-based wheel cleaners, steel wool, fuels or strong household detergent.
- To remove tar and grease, use Motorcraft Bug and Tar Remover (ZC-42), available from your dealer.

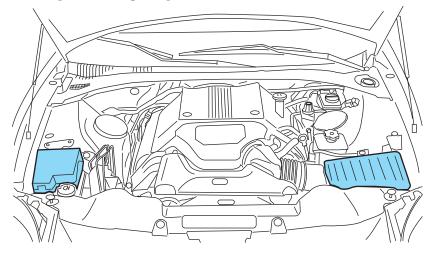
#### **ENGINE**

Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal. When washing:

- Take care when using a power washer to clean the engine. The high-pressure fluid could penetrate the sealed parts and cause damage.
- Do not spray a hot engine with cold water to avoid cracking the engine block or other engine components.

# **Cleaning**

• 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.
- Never wash or rinse the engine while it is running; water in the running engine may cause internal damage.

#### PLASTIC (NON-PAINTED) EXTERIOR PARTS

Use only approved products to clean plastic parts. These products are available from your dealer.

- For routine cleaning, use Motorcraft Detail Wash (ZC-3-A).
- If tar or grease spots are present, use Motorcraft Bug and Tar Remover (ZC-42).

## WINDOWS AND WIPER BLADES

The windshield, rear and side windows and the wiper blades should be cleaned regularly. If the wipers do not wipe properly, substances on the vehicle's glass or the wiper blades may be the cause. These may include hot wax treatments used by commercial car washes, tree sap, or other organic contamination. To clean these items, please follow these tips:

• The windshield, rear windows and side windows may be cleaned with a non-abrasive cleaner such as Motorcraft Ultra-Clear Spray Glass Cleaner (ZC-23), available from your dealer.

## Cleaning

- Do not use abrasives, as they may cause scratches.
- Do not use fuel, kerosene, or paint thinner to clean any parts.
- Wiper blades can be cleaned with isopropyl (rubbing) alcohol or windshield washer solution. Be sure to replace wiper blades when they appear worn or do not function properly.

#### **INSTRUMENT PANEL AND CLUSTER LENS**

Clean the instrument panel with a damp cloth, then with a clean, dry cloth, or use Motorcraft Dash & Vinyl Cleaner (ZC-38-A).

 Avoid cleaners or polish that increase the gloss of the upper portion of the instrument panel. The dull finish in this area helps protect the driver from undesirable windshield reflection.

Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the air bag system.

 Be certain to wash or wipe your hands clean if you have been in contact with certain products such as insect repellent and suntan lotion in order to avoid possible damage to the interior painted surfaces.

#### **INTERIOR TRIM**

- Clean the interior trim areas with a damp cloth, then with a clean, dry cloth; you may also use Motorcraft Dash & Vinyl Cleaner (ZC-38-A).
- Do not use household or glass cleaners as these may damage the finish.

#### CONVERTIBLE TOP AND PADDED MOLDING

Wash the convertible top and padded molding with a high quality convertible top cleaner/protectant. **Note:** If your vehicle is equipped with a light-colored convertible top, the top requires regular washing and care in order to maintain its condition and prevent permanent staining.

- Hot waxes applied by commercial car washes can affect the cleanability of the convertible top material.
- Using high water pressure or wand-type car washes against the convertible top and windows may cause water leaks and possible seal damage.
- Do not use stiff bristle brushes or abrasive materials or cleaners.

## **Cleaning**

#### **INTERIOR**

For fabric, carpets, cloth seats, safety belts and seats equipped with side air bags:

- Remove dust and loose dirt with a vacuum cleaner.
- Remove light stains and soil with Motorcraft Professional Strength Carpet & Upholstery Cleaner (ZC-54).
- 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 safety belts, as these actions may weaken the belt webbing.

Do not use chemical solvents or strong detergents when cleaning the seat-mounted side air bag. Such products could contaminate the side air bag system and affect performance of the side air bag in a collision.

#### **LEATHER SEATS**

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.

**Note:** In some instances, color or dye transfer can occur when wet clothing comes in contact with leather upholstery. If this occurs, the leather should be cleaned immediately to avoid permanent staining.

## **UNDERBODY**

Flush the complete underside of your vehicle frequently. Keep body and door drain holes free from packed dirt.

## **Cleaning**

#### FORD AND LINCOLN MERCURY CAR CARE PRODUCTS

Your Ford or Lincoln 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 Bug and Tar Remover (ZC-42)

Motorcraft Car Care Kit (ZC-26)

Motorcraft Car Wash (Canada only) (CXC-21)

Motorcraft Custom Bright Metal Cleaner (ZC-15)

Motorcraft Custom Clear Coat Polish (ZC-8-A)

Motorcraft Custom Vinyl Protectant (U.S. only) (ZC-40-A)

Motorcraft Dash and Vinyl Cleaner (ZC-38-A)

Motorcraft Deluxe Leather and Vinyl Cleaner (U.S. only) (ZC-11-A)

Motorcraft Detail Wash (ZC-3-A)

Motorcraft Dusting Cloth (ZC-24)

Motorcraft Engine Shampoo and Degreaser (U.S. only) (ZC-20)

Motorcraft Engine Shampoo (Canada only) (CXC-66-A)

Motorcraft One Step Wash and Wax Concentrate (ZC-6-A)

Motorcraft Paint Sealant (ZC-45)

Motorcraft Premium Car Wash Concentrate (U.S. only) (ZC-17-B)

Motorcraft Premium Glass Cleaner (Canada only) (CXC-100)

Motorcraft Premium Liquid Wax (ZC-53-A)

Motorcraft Professional Strength Carpet & Upholstery Cleaner (ZC-54)

Motorcraft Spot and Stain Remover (U.S. only) (ZC-14)

Motorcraft Tire Clean and Shine (ZC-28)

Motorcraft Triple Clean (U.S. only) (ZC-13)

Motorcraft Ultra-Clear Spray Glass Cleaner (ZC-23)

Motorcraft Vinyl Cleaner (Canada only) (CXC-93)

Motorcraft Vinyl Conditioner (Canada only) (CXC-94)

Motorcraft Wheel and Tire Cleaner (ZC-37-A)

#### SERVICE RECOMMENDATIONS

To help you service your vehicle:

- We highlight do-it-yourself items in the engine compartment for easy location.
- We provide *scheduled maintenance information* which makes tracking routine service easy.

