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2016 MKS Owner's Manual

2016 MKS

Owner's Manual

THE LINCOLN MOTOR COMPANY

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ABOUT THIS MANUAL

Thank you for choosing Lincoln. We recommend that you take some time to get to know your vehicle by reading this manual. The more that you know about it, the greater the safety and pleasure you will get from driving it.

WARNING

Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any handheld device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Note: *This manual describes product features and options available throughout the range of available models, sometimes even before they are generally available. It may describe options not fitted to your vehicle.*

Note: *Some of the illustrations in this manual may show features as used in different models, so may appear different to you on your vehicle.*

Note: *Always use and operate your vehicle in line with all applicable laws and regulations.*

Note: *Pass on this manual when selling your vehicle. It is an integral part of the vehicle.*

This manual may qualify the location of a component as left-hand side or right-hand side. The side is determined when facing forward in the seat.

E154903

A Right-hand side
B Left-hand side

Protecting the Environment

You must play your part in protecting the environment. Correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials are significant steps toward this aim.

SYMBOLS GLOSSARY

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

Safety alert

See Owner's Manual

Air conditioning system

Anti-lock braking system

Avoid smoking, flames or sparks

Battery

Battery acid

Brake fluid - non petroleum based

Brake system

Cabin air filter

Check fuel cap

Child safety door lock or unlock

Child seat lower anchor

Child seat tether anchor

Cruise control

Do not open when hot

Engine air filter

Engine coolant

Engine coolant temperature

Engine oil

Explosive gas

Fan warning

Fasten seatbelt

Front airbag

Front fog lamps

Fuel pump reset

Fuse compartment

Hazard warning flashers

Heated rear window

Heated windshield

Interior luggage compartment release

Jack

Keep out of reach of children

Lighting control

Low tire pressure warning

Maintain correct fluid level

Note operating instructions

Panic alarm

Parking aid

Parking brake

Power steering fluid

Power windows front/rear

Power window lockout

Service engine soon

Side airbag

Shield the eyes

Stability control

Windshield wash and wipe

DATA RECORDING

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 or share among them vehicle diagnostic information received through a direct connection to your vehicle when diagnosing or servicing your vehicle. Additionally, when your vehicle is in for service or repair, Ford Motor Company, Ford of Canada, and service and repair facilities may access or share among them data for vehicle improvement purposes. For U.S. only (if equipped), if you choose to use the SYNC Vehicle Health Report, you consent that certain diagnostic information may also be accessed electronically by Ford Motor Company and Ford authorized service facilities, and that the diagnostic information may be used for any purpose.

Event Data Recording

This vehicle is equipped with an event data recorder. The main purpose of an event data recorder is to record, in certain crash or near crash-like situations, such as an airbag deployment or hitting a road obstacle; this data will assist in understanding how a vehicle's systems performed. The event data recorder is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less.

The event data recorder in this vehicle is designed to record such data as:

- **How various systems in your vehicle were operating;**
- **Whether or not the driver and passenger safety belts were buckled/fastened;**
- **How far (if at all) the driver was depressing the accelerator and/or the brake pedal; and**

- **How fast the vehicle was traveling; and**
- **Where the driver was positioning the steering wheel.**

This data can help provide a better understanding of the circumstances in which crashes and injuries occur.

Note: ***Event data recorder data is recorded by your vehicle only if a non-trivial crash situation occurs; no data is recorded by the event data recorder under normal driving conditions and no personal data or information (e.g., name, gender, age, and crash location) is recorded (see limitations regarding 911 Assist and Traffic, directions and Information privacy below). However, parties, such as law enforcement, could combine the event data recorder data with the type of personally identifying data routinely acquired during a crash investigation.***

To read data recorded by an event data recorder, special equipment is required, and access to the vehicle or the event data recorder is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have such special equipment, can read the information if they have access to the vehicle or the event data recorder. 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.

Note: ***Including to the extent that any law pertaining to Event Data Recorders applies to SYNC or its features, please note the following: Once 911 Assist (if equipped) is enabled (set ON), 911 Assist may, through any paired and connected cell phone, disclose to emergency services that the vehicle has been in a crash involving the deployment of an airbag or, in certain vehicles, the activation of the fuel pump shut-off. Certain versions or updates to 911 Assist may also be capable of being used to electronically or verbally provide to 911 operators the vehicle location (such as latitude and longitude), and/or other details about the vehicle or crash or personal information about the occupants to assist 911 operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not activate the 911 Assist feature.***

Additionally, when you connect to Traffic, Directions and Information (if equipped, U.S. only), the service uses GPS technology and advanced vehicle sensors to collect the vehicle's current location, travel direction, and speed ("vehicle travel information"), only to help provide you with the directions, traffic reports, or business searches that you request. If you do not want Ford or its vendors to receive this information, do not activate the service. For more information, see Traffic, Directions and Information, Terms and Conditions.

CALIFORNIA PROPOSITION 65

WARNINGS

Some constituents of engine exhaust, certain vehicle components, 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.

WARNINGS

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash your hands after handling.

PERCHLORATE

Certain components in your vehicle such as airbag modules, safety belt pretensioners and remote control batteries may contain perchlorate material. Special handling may apply for service or vehicle end of life disposal.

For more information visit:

Web Address
www.dtsc.ca.gov/hazardouswaste/perchlorate

LINCOLN AUTOMOTIVE FINANCIAL SERVICES

Lincoln Automotive Financial Services offers a full range of financing and lease plans to help you acquire your vehicle. We are dedicated to providing answers, information and a truly extraordinary experience.

Use the options below to contact us with questions about your account or financing and we will respond promptly:

Web Address
www.LincolnAFS.com

Phone: 1-888-498-8801

Mail: Lincoln Automotive Financial Services

P.O. Box 542000

Omaha, NE 68154-8000

REPLACEMENT PARTS RECOMMENDATION

Your vehicle has been built to the highest standards using quality parts. We recommend that you demand the use of genuine Ford and Motorcraft parts whenever your vehicle requires scheduled maintenance or repair. You can clearly identify genuine Ford and Motorcraft parts by looking for the Ford, FoMoCo or Motorcraft branding on the parts or their packaging.

Scheduled Maintenance and Mechanical Repairs

One of the best ways for you to make sure that your vehicle provides years of service is to have it maintained in line with our recommendations using parts that conform to the specifications detailed in this Owner's Manual. Genuine Ford and Motorcraft parts meet or exceed these specifications.

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Collision Repairs

We hope that you never experience a collision, but accidents do happen. Genuine Ford replacement collision parts meet our stringent requirements for fit, finish, structural integrity, corrosion protection and dent resistance. During vehicle development we validate these parts deliver the intended level of protection as a whole system. A great way to know for sure you are getting this level of protection is to use genuine Ford replacement collision parts.

Warranty on Replacement Parts

Genuine Ford and Motorcraft replacement parts are the only replacement parts that benefit from a Lincoln Warranty. Damage caused to your vehicle as a result of the failure of non-Ford parts may not be covered by the Lincoln Warranty. For additional information, refer to the terms and conditions of the Lincoln Warranty.

SPECIAL NOTICES

New Vehicle Limited Warranty

For a detailed description of what is covered and what is not covered by your vehicle's New Vehicle Limited Warranty, refer to the Warranty Manual that is provided to you along with your Owner's Manual.

Special Instructions

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

WARNINGS

You risk death or serious injury to yourself and others if you do not follow the instruction highlighted by the warning symbol. 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 airbag.

On-board Diagnostics (OBD-II)

Your vehicle's On-board Diagnostics (OBD-II) system has a data port for diagnostics, repair and reprogramming services with diagnostic scan tools. Installing a non-Ford-approved aftermarket OBD plug-in device that uses the port during normal driving, for example remote insurance company monitoring, remote vehicle diagnostics, telematics or engine reprogramming, may cause interference or damage to vehicle systems. We do not recommend or endorse the use of any non-Ford-approved aftermarket OBD plug-in devices. The vehicle Warranty may not cover damage caused by any non-Ford-approved aftermarket OBD plug-in device.

MOBILE COMMUNICATIONS EQUIPMENT

Using mobile communications equipment is becoming increasingly important in the conduct of business and personal affairs. However, you must not compromise your 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

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using mobile communications equipment to avoid negating these benefits. Mobile communication equipment includes, but is not limited to, cellular phones, pagers, portable email devices, text messaging devices and portable two-way radios.

WARNING

Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

EXPORT UNIQUE OPTIONS

For your particular global region, your vehicle may be equipped with features and options that are different from the features and options that are described in this Owner's Manual. A market unique supplement may be supplied that complements this book. By referring to the market unique supplement, if provided, you can properly identify those features, recommendations and specifications that are unique to your vehicle. This Owner's Manual is written primarily for the U.S. and Canadian Markets. Features or equipment listed as standard may be different on units built for Export. **Refer to this Owner's Manual for all other required information and warnings.**

PROTECTING THE ENVIRONMENT

You must play your part in protecting the environment. Correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials are significant steps toward this aim.

GENERAL INFORMATION

See the following sections for directions on how to properly use safety restraints for children.

WARNINGS

Always make sure your child is secured properly in a device that is appropriate for their height, age and weight. Child safety restraints must be bought separately from your vehicle. Failure to follow these instructions and guidelines may result in an increased risk of serious injury or death to your child.

WARNINGS

All children are shaped differently. The recommendations for safety restraints are based on probable child height, age and weight thresholds from the National Highway Traffic Safety Administration and other safety organizations, or are the minimum requirements of law. We recommend checking with a NHTSA Certified Child Passenger Safety Technician (CPST) and consult your pediatrician to make sure your child seat is appropriate for your child, and is compatible with and properly installed in your vehicle. To locate a child seat fitting station and CPST, contact NHTSA toll free at 1-888-327-4236 or go to http://www.nhtsa.dot.gov. In Canada,

WARNINGS

contact Transport Canada toll free at 1-800-333-0371 or go to www.tc.gc.ca to find a Child Car Seat Clinic in your area. Failure to properly restrain children in safety seats made especially for their height, age, and weight may result in an increased risk of serious injury or death to your child.

Do not leave children or animals unattended in the vehicle. 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.

Recommendations for Safety Restraints for Children

Child	Child size, height, weight, or age	Recommended restraint type
Infants or toddlers	Children weighing 40 lb (18 kg) or less (generally age four or younger).	Use a child safety seat (sometimes called an infant carrier, convertible seat, or toddler seat).
Small children	Children who have outgrown or no longer properly fit in a child safety seat (generally children who are less than 4 ft. 9 in. (1.45 m) tall, are greater than age four and less than age 12, and between 40 lb (18 kg) and 80 lb (36 kg) and upward to 100 lb (45 kg) if recommended by your child restraint manufacturer).	Use a belt-positioning booster seat.
Larger children	Children who have outgrown or no longer properly fit in a belt-positioning booster seat (generally children who are at least 4 ft. 9 in. (1.45 m) tall or greater than 80 lb (36 kg) or 100 lb (45 kg) if recommended by child restraint manufacturer).	Use a vehicle safety belt having the lap belt snug and low across the hips, shoulder belt centered across the shoulder and chest, and seat back upright.

- You are required by law to properly use safety seats for infants and toddlers in the United States and Canada.
- Many states and provinces require that small children use approved booster seats until they reach age eight, a height of 4 feet 9 inches (1.45 meters) tall, or 80 pounds (36 kilograms). Check your local and state or provincial laws for specific requirements about the safety of children in your vehicle.
- When possible, always properly restrain children 12 years of age and under in a rear seating position of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in a front seating position. See **Front Passenger Sensing System** (page 39).

INSTALLING CHILD RESTRAINTS

Child Seats

E142594

Use a child safety seat (sometimes called an infant carrier, convertible seat, or toddler seat) for infants, toddlers, or children weighing 40 pounds (18 kilograms) or less (generally age four or younger).

Using Lap and Shoulder Belts

WARNINGS

Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat upon which the child seat is installed all the way back.

Airbags can kill or injure a child in a child seat. Children 12 and under should be properly restrained in the rear seat whenever possible.

Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies and LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, occupants should only use seating positions where they are able to be properly restrained.

When installing a child safety seat with combination lap and shoulder belts:

- Use the correct seatbelt 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 the vehicle seat upon which the child seat will be installed in the upright position.
- Put the seatbelt in the automatic locking mode. See Step 5. This vehicle does not require the use of a locking clip.

Perform the following steps when installing the child seat with combination lap and shoulder belts:

Note: *Although the child seat illustrated is a forward facing child seat, the steps are the same for installing a rear facing child seat.*

E142528

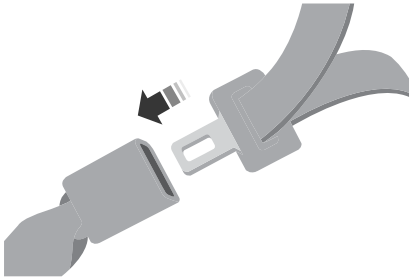
1. Position the child safety seat in a seat with a combination lap and shoulder belt.