If your vehicle requires professional service, your dealership can provide the necessary parts and service. Check your *Warranty Guide/Owner Information Guide* to find out which parts and services are covered.

Use only recommended fuels, lubricants, fluids and service parts conforming to specifications. Motorcraft parts are designed and built to provide the best performance in your vehicle.

## PRECAUTIONS WHEN SERVICING YOUR VEHICLE

- Do not work on a hot engine.
- Make sure that nothing gets caught in moving parts.
- Do not work on a vehicle with the engine running in an enclosed space, unless you are sure you have enough ventilation.
- Keep all open flames and other burning (cigarettes) material away from the battery and all fuel related parts.

## Working with the engine off

- 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.

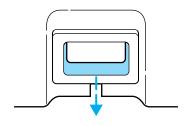
## Working with the engine on

- 1. Set the parking brake and shift to P (Park).
- 2. Block the wheels.

**Note:** Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

## OPENING THE HOOD

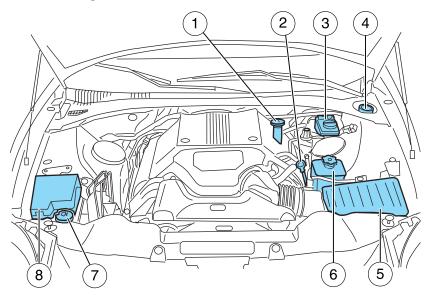
- 1. Inside the vehicle, pull the hood release handle located at the bottom left of the instrument panel.
- 2. Go to the front of the vehicle and release the auxiliary latch that is located under the front center of the hood by pushing the handle toward the passenger side of the vehicle.



3. Lift the hood until the lift cylinders hold it open.

## IDENTIFYING COMPONENTS IN THE ENGINE COMPARTMENT

## 3.9L-4V V8 engine



- 1. Engine oil filler cap
- 2. Engine oil dipstick
- 3. Brake fluid reservoir
- 4. Engine coolant reservoir

- 5. Air filter assembly
- 6. Power steering fluid reservoir
- 7. Windshield washer fluid reservoir
- 8. Power distribution box

#### WINDSHIELD WASHER FLUID



Add fluid to fill the reservoir if the level is low. In very cold weather, do not fill the reservoir completely.

Only use a washer fluid that meets Ford specification WSB-M8B16-A2. Refer to Lubricant specifications in this chapter.



State or local regulations on volatile organic compounds may restrict the use of methanol, a common windshield washer antifreeze additive. Washer fluids containing non-methanol antifreeze agents should be used only if they provide cold weather protection without damaging the vehicle's paint finish, wiper blades or washer system.

If you operate your vehicle in temperatures below 40° F (4.5°C), use washer fluid with antifreeze protection. Failure to use washer fluid with antifreeze protection in cold weather could result in impaired windshield vision and increase the risk of injury or accident.

**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

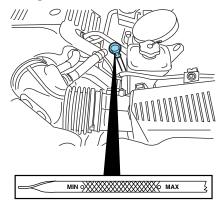


## Checking the engine oil

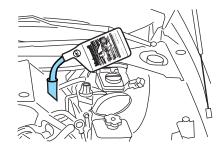
Refer to the scheduled maintenance information for the appropriate intervals for checking the engine oil.

- 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).
- 4. Open the hood. Protect yourself from engine heat.
- 5. Locate and carefully remove the engine oil level indicator (dipstick).



- $6. \ \, \text{Wipe}$  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.



- 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  $\it Checking\ the\ engine\ oil$  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 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 tightly until clicks are heard, or until it is snug.

To avoid possible oil loss, DO NOT operate the vehicle with the engine oil level indicator and/or the engine oil filler cap removed.

## Engine oil and filter recommendations

Look for this certification trademark.



#### Use SAE 5W-20 engine oil.

Only use oils "Certified For Gasoline Engines" by the American Petroleum Institute (API). An oil with this trademark symbol conforms to the current engine and emission system protection standards and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ILSAC), comprised of U.S. and Japanese automobile manufacturers.

To protect your engine's warranty use Motorcraft SAE 5W-20 or an equivalent 5W-20 oil meeting Ford specification WSS-M2C930-A. **SAE 5W-20 oil provides optimum fuel economy and durability** performance meeting all requirements for your vehicle's engine.

Do not use supplemental engine oil additives, cleaners or other engine treatments. They are unnecessary and could lead to engine damage that is not covered by Ford warranty.

Change your engine oil according to the appropriate schedule listed in the *scheduled maintenance information*.

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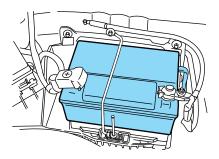
2005 Thunderbird (tbr)
Owners Guide (post-2002-fmt)
USA (fus)

Ford production and aftermarket (Motorcraft) oil filters are designed for added engine protection and long life. If a replacement oil filter is used that does not meet Ford material and design specifications, start-up engine noises or knock may be experienced.

It is recommended you use the appropriate Motorcraft oil filter (or another brand meeting Ford specifications) for your engine application.

## BATTERY [-+

Your vehicle is equipped with a Motorcraft maintenance-free battery which is located in the luggage compartment, next to the spare tire.



Your battery is designed to purge any battery gases to the outside of the vehicle by means of a vent hose. This vent hose MUST be attached at all times. Replacement batteries must be of the same vented design.

# If your battery has a cover/shield, make sure it is reinstalled after the battery has been cleaned or replaced.

Your battery normally does not require additional water during its life of service. For longer, trouble-free operation, keep the top of the battery clean and dry. Make certain that the vent hose is attached. Also, make certain the battery cables are always tightly fastened to the battery terminals.

If you see any corrosion on the battery or terminals, remove the cables from the terminals and clean with a wire brush. You can neutralize the acid with a solution of baking soda and water.

Note: Electrical or electronic accessories or components added to the vehicle by the dealer or the owner may adversely affect battery performance and durability.

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 in P (Park), turn off all accessories and start the engine.
- 3. Run the engine until it reaches normal operating temperature.
- 4. Allow the engine to idle for at least one minute.
- 5. Turn the A/C on and allow the engine to idle for at least one minute.
- 6. Drive the vehicle to complete the relearning process.
- The vehicle may need to be driven to relearn the idle and fuel trim strategy.
- If you do not allow the engine to relearn its idle trim, the idle quality of your vehicle may be adversely affected until the idle trim is eventually relearned.

When the battery is disconnected or a new battery installed, the transmission must relearn its adaptive strategy. As a result of this, the transmission may shift firmly. This operation is considered normal and will not affect function or durability of the transmission. Over time the adaptive learning process will fully update transmission operation to its optimum shift feel.

If the battery has been disconnected or a new battery has been installed, the short drop glass, 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 *scheduled maintenance information*. The coolant concentration should be maintained at 50/50 coolant and distilled water, which equates to a freeze point of -34°F (-36°C). Coolant concentration testing is possible with a hydrometer or antifreeze tester (such as the Rotunda Battery and Antifreeze Tester, 014–R1060). The level of coolant should be maintained at the "FULL COLD" level or within the "COLD FILL RANGE" in the coolant reservoir. If the level falls below, add coolant per the instructions in the *Adding engine coolant* section.

Your vehicle was factory-filled with a 50/50 engine coolant and water concentration. If the concentration of coolant falls below 40% or above 60%, the engine parts could become damaged or not work properly. A 50–50 mixture of coolant and water provides the following:

- Freeze protection down to -34°F (-36°C).
- Boiling protection up to 265°F (129°C).
- Protection against rust and other forms of corrosion.
- Enables calibrated gauges to work properly.

When the engine is cold, check the level of the engine coolant in the reservoir.



- The engine coolant should be at the "FULL COLD" level or within the "COLD FILL RANGE" as listed on the engine coolant reservoir (depending upon application).
- Refer to scheduled maintenance information for service interval schedules.
- Be sure to read and understand *Precautions when servicing your vehicle* in this chapter.

If the engine coolant has not been checked at the recommended interval, the engine coolant reservoir may become low or empty. If the reservoir is low or empty, add engine coolant to the reservoir. Refer to *Adding engine coolant* in this chapter.

**Note:** Automotive fluids are not interchangeable; do not use engine coolant, antifreeze or windshield washer fluid outside of its specified function and vehicle location.

#### Adding engine coolant

When adding coolant, make sure it is a 50/50 mixture of engine coolant and distilled water. Add the mixture to the coolant reservoir, **when the engine is cool**, until the appropriate fill level is obtained.



Do not add engine coolant when the engine is hot. Steam and scalding liquids released from a hot cooling system can burn you badly. Also, you can be burned if you spill coolant on hot engine parts.

Do not put engine coolant in the windshield washer fluid container. If sprayed on the windshield, engine coolant could make it difficult to see through the windshield.

• Add Motorcraft Premium Gold Engine Coolant (yellow-colored), VC-7-A (U.S., except CA, OR and NM), VC-7-B (CA, OR and NM), meeting Ford Specification WSS-M97B51-A1.

**Note:** Use of Motorcraft Cooling System Stop Leak Pellets, VC-6, may darken the color of Motorcraft Premium Gold Engine Coolant from yellow to golden tan.

- Do not add/mix an orange-colored, extended life coolant such as Motorcraft Specialty Orange Engine Coolant, VC-2 and VC-3 (US) or CXC-209 (Canada), meeting Ford specification WSS-M97B44-D with the factory-filled coolant. Mixing Motorcraft Specialty Orange Engine Coolant or any orange-colored extended life product with your factory filled coolant can result in degraded corrosion protection.
- A large amount of water without engine coolant may be added, in case of emergency, to reach a vehicle service location. In this instance, the cooling system must be drained and refilled with a 50/50 mixture of engine coolant and distilled water as soon as possible. Water alone (without engine coolant) can cause engine damage from corrosion, overheating or freezing.
- Do not use alcohol, methanol, brine or any engine coolants mixed with alcohol or methanol antifreeze (coolant). Alcohol and other liquids can cause engine damage from overheating or freezing.
- Do not add extra inhibitors or additives to the coolant. These can be harmful and compromise the corrosion protection of the engine coolant.

For vehicles with overflow coolant systems with a non-pressurized cap on the coolant recovery system, add coolant to the coolant recovery reservoir when the engine is cool. Add the proper mixture of coolant and water to the "FULL COLD" level. For all other vehicles which have a

coolant degas system with a pressurized cap, or if it is necessary to remove the coolant pressure relief cap on the radiator of a vehicle with an overflow system, follow these steps to add engine coolant.

To reduce the risk of personal injury, make sure the engine is cool before unscrewing the coolant pressure relief cap. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly.

- 1. Before you begin, turn the engine off and let it cool.
- 2. When the engine is cool, wrap a thick cloth around the coolant pressure relief cap on the coolant reservoir (a translucent plastic bottle). Slowly turn cap counterclockwise (left) until pressure begins to release.
- 3. Step back while the pressure releases.
- 4. When you are sure that all the pressure has been released, use the cloth to turn it counterclockwise and remove the cap.
- 5. Fill the coolant reservoir slowly with the proper coolant mixture (see above), to within the "COLD FILL RANGE" or the "FULL COLD" level on the reservoir. If you removed the radiator cap in an overflow system, fill the radiator until the coolant is visible and radiator is almost full.
- 6. Replace the cap. Turn until tightly installed. (Cap must be tightly installed to prevent coolant loss.)

After any coolant has been added, check the coolant concentration (refer to *Checking engine coolant*). If the concentration is not 50/50 (protection to  $-34^{\circ}$  F/ $-36^{\circ}$  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 quart (1.0 liter) of engine coolant per month, have your dealer check the engine cooling system. Your cooling system may have a leak. Operating an engine with a low level of coolant can result in engine overheating and possible engine damage.

#### Recycled engine coolant

Ford Motor Company does NOT recommend the use of recycled engine coolant in vehicles originally equipped with Motorcraft Premium Gold Engine Coolant since a Ford-approved recycling process is not yet available.

Used engine coolant should be disposed of in an appropriate manner. Follow your community's regulations and standards for recycling and disposing of automotive fluids.

#### Coolant refill capacity

To find out how much fluid your vehicle's cooling system can hold, refer to *Refill capacities* in this section.

Fill your engine coolant reservoir as outlined in *Adding engine coolant* in this section.