E142529

2. After positioning the child safety seat in the proper seating position, pull down on the shoulder belt and then grasp the shoulder belt and lap belt together behind the belt tongue.

E142530

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.


E142531

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.

E142875

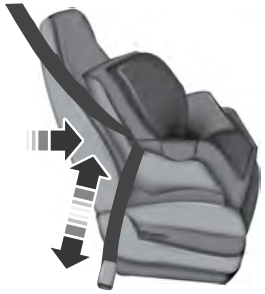
5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until all of the belt is pulled out.

Note: *The automatic locking mode is available on the front passenger and rear seats.*

6. Allow the belt to retract to remove slack. The belt will click as it retracts to indicate it is in the automatic locking mode.
7. 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 5 and 6.

E142533

8. Remove remaining slack from the belt. Force the seat down with extra weight, for example, by pressing down or kneeling on the child restraint while pulling up on the shoulder belt in order to force slack from the belt. This is necessary to remove the remaining slack that will exist once the extra weight of the child is added to the child restraint. It also helps to achieve the proper snugness of the child seat to your vehicle. Sometimes, a slight lean toward the buckle will provide extra help to remove remaining slack from the belt.
9. Attach the tether strap (if the child seat is equipped).



E142534

10. 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 and back. There should be no more than 1 inch (2.5 centimeters) of movement for proper installation.

We recommend checking with a NHTSA Certified Child Passenger Safety Technician to make certain the child restraint is properly installed. In Canada, check with Transport Canada for referral to a Child Car Seat Clinic.

Using Lower Anchors and Tethers for CHildren (LATCH)

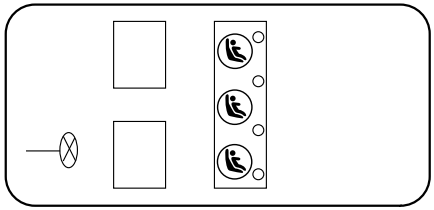
WARNINGS

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

Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies or LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, occupants should only use seating positions where they are able to be properly restrained.

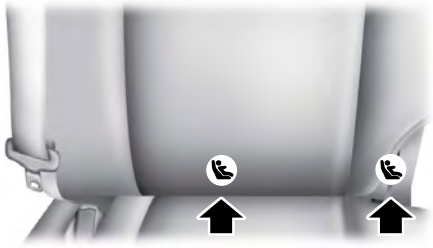
The LATCH system is composed of three vehicle anchor points: two lower anchors located where seat back and seat cushion meet (called the seat bight) and one top tether anchor located behind that seating position.

LATCH compatible child safety seats have two rigid or webbing mounted attachments that connect to the two lower anchors at the LATCH equipped seating positions in your vehicle. This type of attachment method eliminates the need to use seatbelts to attach the child seat, however the seatbelt can still be used to attach the child seat. For forward-facing child seats, the top tether strap must also be attached to the proper top tether anchor, if a top tether strap has been provided with your child seat.



E173197

Your vehicle has LATCH lower anchors for child seat installation at the seating positions marked with the child seat symbol.



E224433

The LATCH anchors are located at the rear section of the rear seat between the cushion and seatback below the symbols as shown. Follow the child seat manufacturer's instructions to properly install a child seat with LATCH attachments. Follow the instructions on attaching child safety seats with tether straps.

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

Child Seat Positioning for LATCH Lower Anchors

All the LATCH lower anchors are equally spaced, 11 inches (28 centimeters) apart, allowing for the following child seat positioning:

- If a single child seat is installed using the LATCH lower anchors, it can be installed at any rear seating position.
- If two child safety seats are installed using the LATCH lower anchors, they must be placed in the outboard seating positions only.
- If three child safety seats are installed, you can install two using the LATCH lower anchors by placing them in each outboard seating position and the third in the center using the lap and shoulder belt, OR you can use the LATCH lower anchors for the center child safety seat and the lap and shoulder belts for the other two child safety seats in the outboard positions. Use the tether anchors if applicable.

Combining Seatbelt and LATCH Lower Anchors for Attaching Child Safety Seats

When used in combination, either the seatbelt or the LATCH lower anchors may be attached first, provided a proper installation is achieved. Attach the tether strap afterward, if included with the child seat.

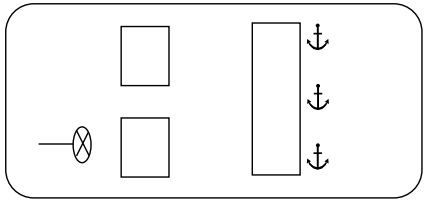
Using Tether Straps

Many forward-facing child safety seats include a tether strap which extends from the back of the child safety seat and hooks to an anchoring point called the top tether anchor. 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, or to obtain a longer tether strap if the tether strap on your safety seat does not reach the appropriate top tether anchor in your vehicle.

Once the child safety seat has been installed using either the seatbelt, the lower anchors of the LATCH system, or both, you can attach the top tether strap.

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



E142537

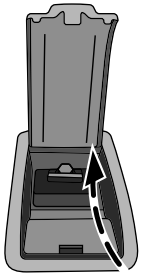
Perform the following steps to install a child safety seat with tether anchors:

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

1. Route the child safety seat tether strap over the back of the seat.

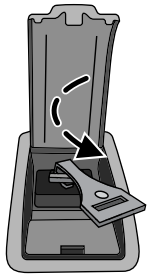
E173198

2. Locate the correct anchor for the selected seating position, then open the tether anchor cover.



E173199

3. Open the tether anchor cover.



E173200

4. Clip the tether strap to the anchor as shown.
5. Tighten the child safety seat tether strap according to the manufacturer's instructions.

If your child restraint system is equipped with a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

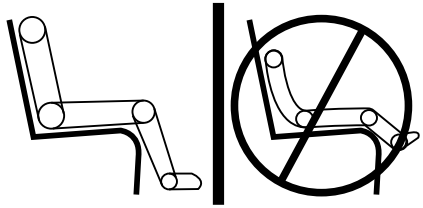
BOOSTER SEATS

WARNING

Never place, or allow a child to place, the shoulder belt under a child's arm or behind the back because it reduces the protection for the upper part of the body and may increase the risk of injury or death in a crash.