#### Severe climates

If you drive in extremely cold climates (less than -34° F [-36° C]):

- It may be necessary to increase the coolant concentration above 50%.
- NEVER increase the coolant concentration above 60%.
- Increased engine coolant concentrations above 60% will decrease the overheat protection characteristics of the engine coolant and may cause engine damage.
- Refer to the chart on the coolant container to ensure the coolant concentration in your vehicle will provide adequate freeze protection at the temperatures in which you drive in the winter months.

If you drive in extremely hot climates:

- It is still necessary to maintain the coolant concentration above 40%.
- NEVER decrease the coolant concentration below 40%.
- Decreased engine coolant concentrations below 40% will decrease the corrosion protection characteristics of the engine coolant and may cause engine damage.
- Decreased engine coolant concentrations below 40% will decrease the freeze protection characteristics of the engine coolant and may cause engine damage.
- Refer to the chart on the coolant container to ensure the coolant concentration in your vehicle will provide adequate protection at the temperatures in which you drive.

Vehicles driven year-round in non-extreme climates should use a 50/50 mixture of engine coolant and distilled water for optimum cooling system and engine protection.

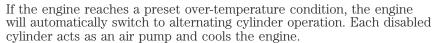
#### What you should know about fail-safe cooling

If the engine coolant supply is depleted, this feature allows the vehicle to be driven temporarily before incremental component damage is incurred. The "fail-safe" distance depends on ambient temperatures, vehicle load and terrain.

#### How fail-safe cooling works

If the engine begins to overheat:

- The engine coolant temperature gauge will move to the H (hot) area.
- The symbol will illuminate.
- The symbol will illuminate.
- The Ty symbol will illuminate.



When this occurs the vehicle will still operate. However:

- The engine power will be limited.
- The air conditioning system will be disabled.

Continued operation will increase the engine temperature and the engine will completely shut down, causing steering and braking effort to increase.

Once the engine temperature cools, the engine can be re-started. Take your vehicle to a service facility as soon as possible to minimize engine damage.

## When fail-safe mode is activated

You have limited engine power when in the fail-safe mode, so drive the vehicle with caution. The vehicle will not be able to maintain high-speed operation and the engine will run rough. Remember that the engine is capable of completely shutting down automatically to prevent engine damage, therefore:

- 1. Pull off the road as soon as safely possible and turn off the engine.
- 2. Arrange for the vehicle to be taken to a service facility.
- 3. If this is not possible, wait a short period for the engine to cool.

4. Check the coolant level and replenish if low.



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

5. Re-start the engine and take your vehicle to a service facility.

Driving the vehicle without repairing the engine problem increases the chance of engine damage. Take your vehicle to a service facility as soon as possible.

## WHAT YOU SHOULD KNOW ABOUT AUTOMOTIVE FUELS



## Important safety precautions



Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

The fuel system may be under pressure. If the fuel filler cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the fuel filler cap. Otherwise, fuel may spray out and injure you or others.

If you do not use the proper fuel filler cap, excessive pressure or vacuum in the fuel tank may damage the fuel system or cause the fuel cap to disengage in a collision, which may result in possible personal injury.



Automotive fuels can cause serious injury or death if misused or mishandled.



Gasoline may contain benzene, which is a cancer-causing agent.

Observe the following guidelines when handling automotive fuel:

- Extinguish all smoking materials and any open flames before refueling your vehicle.
- Always turn off the vehicle before refueling.



- Automotive fuels can be harmful or fatal if swallowed. Fuel such as gasoline is highly toxic and if swallowed can cause death or permanent injury. If fuel is swallowed, call a physician immediately, even if no symptoms are immediately apparent. The toxic effects of fuel may not be visible for hours.
- Avoid inhaling fuel vapors. Inhaling too much fuel vapor of any kind can lead to eye and respiratory tract irritation. In severe cases, excessive or prolonged breathing of fuel vapor can cause serious illness and permanent injury.
- Avoid getting fuel liquid in your eyes. If fuel is splashed in the eyes, remove contact lenses (if worn), flush with water for 15 minutes and seek medical attention. Failure to seek proper medical attention could lead to permanent injury.
- Fuels can also be harmful if absorbed through the skin. If fuel is splashed on the skin and/or clothing, promptly remove contaminated clothing and wash skin thoroughly with soap and water. Repeated or prolonged skin contact with fuel liquid or vapor causes skin irritation.
- Be particularly careful if you are taking "Antabuse" or other forms of disulfiram for the treatment of alcoholism. Breathing gasoline vapors, or skin contact could cause an adverse reaction. In sensitive individuals, serious personal injury or sickness may result. If fuel is splashed on the skin, promptly wash skin thoroughly with soap and water. Consult a physician immediately if you experience an adverse reaction.

When refueling always shut the engine off and never allow sparks or open flames near the filler neck. Never smoke while refueling. Fuel vapor is extremely hazardous under certain conditions. Care should be taken to avoid inhaling excess fumes.

The flow of fuel through a fuel pump nozzle can produce static electricity, which can cause a fire if fuel is pumped into an ungrounded fuel container.

## Refueling



Fuel vapor burns violently and a fuel fire can cause severe injuries. To help avoid injuries to you and others:

- Read and follow all the instructions on the pump island;
- Turn off your engine when you are refueling:
- Do not smoke if you are near fuel or refueling your vehicle;
- Keep sparks, flames and smoking materials away from fuel;
- Stay outside your vehicle and do not leave the fuel pump unattended when refueling your vehicle — this is against the law in some places;
- Keep children away from the fuel pump; never let children pump fuel

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
- 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

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.

If the "Check Fuel Cap" indicator comes on and stays on after you start the engine, the fuel filler cap may not be properly installed. Turn off the engine, remove the fuel filler cap, align the cap properly and reinstall it.

If you must replace the fuel filler cap, replace it with a fuel filler cap that is designed for your vehicle. The customer warranty may be void for any damage to the fuel tank or fuel system if the correct genuine Ford or Motorcraft fuel filler cap is not used.

The fuel system may be under pressure. If the fuel filler cap is venting vapor or if you hear a hissing sound, wait until it stops before completely removing the fuel filler cap. Otherwise, fuel may spray out and injure you or others.

If you do not use the proper fuel filler cap, excessive pressure or vacuum in the fuel tank may damage the fuel system or cause the fuel cap to disengage in a collision, which may result in possible personal injury.

#### Choosing the right fuel

Use only UNLEADED FUEL. The use of leaded fuel is prohibited by law and could damage your vehicle.