Use a belt-positioning booster seat for children who have outgrown or no longer properly fit in a child safety seat (generally children who are less than 4 feet 9 inches (1.45 meters) tall, are greater than age four (4) and less than age twelve (12), and between 40 pounds (18 kilograms) and 80 pounds (36 kilograms) and upward to 100 pounds (45 kilograms) if recommended by your child restraint manufacturer). Many state and provincial laws require that children use approved booster seats until they reach age eight, a height of 4 feet 9 inches (1.45 meters) tall, or 80 pounds (36 kilograms).

Booster seats should be used until you can answer YES to ALL of these questions when seated without a booster seat:



E142595

- Can the child sit all the way back against their vehicle seat back with knees bent comfortably at the edge of the seat cushion?
- Can the child sit 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?

Always use booster seats in conjunction with your vehicle lap and shoulder belt.

Types of Booster Seats

E68924

- Backless booster seats

If your backless booster seat has a removable shield, remove the shield. If a vehicle seating position has a low seat back or no head restraint, a backless booster seat may place your child's head (as measured at the tops of the ears) above the top of the seat. In this case, move the backless booster to another seating position with a higher seat back or head restraint and lap and shoulder belts, or consider using a high back booster seat.

E70710

- High back booster seats

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

Children and booster seats vary in size and shape. Choose a booster that keeps the lap belt low and snug across the hips, never up across the stomach, and lets you adjust the shoulder belt to cross the chest and rest snugly near the center of the shoulder. The following drawings compare the ideal fit (center) to a shoulder belt uncomfortably close to the neck and a shoulder belt that could slip off the shoulder. The drawings also show how the lap belt should be low and snug across the child's hips.

E142596

E142597

If the booster seat slides on the vehicle seat upon which it is being used, placing a rubberized mesh sold as shelf or carpet liner under the booster seat may improve this condition. Do not introduce any item thicker than this under the booster seat. Check with the booster seat manufacturer's instructions.

CHILD RESTRAINT POSITIONING

WARNINGS

Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the vehicle seat upon which the child seat is installed all the way back. When possible, all children age 12 and under should be properly restrained in a rear seating position. If all children cannot be seated and restrained properly in a rear seating position, properly restrain the largest child in the front seat.

WARNINGS

Always carefully follow the instructions and warnings provided by the manufacturer of any child restraint to determine if the restraint device is appropriate for your child's size, height, weight, or age. Follow the child restraint manufacturer's instructions and warnings provided for installation and use in conjunction with the instructions and warnings provided by your vehicle manufacturer. A safety seat that is improperly installed or utilized, is inappropriate for your child's height, age, or weight or does not properly fit the child may increase the risk of serious injury or death.

WARNINGS

Never let a passenger hold a child on his or her lap while your vehicle is moving. The passenger cannot protect the child from injury in a crash, which may result in serious injury or death.

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

WARNINGS

Always restrain an unoccupied child seat or booster seat. These objects may become projectiles in a crash or sudden stop, which may increase the risk of serious injury.

WARNINGS

Never place, or allow a child to place, the shoulder belt under a child's arm or behind the back because it reduces the protection for the upper part of the body and may increase the risk of injury or death in a crash.

To avoid risk of injury, do not leave children or pets unattended in your vehicle.

Recommendations for attaching child safety restraints for children

Restraint Type	Combined weight of child and child seat	Use any attachment method as indicated below by X				
		LATCH (lower anchors and top tether anchor)	LATCH (lower anchors only)	Safety belt and top tether anchor	Safety belt and LATCH (lower anchors and top tether anchor)	Safety belt only
Rear facing child seat	Up to 65 lb (29.5 kg)		X			X
Rear facing child seat	Over 65 lb (29.5 kg)					X
Forward facing child seat	Up to 65 lb (29.5 kg)	X		X	X	
Forward facing child seat	Over 65 lb (29.5 kg)			X	X	

Note: *The child seat must rest tightly against the vehicle seat upon which it is installed. It may be necessary to lift or remove the head restraint. See* ***Seats*** *(page 109).*

CHILD SAFETY LOCKS

When these locks are set, the rear doors cannot be opened from the inside.

E112197

The childproof locks are located on the rear edge of each rear door and must be set separately for each door.

Left-Hand Side

Turn counterclockwise to lock and clockwise to unlock.

Right-Hand Side

Turn clockwise to lock and counterclockwise to unlock.

PRINCIPLE OF OPERATION

WARNINGS

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

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 your vehicle is moving. The passenger cannot protect the child from injury in a crash.

All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a crash, 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 seatbelts. Be sure everyone in your vehicle is in a seat and using a seatbelt properly.

WARNINGS

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

Each seating position in your vehicle has a specific seatbelt 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 seatbelt around your neck over the inside shoulder. 3) Never use a single belt for more than one person.

When possible, all children 12 years old and under should be properly restrained in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.

Seatbelts and seats can become hot in a vehicle that has been closed up in sunny weather; they could burn a small child. Check seat covers and buckles before you place a child anywhere near them.

Front and rear seat occupants, including pregnant women, should wear seatbelts for optimum protection in an accident.

All seating positions in your vehicle have lap and shoulder seatbelts. All occupants of the vehicle should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided.

The seatbelt system consists of:

- Lap and shoulder seatbelts.
- Shoulder seatbelt with automatic locking mode, (except driver seatbelt).
- Height adjuster at the front outboard seating positions.
- Seatbelt pretensioner at the front outboard seating positions.
- Belt tension sensor at the front outboard passenger seating position.

· Seatbelt warning light and chime.

· Crash sensors and monitoring system with readiness indicator.

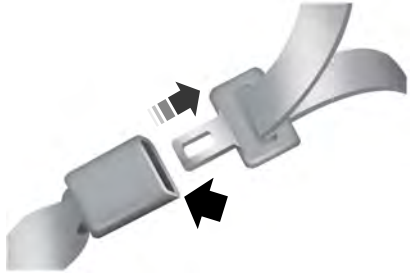
The seatbelt pretensioners at the front seating positions are designed to tighten the seatbelts when activated. In frontal and near-frontal crashes, the seatbelt pretensioners may be activated alone or, if the crash is of sufficient severity, together with the front airbags. The pretensioners may also activate when the Safety Canopy is deployed.

FASTENING THE SEATBELTS

The front outboard and rear safety restraints in the vehicle are combination lap and shoulder belts.

E142587

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.