Your vehicle was not designed to use fuel or fuel additives with metallic compounds, including manganese-based additives. Studies indicate that these additives can cause your vehicle's emission control system to deteriorate more rapidly. In Canada, premium grade fuel generally contains more metallic additives than regular fuel. We recommend using regular grade fuel. In Canada, many fuels contain metallic additives, but fuels free of such additives may be available; check with your local fuel dealer.

Do not use fuel containing methanol. It can damage critical fuel system components.

Repairs to correct the effects of using a fuel for which your vehicle was not designed may not be covered by your warranty.

#### Octane recommendations

Your vehicle is designed to use "Premium" unleaded gasoline with an (R+M)/2 octane rating of 91 or higher for optimum performance. The use of gasolines with lower



octane ratings may degrade performance. We do not recommend the use of gasolines labeled as "Premium" in high altitude areas that are sold with octane ratings of less than 91.

Do not be concerned if your engine sometimes knocks lightly. However, if it knocks heavily under most driving conditions while you are using fuel with the recommended octane rating, see your dealer or a qualified service technician to prevent any engine damage.

#### **Fuel quality**

If you are experiencing starting, rough idle or hesitation driveability problems during a cold start, try a different brand of "Premium" unleaded gasoline. If the problems persist, see your dealer or a qualified service technician.

It should not be necessary to add any aftermarket products to your fuel tank if you continue to use high quality fuel of the recommended octane rating. Aftermarket products could cause damage to the fuel system. Repairs to correct the effects of using an aftermarket product in your fuel may not be covered by your warranty.

Many of the world's automakers approved the World-wide Fuel Charter that recommends gasoline specifications to provide improved performance and emission control system protection for your vehicle. Gasolines that meet the World-wide Fuel Charter should be used when available. Ask your fuel supplier about gasolines that meet the World-wide Fuel Charter.

#### 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 *scheduled maintenance information* for the appropriate intervals for changing the fuel filter.

Replace the fuel filter with an authorized Motorcraft part. The customer warranty may be void for any damage to the fuel system if an authorized Motorcraft fuel filter is not used.

#### **ESSENTIALS OF GOOD FUEL ECONOMY**

## Measuring techniques

Your best source of information about actual fuel economy is you, the driver. You must gather information as accurately and consistently as possible. Fuel expense, frequency of fill-ups or fuel gauge readings are NOT accurate as a measure of fuel economy. We do not recommend taking fuel economy measurements during the first 1,000 miles (1,600 km) of driving (engine break-in period). You will get a more accurate measurement after 2,000 miles-3,000 miles (3,000 km-5,000 km).

#### Filling the tank

The advertised fuel capacity of the fuel tank on your vehicle is equal to the rated refill capacity of the fuel tank as listed in the *Refill capacities* section of this chapter.

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 two automatic click-offs when filling.
- Always use fuel with the recommended octane rating.
- Use a known quality gasoline, preferably a national brand.
- Use the same side of the same pump and have the vehicle facing the same direction each time you fill up.

• Have the vehicle loading and distribution the same every time. Your results will be most accurate if your filling method is consistent.

#### Calculating fuel economy

- 1. Fill the fuel tank completely and record the initial odometer reading (in miles or kilometers).
- 2. Each time you fill the tank, record the amount of fuel added (in gallons or liters).
- 3. After at least three to five tank fill-ups, fill the fuel tank and record the current odometer reading.
- 4. Subtract your initial odometer reading from the current odometer reading.
- 5. Follow one of the simple calculations in order to determine fuel economy:

Calculation 1: Divide total miles traveled by total gallons used.
Calculation 2: Multiply liters used by 100, then divide by total kilometers traveled.

Keep a record for at least one month and record the type of driving (city or highway). This will provide an accurate estimate of the vehicle's fuel economy under current driving conditions. Additionally, keeping records during summer and winter will show how temperature impacts fuel economy. In general, lower temperatures give lower fuel economy.

## Driving style — good driving and fuel economy habits

Give consideration to the lists that follow and you may be able to change a number of variables and improve your fuel economy.

#### **Habits**

- Smooth, moderate operation can yield up to 10% savings in fuel.
- Steady speeds without stopping will usually give the best fuel economy.
- Idling for long periods of time (greater than one minute) may waste fuel.
- Anticipate stopping; slowing down may eliminate the need to stop.
- Sudden or hard accelerations may reduce fuel economy.
- Slow down gradually.
- Driving at reasonable speeds (traveling at 55 mph [88 km/h] uses 15% less fuel than traveling at 65 mph [105 km/h]).

- Revving the engine before turning it off may reduce fuel economy.
- Using the air conditioner or defroster may reduce fuel economy.
- You may want to turn off the speed control in hilly terrain if unnecessary shifting between fourth and fifth 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 *scheduled maintenance information*.

#### **Conditions**

- Heavily loading a vehicle or towing a trailer may reduce fuel economy at any speed.
- Carrying unnecessary weight may reduce fuel economy (approximately 1 mpg [0.4 km/L] is lost for every 400 lb [180 kg] of weight carried).
- Adding certain accessories to your vehicle (for example bug deflectors, rollbars/light bars, running boards, ski/luggage racks) may reduce fuel economy.
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures during the first 8–10 miles (12–16 km) of driving.
- Driving on flat terrain offers improved fuel economy as compared to driving on hilly terrain.
- Transmissions give their best fuel economy when operated in the top cruise gear and with steady pressure on the gas pedal.

- Four-wheel-drive operation (if equipped) is less fuel efficient than two-wheel-drive operation.
- Close windows for high speed driving.

#### **EPA** window sticker

Every new vehicle should have the EPA window sticker. Contact your dealer if the window sticker is not supplied with your vehicle. The EPA window sticker should be your guide for the fuel economy comparisons with other vehicles.

It is important to note the box in the lower left corner of the window sticker. These numbers represent the Range of MPG (L/100 km) expected on the vehicle under optimum conditions. Your fuel economy may vary depending upon the method of operation and conditions.

## EMISSION CONTROL SYSTEM

Your vehicle is equipped with various emission control components and a catalytic converter which will enable your vehicle to comply with applicable exhaust emission standards. To make sure that the catalytic converter and other emission control components continue to work properly:

- 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 *scheduled maintenance information* performed according to the specified schedule.

The scheduled maintenance items listed in *scheduled maintenance* information are essential to the life and performance of your vehicle and to its emissions system.

If other than Ford, Motorcraft or Ford-authorized parts are used for maintenance replacements or for service of components affecting emission control, such non-Ford parts should be equivalent to genuine Ford Motor Company parts in performance and durability.

Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

Illumination of the "Check Engine" light, charging system warning light or the temperature warning light, fluid leaks, strange odors, smoke or loss of engine power, could indicate that the emission control system is not working properly.



Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment.

Do not make any unauthorized changes to your vehicle or engine. By law, vehicle owners and anyone who manufactures, repairs, services, sells, leases, trades vehicles, or supervises a fleet of vehicles are not permitted to intentionally remove an emission control device or prevent it from working. Information about your vehicle's emission system is on the Vehicle Emission Control Information Decal located on or near the engine. This decal identifies engine displacement and gives some tune up specifications.

Please consult your Warranty Guide for complete emission warranty information.

#### On board diagnostics (OBD-II)

Your vehicle is equipped with a computer that monitors the engine's emission control system. This system is commonly known as the On Board Diagnostics System (OBD-II). This OBD-II system protects the environment by ensuring that your vehicle continues to meet government emission standards. The OBD-II system also assists the service technician in properly servicing your vehicle. When the *Check engine/Service engine soon* light illuminates, the OBD-II system has detected a malfunction. Temporary malfunctions may cause your *Check engine/Service engine soon* light to illuminate. Examples are:

- 1. The vehicle has run out of fuel. (The engine may misfire or run poorly.)
- 2. Poor fuel quality or water in the fuel.
- 3. The fuel cap may not have been securely tightened. See  $Fuel \ filler \ cap$  in this chapter.

These temporary malfunctions can be corrected by filling the fuel tank with good quality fuel and/or properly tightening the fuel cap. After three driving cycles without these or any other temporary malfunctions present, the *Check engine/Service engine soon* light should turn off. (A driving cycle consists of a cold engine startup followed by mixed city/highway driving.) No additional vehicle service is required.

If the *Check engine/Service engine soon* light remains on, have your vehicle serviced at the first available opportunity.

#### Readiness for Inspection/Maintenance (I/M) testing

In some localities, it may be a legal requirement to pass an I/M test of the on-board diagnostics system. If your *Check engine/Service engine* 

soon light is on, refer to the description in the Warning lights and chimes section of the Instrument Cluster chapter. Your vehicle may not pass the I/M test with the Check engine/Service engine soon light on.

If the vehicle's powertrain system or its battery has just been serviced, the on-board diagnostics system is reset to a "not ready for I/M test" condition. To ready the on-board diagnostics system for I/M testing, a minimum of 30 minutes of city and highway driving is necessary as described below:

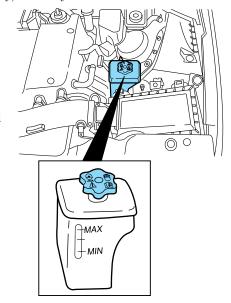
- First, at least 10 minutes of driving on an expressway or highway.
- Next, at least 20 minutes driving in stop-and-go, city-type traffic with at least four idle periods.

Allow the vehicle to sit for at least eight hours without starting the engine. Then, start the engine and complete the above driving cycle. The engine must warm up to its normal operating temperature. Once started, do not turn off the engine until the above driving cycle is complete.

#### **POWER STEERING FLUID**

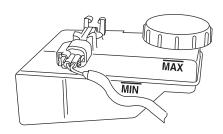
Refer to the scheduled maintenance guide for the service interval schedules. If adding fluid is necessary, use only MERCON® ATF.

- 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. Check the fluid level in the reservoir. It should be between the MIN and MAX lines. Do not add fluid if the level is in this range.
- 5. If the fluid is low, add fluid in small amounts, continuously checking the level until it reaches the range between the MIN and MAX lines. Be sure to put the cap back on the reservoir.



## BRAKE FLUID (🔘

The fluid level will drop slowly as the brakes wear, and will rise when the brake components are replaced. Fluid levels between the "MIN" and "MAX" lines are within the normal operating range; there is no need to add fluid. If the fluid levels are outside of the normal operating range the performance of your brake system could be compromised; seek service from your dealer immediately.



#### TRANSMISSION FLUID

## Checking automatic transmission fluid

The 5R55S transmission does not have a transmission fluid dipstick.

Refer to your *scheduled maintenance information* 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.

# Transmission fluid should be checked and, if required, fluid should be added by a qualified technician.

Before adding any fluid, make sure the correct type is used. Use only MERCON® V automatic transmission fluid. The type of fluid used is indicated on the transmission fluid pan, extension housing and also in the *Lubricant specifications* section in this chapter.

# Use of a non-approved automatic transmission fluid may cause internal transmission component damage and void the warranty.

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.

#### **AIR FILTER**

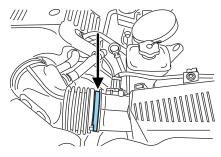
Refer to scheduled maintenance information for the appropriate intervals for changing the air filter element.

When changing the air filter element, use only the Motorcraft air filter element listed. Refer to *Motorcraft part numbers* in this chapter.

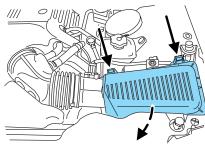
**Note:** Do not start your engine with the air cleaner removed and do not remove it while the engine is running.

#### Air filter

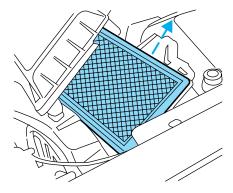
1. Loosen the hose clamp on the outlet tube at the air filter housing.



2. Release the two clamps that secure the cover to the air filter housing and place the cover aside.

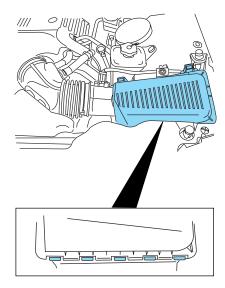


3. Remove the air filter element from the air filter housing.



4. Wipe the air filter housing and cover clean to remove any dirt or debris and to ensure good sealing.

- 5. Install a new air filter element. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unmetered air to enter the engine if not properly seated
- 6. Replace the air filter housing cover and secure the clamps. Be sure all of the tabs on front edge are correctly aligned as shown.