E142588

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

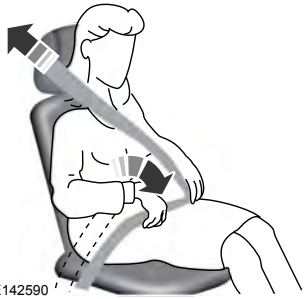
E142589

When in use, the rear safety belts should be placed in the belt guides on the outboard seatbacks.

Using Safety Belts During Pregnancy

WARNING

Always ride and drive with your seatback upright and the safety belt properly fastened. The lap portion of the safety belt should fit snug and be positioned low across the hips. The shoulder portion of the safety belt should be positioned across the chest. Pregnant women should also follow this practice. See the following figure.


E142590

Pregnant women should always wear their safety belt. The lap belt portion of a combination lap and shoulder belt should be positioned low across the hips below the belly and worn as tight as comfort will allow. The shoulder belt should be positioned to cross the middle of the shoulder and the center of the chest.

Safety Belt Locking Modes

WARNINGS

After any vehicle crash, the safety belt system at all passenger seating positions must be checked by an authorized dealer to verify that the automatic locking retractor feature for child seats is still functioning properly. In addition, all safety belts should be checked for proper function.

The belt and retractor assembly must be replaced if the safety belt assembly automatic locking retractor feature or any other safety belt function is not operating properly when checked by an authorized dealer. Failure to replace the belt and retractor assembly could increase the risk of injury in crashes.

All safety restraints in the vehicle are combination lap and shoulder belts. The driver safety belt has the first type of locking mode, and the front outboard passenger and rear seat safety belts have both types of locking modes described as follows:

Vehicle Sensitive Mode

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

In addition, the retractor is designed to lock if the webbing is pulled out too quickly. If this occurs, let the belt retract slightly and pull webbing out again in a slow and controlled manner.

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

This mode should be used any time a child safety seat, except a booster, is installed in passenger front or rear seating positions. Children 12 years old and under should be properly restrained in a rear seating position whenever possible. See **Child Safety** (page 15).

How to Use the Automatic Locking Mode

E142591

1. Buckle the combination lap and shoulder belt.
2. Grasp the shoulder portion and pull downward until the entire belt is pulled out.

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

How to Disengage the Automatic Locking Mode

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

Safety Belt Extension Assembly

WARNING

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

If the safety belt is too short when fully extended, you can obtain a safety belt extension assembly from an authorized dealer.

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

SEATBELT HEIGHT ADJUSTMENT

WARNING

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

Adjust the height of the shoulder belt so the belt rests across the middle of your shoulder.

E146191

To adjust the shoulder belt height:

1. Press the button and slide the height adjuster up or down.

2. Release the button and pull down on the height adjuster to make sure it is locked in place.

SEATBELT WARNING LAMP AND INDICATOR CHIME

This lamp illuminates and an audible warning will sound if the driver's safety belt has not been fastened when the vehicle's ignition is turned on.

Conditions of operation

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

SEATBELT REMINDER

Belt-Minder™

This feature supplements the safety belt warning function by providing additional reminders that intermittently sound a tone and illuminate the safety belt warning light when you are in the driver seat or you have a front seat passenger and a safety belt is unbuckled.

The system uses information from the front passenger sensing system to determine if a front seat passenger is present and therefore potentially in need of a warning. To avoid activating the Belt-Minder feature for objects you place in the front passenger seat, only the front seat passengers receive warnings as determined by the front passenger sensing system.

If the Belt-Minder warnings expire (warnings for about five minutes) for one passenger (driver or front passenger), the other passenger can still cause the Belt-Minder feature to turn on.

If...	Then...
You and the front seat passenger buckle your safety belts before you switch the ignition on or less than 1-2 minutes elapse after you switch the ignition on...	The Belt-Minder feature will not activate.
You or the front seat passenger do not buckle your safety belts before your vehicle reaches at least 6 mph (9.7 km/h) and 1-2 minutes elapse after you switch the ignition on...	The Belt-Minder feature activates, the safety belt warning light illuminates and a warning tone sounds for 6 seconds every 25 seconds, repeating for about 5 minutes or until you and the front seat passenger buckle your safety belts.
The safety belt for the driver or front passenger is unbuckled for about 1 minute while the vehicle is traveling at least 6 mph (9.7 km/h) and more than 1-2 minutes elapse after you switch the ignition on...	The Belt-Minder feature activates, the safety belt warning light illuminates and a warning tone sounds for 6 seconds every 25 seconds, repeating for about 5 minutes or until you and the front seat passenger buckle your safety belts.

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Deactivating and Activating the Belt-Minder Feature

WARNING

While the system allows you to deactivate it, this system is designed to improve your chances of being safely belted and surviving an accident. We recommend you leave the system activated for yourself and others who may use the vehicle.

Note: *The driver and front passenger warnings switch on and off independently. When you perform this procedure for one seating position, do not buckle the other position as this will terminate the process.*

Read Steps 1 - 4 thoroughly before proceeding with the programming procedure.

Before following the procedure, make sure that:

- The parking brake is set.
- The transmission is in park (P) or neutral (N).
- The ignition is off.
- The driver and front passenger safety belts are unbuckled.

1. Switch the ignition on. Do not start the vehicle.
2. Wait until the safety belt warning light turns off (about one minute). After Step 2, wait an additional 5 seconds before proceeding with Step 3. Once you start Step 3, you must complete the procedure within 30 seconds.
3. For the seating position you are switching off, buckle then unbuckle the safety belt three times at a moderate speed, ending in the unbuckled state. After Step 3, the safety belt warning light turns on.
4. While the safety belt warning light is on, buckle and then unbuckle the safety belt. After Step 4, the safety belt warning light flashes for confirmation.

- This will switch the feature off for that seating position if it is currently on.
- This will switch the feature on for that seating position if it is currently off.

CHILD RESTRAINT AND SEATBELT MAINTENANCE

Inspect the vehicle safety belts and child safety seat systems periodically to make sure they work properly and are not damaged. Inspect the vehicle and child seat safety belts to make sure there are no nicks, tears or cuts. Replace if necessary. All vehicle safety belt assemblies, including retractors, buckles, front safety belt buckle assemblies, buckle support assemblies (slide bar-if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seat back (if equipped), rear inflatable safety belts (if equipped), child safety seat LATCH and tether anchors, and attaching hardware, should be inspected after a crash. Read the child restraint manufacturer's instructions for additional inspection and maintenance information specific to the child restraint.

We recommend that all safety belt assemblies in use in vehicles involved in a crash be replaced. However, if the crash was minor and an authorized dealer 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 crash should also be inspected and replaced if either damage or improper operation is noted.

Properly care for safety belts. See **Cleaning the Interior** (page 266).

The Personal Safety System provides an improved overall level of frontal crash protection to front seat occupants and is designed to help further reduce the risk of airbag-related injuries. The system is able to analyze different occupant conditions and crash severity before activating the appropriate safety devices to help better protect a range of occupants in a variety of frontal crash situations.

The Vehicle Personal Safety System consists of:

- Driver and passenger dual-stage airbag supplemental restraints.
- Front seat outboard safety belts with pretensioners, energy management retractors and safety belt usage sensors.
- Driver seat position sensor.
- Front passenger sensing system.
- Passenger airbag off and on indicator lamp.
- Front crash severity sensors.
- Restraints control module with impact and safing sensors.
- Restraint system warning light and backup tone.
- The electrical wiring for the airbags, crash sensors, safety belt pretensioners, front safety belt usage sensors, driver seat position sensor, front passenger sensing system and indicator lights.

How Does the Personal Safety System Work?

The Personal Safety System can adapt the deployment strategy of the safety devices according to crash severity and occupant conditions. A collection of crash and occupant sensors provides information to the restraints control module. During a crash, the restraints control module may deploy the safety belt pretensioners, one or both stages of the dual-stage airbags based on crash severity and occupant conditions.

PRINCIPLE OF OPERATION

WARNINGS

Airbags do not inflate slowly or gently, and the risk of injury from a deploying airbag is the greatest close to the trim covering the airbag module.

All occupants of your vehicle, including the driver, should always properly wear their safety belts, even when an airbag supplemental restraint system is provided. Failure to properly wear your safety belt could seriously increase the risk of injury or death.

Always transport children 12 years old and under in the back seat and always properly use appropriate child restraints. Failure to follow this could seriously increase the risk of injury or death.

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

Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat upon which the child seat is installed all the way back.

WARNINGS

Do not attempt to service, repair, or modify the airbag supplemental restraint systems or its fuses as you could be seriously injured or killed. Contact your authorized dealer as soon as possible.

Several airbag system components get hot after inflation. To reduce the risk of injury, do not touch them after inflation.

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

The airbags are a supplemental restraint system and are designed to work with the safety belts to help protect the driver and right front passenger from certain upper body injuries. Airbags do not inflate slowly; there is a risk of injury from a deploying airbag.

Note: *You will hear a loud bang and see a cloud of harmless powdery residue if an airbag deploys. This is normal.*

The airbags inflate and deflate rapidly upon activation. After airbag 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 (for example, baking soda) that result from the combustion process that inflates the airbag. 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 airbag may also cause abrasions or swelling. Temporary hearing loss is also a possibility as a result of the noise associated with a deploying airbag. Because airbags 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 airbag deployment. Thus, it is extremely important that occupants be properly restrained as far away from the airbag module as possible while maintaining vehicle control.

Routine maintenance of the airbags is not required.

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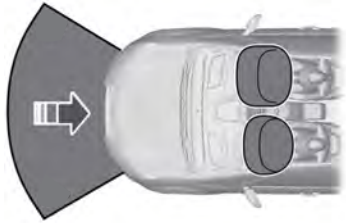
DRIVER AND PASSENGER AIRBAGS

WARNINGS

Never place your arm or any objects over an airbag module. Placing your arm over a deploying airbag can result in serious arm fractures or other injuries. Objects placed on or over the airbag inflation area may cause those objects to be propelled by the airbag into your face and torso causing serious injury.

Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat upon which the child seat is installed all the way back.



E151127

The driver and front passenger airbags will deploy during significant frontal and near frontal crashes.

The driver and passenger front airbag system consists of:

- Driver and passenger airbag modules.
- Front passenger sensing system.

· Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag Indicator** (page 44).

Proper Driver and Front Passenger Seating Adjustment

WARNING

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

To properly position yourself away from the airbag:

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

After all occupants have adjusted their seats and put on safety belts, it is very important that they continue to sit properly. A properly seated occupant sits upright, leaning against the seat back, and centered on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase

the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash is greatly increased.

Children and Airbags

WARNING

Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat upon which the child seat is installed all the way back.

E142846

Children must always be properly restrained. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position. Failure to follow these instructions may increase the risk of injury in a crash.

FRONT PASSENGER SENSING SYSTEM

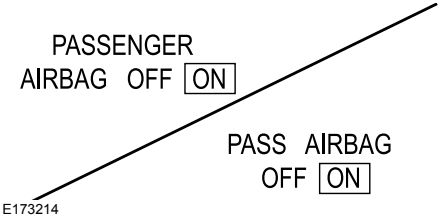
WARNINGS

Even with Advanced Restraints Systems, children 12 and under should be properly restrained in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.

Sitting improperly out of position or with the seat back reclined too far can take off weight from the seat cushion and affect the decision of the front passenger sensing system, resulting in serious injury or death in a crash. Always sit upright against your seat back, with your feet on the floor.

Any alteration or modification to the front passenger seat may affect the performance of the front passenger sensing system which could seriously increase the risk of injury or death.

This system works with sensors that are part of the front passenger's seat and safety belt to detect the presence of a properly-seated occupant and determine if the front passenger's frontal airbag should be enabled (may inflate) or not.



E173214

The front passenger sensing system uses a passenger airbag status indicator that will illuminate indicating that the front passenger frontal airbag is either ON (enabled) or OFF (disabled).

The indicator lamp is located in the center stack of the instrument panel.

Note: *The passenger airbag status indicator OFF and ON indicator lamps will illuminate for a short period of time when the ignition is first turned on to confirm it is functional.*

The front passenger sensing system is designed to disable (will not inflate) the front passenger's frontal airbag when the front passenger seat is unoccupied, or a rear facing infant seat, a forward-facing child restraint, or a booster seat is detected. Even with this technology, parents are **strongly** encouraged to always properly restrain children in the rear seat. The sensor also turns off the passenger front airbag and seat-mounted side airbag when the passenger seat is empty.

- When the front passenger sensing system disables (will not inflate) the front passenger frontal airbag, the passenger airbag status indicator will illuminate the OFF lamp and stay lit to remind you that the front passenger frontal airbag is disabled.
- If the child restraint has been installed and the passenger airbag status indicator illuminates the ON lamp, then turn the vehicle off, remove the child restraint from the vehicle and reinstall the restraint following the child restraint manufacturer's instructions.