**Note:** If you encounter any difficulty in replacing your air filter element, have your vehicle serviced at your local dealer.

#### **MOTORCRAFT PART NUMBERS**

Component	3.9L-4V V8 engine
Air filter element	FA-1679
Fuel filter	FG-1011
Battery	BXT-66-650
Oil filter	FL-218
PCV valve	1
Spark plugs	2

<sup>&</sup>lt;sup>1</sup>The PCV valve is a critical emission component. It is one of the items listed in the *scheduled maintenance information* and is essential to the life and performance of your vehicle and to its emissions system.

For PCV valve replacement, see your dealer or a qualified service technician. Refer to the *scheduled maintenance information* for the appropriate intervals for changing the PCV valve.

Replace the PCV valve with one that meets Ford material and design specifications for your vehicle, such as a Motorcraft or equivalent replacement part. The customer warranty may be void for any damage to the emissions system if such a PCV valve is not used

<sup>2</sup>For spark plug replacement, see your dealer or a qualified service technician. Refer to the *scheduled maintenance information* for the appropriate intervals for changing the spark plugs.

Replace the spark plugs with ones that meet Ford material and design specifications for your vehicle, such as Motorcraft or equivalent replacement parts. The customer warranty may be void for any damage to the engine if such spark plugs are not used.

#### REFILL CAPACITIES

Fluid	Ford Part Name	Application	Capacity
Brake fluid	Motorcraft High Performance DOT 3 Motor Vehicle Brake Fluid <sup>1</sup>	All	Fill to MAX line on reservoir
Engine oil (includes filter change) <sup>6</sup>	Motorcraft SAE 5W-20 Premium Synthetic Blend Motor Oil (US) Motorcraft SAE 5W-20 Super Premium Motor Oil (Canada)	3.9L-4V V8 engine	6.5 quarts (6.2L)
Engine coolant <sup>2</sup>	Motorcraft Premium Gold Engine Coolant (yellow-colored)	3.9L-4V V8 engine	11.9 quarts (11.3L)

Fluid	Ford Part Name	Application	Capacity
Power steering fluid	Motorcraft MERCON® ATF	All	Fill to MAX line on reservoir
Rear axle <sup>3</sup>	Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant	All	2.5–2.7 pints (1.2–1.3L)
Fuel tank	N/A	All	18.5 gallons (70.0L)
Transmission fluid <sup>4</sup>	Motorcraft MERCON®V ATF	Automatic (5R55S)	11.9 quarts (11.2L) <sup>5</sup>
Windshield washer fluid	Motorcraft Premium Windshield Washer Concentrate	All	Fill to line on reservoir

<sup>&</sup>lt;sup>1</sup>Use only brake fluids certified to meet Ford specifications. Refer to *Lubricant Specifications* in this chapter. DOT 3 fluid is recommended. However, if DOT 3 is not available, DOT 4 fluid can be used.

<sup>&</sup>lt;sup>2</sup>Add the coolant type originally equipped in your vehicle.

<sup>&</sup>lt;sup>3</sup>Your vehicle's rear axle is filled with a synthetic rear axle lubricant and is considered lubricated for life. These lubricants do not need to be checked or changed unless a leak is suspected, service is required or the axle assembly has been submerged in water. The axle lubricant should be changed any time the rear axle has been submerged in water. Fill 1/4 inch to 9/16 inch (6 mm to 14 mm) below bottom of fill hole.

<sup>&</sup>lt;sup>4</sup>Ensure the correct automatic transmission fluid is used. MERCON® and MERCON® V are not interchangeable. DO NOT MIX MERCON® and MERCON® V. Refer to the *scheduled maintenance information* to determine the correct service interval.

<sup>&</sup>lt;sup>5</sup>Approximate dry capacity, includes cooler and tubes. Fluid level should be checked by a qualified service technician.

<sup>&</sup>lt;sup>6</sup>Use of synthetic or synthetic blend motor oil is not mandatory. Engine oil need only meet the requirements of Ford specification WSS-M2C930-A and the API Certification mark.

## **LUBRICANT SPECIFICATIONS**

Item	Ford part	Ford part	Ford
	name	number	specification
Brake fluid	Motorcraft High Performance DOT 3 Motor Vehicle Brake Fluid <sup>1</sup>	PM-1	ESA-M6C25-A and DOT 3
Door weatherstrips	Silicone Lubricant	XL-6	ESR-M13P4-A
Door latch, hood latch, auxiliary hood latch, door hinges, striker plates, seat tracks and fuel filler door hinge	Multi-Purpose Grease	XL-4 or XL-5	ESB-M1C93-B or ESR-M1C159-A
Engine coolant	Motorcraft Premium Gold Engine Coolant (yellow-colored)	VC-7-A (U.S., except CA, OR and NM), VC-7-B (CA, OR and NM)	WSS-M97B51-A1
Engine oil	Motorcraft SAE 5W-20 Premium Synthetic Blend Motor Oil (US) Motorcraft SAE 5W-20 Super Premium Motor Oil (Canada)	XO-5W20-QSP (US) CXO-5W20–LSP12 (Canada)	WSS-M2C930-A with API Certification Mark
Lock cylinders	Motorcraft Penetrating and Lock Lubricant	XL-1	none

Item	Ford part	Ford part number	Ford specification
Power steering fluid	Motorcraft MERCON® ATF	XT-2-QDX	MERCON®
Rear Axle Lubricant	Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant <sup>2</sup>	XY-75W140-QL	WSL-M2C192-A
Automatic transmission fluid	Motorcraft MERCON®V ATF <sup>3</sup>	XT-5-QM	MERCON®V
Windshield washer fluid	Motorcraft Premium Windshield Washer Concentrate	ZC-32-A	WSB-M8B16-A2

<sup>&</sup>lt;sup>1</sup>Use only brake fluids certified to meet Ford specifications. DOT 3 fluid is recommended. However, if DOT 3 is not available, DOT 4 fluid can be used

<sup>&</sup>lt;sup>2</sup>Ford design rear axles contain a synthetic lubricant that does not require changing unless the axle has been submerged in water.