The front passenger sensing system is designed to enable (may inflate) the front passenger's frontal airbag anytime the system senses that a person of adult size is sitting properly in the front passenger seat.

- When the front passenger sensing system enables the front passenger frontal airbag (may inflate), the passenger airbag status indicator will illuminate the ON lamp and remain illuminated.

If a person of adult size is sitting in the front passenger's seat, but the airbag off indicator lamp is lit, it is possible that the person is not sitting properly in the seat. If this happens:

- Turn the vehicle off and ask the person to place the seat back in the full upright position.
- Have the person sit upright in the seat, centered on the seat cushion, with the person's legs comfortably extended.
- Restart the vehicle and have the person remain in this position for about two minutes. This will allow the system to detect that person and enable the passenger's frontal airbag.
- If the indicator OFF lamp remains lit even after this, the person should be advised to ride in the rear seat.

Occupant	Passenger airbag status indicator	Passenger airbag
Empty	OFF: Lit	Disabled
	ON: Unlit	
Child	OFF: Lit	Disabled
	ON: Unlit	
Adult	OFF: Unlit	Enabled
	ON: Lit	

Note: *When the passenger airbag status indicator OFF light is illuminated, the passenger (seat mounted) side airbag may be disabled to avoid the risk of airbag deployment injuries.*

After all occupants have adjusted their seats and put on safety belts, it is very important that they continue to sit properly. A properly seated occupant sits upright, leaning against the seat back, and centered on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash is greatly increased.

Make sure the front passenger sensing system is operating properly. See **Crash Sensors and Airbag Indicator** (page 44).

Do not attempt to repair or service the system. Take your vehicle immediately to an authorized dealer.

If it is necessary to modify an advanced front airbag system to accommodate a person with disabilities, contact the Ford Customer Relationship Center. See **Getting the Services You Need** (page 216).

SIDE AIRBAGS

WARNINGS

Do not place objects or mount equipment on or near the airbag 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 crash.

WARNINGS

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.

Do not attempt to service, repair, or modify the airbag, its fuses or the seat cover on a seat containing an airbag as you could be seriously injured or killed. Contact your authorized dealer as soon as possible.

If the side airbag has deployed, the airbag will not function again. The side airbag system (including the seat) must be inspected and serviced by an authorized dealer. If the airbag is not replaced, the unrepaired area will increase the risk of injury in a crash.

The side airbags are located on the outboard side of the seatbacks of the front seats. In certain sideways crashes, the airbag on the side affected by the crash will be inflated. The airbag was designed to inflate between the door panel and occupant to further enhance the protection provided occupants in side impact crashes.

E152533

The system consists of the following:

- A label or embossed side panel indicating that side airbags are fitted to your vehicle.
- Side airbags located inside the driver and front passenger seatbacks.
- Front passenger sensing system.
- Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag Indicator** (page 44).

Note: *The passenger sensing system will deactivate the passenger seat-mounted side airbag if it detects an empty passenger seat.*

The design and development of the side airbag system included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags.

SAFETY CANOPY™

WARNINGS

Do not place objects or mount equipment on or near the headliner at the siderail that may come into contact with a deploying curtain airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.

WARNINGS

Do not lean your head on the door. The curtain airbag could injure you as it deploys from the headliner.

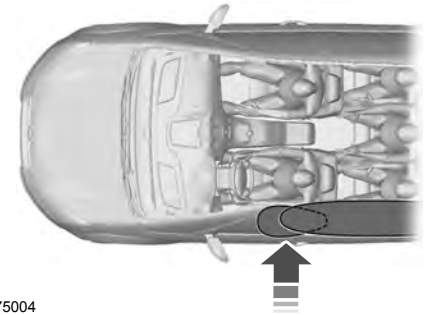
Do not attempt to service, repair, or modify the curtain airbags, its fuses, the A, B, or C pillar trim, or the headliner on a vehicle containing curtain airbags as you could be seriously injured or killed. Contact your authorized dealer as soon as possible.

All occupants of your vehicle including the driver should always wear their safety belts even when an airbag supplemental restraint system and curtain airbag is provided. Failure to properly wear your safety belt could seriously increase the risk of injury or death.

To reduce risk of injury, do not obstruct or place objects in the deployment path of the curtain airbag.

If the curtain airbags have deployed, the curtain airbags will not function again. The curtain airbags (including the A, B and C pillar trim and headliner) must be inspected and serviced by an authorized dealer. If the curtain airbag is not replaced, the unrepaired area will increase the risk of injury in a crash.

The Safety Canopy will deploy during significant side crashes or when a certain likelihood of a rollover event is detected by the rollover sensor. The Safety Canopy is mounted to the roof side-rail sheet metal, behind the headliner, above each row of seats. In certain sideways crashes or rollover events, the Safety Canopy will be activated, regardless of which seats are occupied. The Safety Canopy is designed to inflate between the side window area and occupants to further enhance protection provided in side impact crashes and rollover events.



E75004

The system consists of the following:

- Safety canopy curtain airbags located above the trim panels over the front and rear side windows identified by a label or wording on the headliner or roof-pillar trim.
- A flexible headliner which opens above the side doors to allow air curtain deployment

· Crash sensors and monitoring system with a readiness indicator. See **Crash Sensors and Airbag Indicator** (page 44).

Children 12 years old and under should always be properly restrained in the rear seats. The Safety Canopy will not interfere with children restrained using a properly installed child or booster seat because it is designed to inflate downward from the headliner above the doors along the side window opening.

The design and development of the Safety Canopy included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags (including the Safety Canopy).

CRASH SENSORS AND AIRBAG INDICATOR

WARNING

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.

Your vehicle has a collection of crash and occupant sensors which provide information to the restraints control module. The restraints control module deploys (activates) the front seatbelt pretensioners, driver airbag, passenger airbag, seat mounted side airbags and the Safety Canopy. Based on the type of crash, the restraints control module will deploy the appropriate safety devices.

The restraints control module also monitors the readiness of the above safety devices plus the crash and occupant sensors. The readiness of the safety system is indicated by a warning indicator light in the instrument cluster or by a backup tone if the warning light is not working. Routine maintenance of the airbag is not required.

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

The readiness light will not illuminate immediately after the ignition is turned on.

- The readiness light will either flash or stay lit.
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem, the light or both are repaired.

If any of these things happen, even intermittently, have the supplemental restraint system serviced at an authorized dealer immediately. Unless serviced, the system may not function properly in the event of a crash.