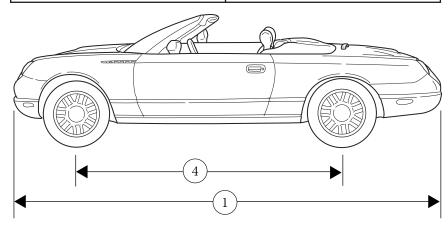
<sup>&</sup>lt;sup>3</sup>Ensure the correct automatic transmission fluid is used. MERCON® and MERCON® V are not interchangeable. DO NOT MIX MERCON® and MERCON® V. Refer to the *scheduled maintenance information* to determine the correct service interval.

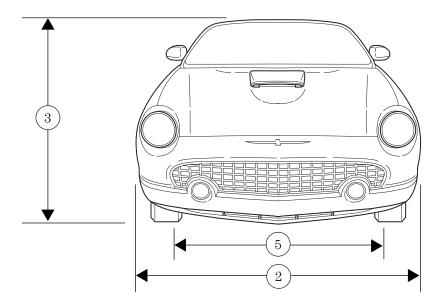
## **ENGINE DATA**

Engine	3.9L-4V V8 engine
Displacement	241 cid (3 949 cc)
Required fuel	91 octane
Firing order	1-5-4-2-6-3-7-8
Ignition system	Coil on plug
Spark plug gap	0.040-0.044 inch (1.1-1.2mm)
Compression ratio	10.75:1

## **VEHICLE DIMENSIONS**

Vehicle dimensions	Inches (mm)
(1) Overall length	186.3 (4732.6)
(2) Overall width (at mirrors)	79.7 (2023.7)
(3) Overall height	52.5 (1334.7)
(4) Wheelbase	107.2 (2724)
(5) Track - Front	60.5 (1537)
(5) Track - Rear	60.2 (1529)





## **IDENTIFYING YOUR VEHICLE**

## **Certification label**

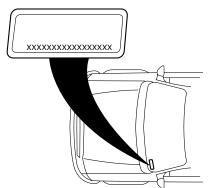
The National Highway Traffic Safety Administration Regulations require that a Certification label be affixed to a vehicle and prescribe where the Certification label may be located. The Certification label is located on the structure by the trailing edge of the driver's door or the edge of the driver's door.

# MFD. BY FORD MOTOR CO. IN U.S.A. DATE: XXXXX GVWR:XXXXXXXXXXXX FRONT GAWR: XXXXXXXXXXXX REAR GAWR: XXXXXXXXXXXXX THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE. VIN: XXXXXXXXXXXXXXXXXXXX TYPE: XXXXXXXXXXXXXXXXXXXX EXT PNT: XXXXXXXXXXXXXXXXX BAR INTTR ITPIPS IR IAXLE ITR ISPR X XX XXX X XX X XX XXXXX UPC VF85B-1520472-AB

### **Maintenance and Specifications**

#### Vehicle identification number (VIN)

The vehicle identification number is attached to a metal tag and is located on the driver side instrument panel. (Please note that in the graphic XXXX is representative of your vehicle identification number.)



The vehicle identification number (VIN) contains the following information:

- 1. World manufacturer identifier
- 2. Brake type and gross vehicle weight rating (GVWR)
- 3. Vehicle line, series, body type
- 4. Engine type
- 5. Check digit
- 6. Model year
- 7. Assembly plant
- 8. Production sequence number

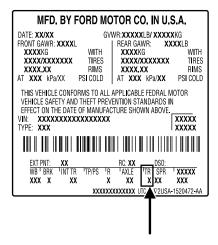
# 

#### **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).

# **Maintenance and Specifications**

#### Transmission/Transaxle code designations



You can find a transmission/transaxle code on the vehicle certification label. The following table tells you which transmission or transaxle each code represents.

Code	Description
A	Five-speed automatic (5R55S)
S	Five-speed automatic (5R55S) with Select Shift

#### **Accessories**

#### **GENUINE FORD ACCESSORIES FOR YOUR VEHICLE**

A wide selection of Genuine Ford Accessories are available for your vehicle through your local authorized Ford or Ford of Canada dealer. These quality accessories have been specifically engineered to fulfill your automotive needs; they are custom designed to complement the style and aerodynamic appearance of your vehicle. In addition, each accessory is made from high quality materials and meets or exceeds Ford's rigorous engineering and safety specifications. Ford Motor Company will repair or replace any properly dealer-installed Genuine Ford Accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessory. The accessory will be warranted for whichever provides you the greatest benefit:

- 12 months or 12,000 miles (20,000 km) (whichever occurs first), or
- the remainder of your new vehicle limited warranty.

This means that Genuine Ford Accessories purchased along with your new vehicle and installed by the dealer are covered for the full length of your New Vehicle's Limited Warranty — 3 years or 36,000 miles (60,000 km) (whichever occurs first). Contact your dealer for details and a copy of the warranty.

#### Not all accessories are available for all models.

The following is a list of several Genuine Ford Accessory products for your vehicle. Not all accessories are available for all models. For a complete listing of the accessories that are available for your vehicle, please contact your dealer or visit our online store at: www.fordaccessoriesstore.com.

#### **Exterior style**

Bug shields

Deflectors

Front end covers

Grille inserts

Headlamps, fog lights and Daytime Running Lamps (DRLs)

Splash guards

Wheels

#### Interior style

Electrochromatic compass/temperature interior mirrors

Floor mats

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#### **Accessories**

#### Lifestyle

Cargo organization and management

#### Peace of mind

First aid and safety kits Full vehicle covers

Locking gas cap

Remote start

Vehicle security systems

Mobile-ease hands-free communication system

For maximum vehicle performance, keep the following information in mind when adding accessories or equipment to your vehicle:

- When adding accessories, equipment, passengers and luggage to your vehicle, do not exceed the total weight capacity of the vehicle or of the front or rear axle (GVWR or GAWR as indicated on the Safety Compliance Certification label). Consult your dealer for specific weight information.
- The Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulate the use of mobile communications systems such as two-way radios, telephones and theft alarms that are equipped with radio transmitters. Any such equipment installed in your vehicle should comply with FCC or CRTC regulations and should be installed only by a qualified service technician.
- Mobile communications systems may harm the operation of your vehicle, particularly if they are not properly designed for automotive use.
- To avoid interference with other vehicle functions, such as anti-lock braking systems, amateur radio users who install radios and antennas onto their vehicle should not locate the Amateur Radio Antennas in the area of the driver's side hood.
- Electrical or electronic accessories or components that are added to the vehicle by the dealer or the owner may adversely affect battery performance and durability.

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