The seatbelt pretensioners and the front airbag supplemental restraint system are designed to activate when the vehicle sustains frontal deceleration sufficient to cause the restraints control module to deploy a safety device.

The fact that the seatbelt pretensioners or front airbags did not activate for both front seat occupants in a crash does not mean that something is wrong with the system. Rather, it means the restraints control module determined the accident conditions (crash severity, belt usage) were not appropriate to activate these safety devices.

- The design of the front airbags is to activate only in frontal and near-frontal crashes (not rollovers, side impacts or rear impacts) unless the crash causes sufficient frontal deceleration.
- The design of the seatbelt pretensioners is to activate in frontal, near-frontal and side crashes and in rollovers.

- The design of the side airbags is to inflate in certain side impact crashes. Side airbags may activate in other types of crashes if the vehicle experiences sufficient sideways motion or deformation.
- The design of the Safety Canopy is to inflate in certain side impact crashes or rollover events. The Safety Canopy may activate in other types of crashes if the vehicle experiences sufficient sideways motion or deformation, or a certain likelihood of rollover.

AIRBAG DISPOSAL

Contact your authorized dealer as soon as possible. Airbags must be disposed of by qualified personnel.

GENERAL INFORMATION ON RADIO FREQUENCIES

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). 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.

Note: *Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term* ***IC*** *before the radio certification number only signifies that Industry Canada technical specifications were met.*

The typical operating range for your transmitter is approximately 33 feet (10 meters). Vehicles with the remote start feature will have a greater range. One of the following could cause a decrease in operating range:

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

Other short-distance radio transmitters, such as amateur radios, medical equipment, wireless headphones, remote controls and alarm systems may operate on the same frequency as your remote control. If other transmitters are operating on those frequencies, you may not be able to use your remote control. Using your remote control near some types of electronic equipment, such as USB devices, computers or cell phones can interfere with remote operation. Operating your remote control near metal or metallic-finished purses, bags or clothing can interfere with remote operation. You can lock and unlock the doors with the key.

Note: *Make sure to lock your vehicle before leaving it unattended.*

Note: *If you are in range, the remote control will operate if you press any button unintentionally.*

Intelligent Access

The system uses a radio frequency signal to communicate with your vehicle and authorize your vehicle to unlock when one of the following conditions are met:

- You touch the inside of any exterior door handle within 3 ft (1 m) proximity of an intelligent access key.
- You press the luggage compartment button.
- You press a button on the transmitter.

If excessive radio frequency interference is present in the area or if the transmitter battery is low, you may need to mechanically unlock your door. You can use the mechanical key blade in your intelligent access key to open the driver door in this situation. See **Remote Control** (page 47).

REMOTE CONTROL

Intelligent Access Key

E173598

Your intelligent access key operates the power locks and the remote start system. The key must be in your vehicle to activate the push-button start system.

Removable Key Blade

The intelligent access key also contains a removable mechanical key blade that you can use to unlock the driver door.

E173599

Slide the release on the back of the remote control to release the mechanical key blade, and then pull the blade out.

E173600

Note: *Your vehicle's backup keys came with a security tag that provides important vehicle key cut information. Keep the tag in a safe place for future reference.*

Replacing the Battery

Note: *Refer to local regulations when disposing of transmitter batteries.*

Note: *Do not wipe off any grease on the battery terminals or on the back surface of the circuit board.*

Note: *Replacing the battery will not delete the transmitter from the vehicle. The transmitter should operate normally.*

Intelligent Access Transmitter

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

E173599

1. Remove the mechanical key blade from the transmitter.

E173601

2. Insert a coin into the slot and twist to separate the housing.

E173602

3. Remove the old battery.
4. Install a new batteries with the **+** facing downward. Press the battery down to make sure that it is fully in the housing.
5. Snap the battery cover back onto the transmitter and install the mechanical key blade.

Car Finder

Press the button twice within three seconds. The horn will sound and the turn signals will flash. We recommend you use this method to locate your vehicle, rather than using the panic alarm.

Sounding a Panic Alarm

Note: *The panic alarm will only operate when the ignition is off.*

Press the button to activate the alarm. Press the button again or switch the ignition on to deactivate.

Remote Start

WARNING

To avoid exhaust fumes, do not use remote start if your vehicle is parked indoors or areas that are not well ventilated.

Note: *Do not use remote start if your vehicle is low on fuel.*

The remote start button is on the transmitter.

This feature allows you to start your vehicle from outside the vehicle. The transmitter has an extended operating range.

Vehicles with automatic climate control can be configured to operate when the vehicle is remote started. See **Remote Start** (page 108). A manual climate control system will run at the setting it was set to when you switched the vehicle off.

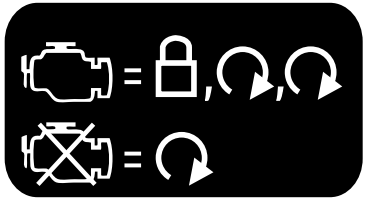
Many states and provinces have restrictions for the use of remote start. Check your local and state or provincial laws for specific requirements regarding remote start systems.

The remote start system will not work if:

- the ignition is on
- the alarm system is triggered
- you disable the feature
- the hood is open
- the transmission is not in **P**
- the vehicle battery voltage is too low
- the service engine soon light is on.

Remote Starting the Vehicle

Note: *You must press each button within three seconds of each other. Your vehicle will not remote start if you do not follow this sequence.*



E138626

The tag with your transmitter details the starting procedure.

To remote start your vehicle:

1. Press the lock button to lock all the doors.
2. Press the remote start button twice. The exterior lamps will flash twice.

The horn will sound if the system fails to start, unless quiet start is on. Quiet start will run the blower fan at a slower speed to reduce noise. It can be switched on or off in the information display. See **General Information** (page 89).

Note: *If the vehicle has been remote started with an integrated keyhead transmitter, you must switch the ignition on before driving your vehicle. With an intelligent access transmitter, you must press the **START/STOP** button on the instrument panel once while applying the brake pedal before driving your vehicle.*

The power windows will not work during the remote start and the radio will not turn on automatically.

The parking lamps will remain on and the vehicle will run for 5, 10, or 15 minutes, depending on the setting.

Extending the Vehicle Run Time

Repeat Steps 1 and 2 with the vehicle still running to extend the run time for another remote start duration. If you programmed the duration to last 10 minutes, the second 10 minutes will begin after what is left of the first activation time. For example, if the vehicle had been running from the first remote start for five minutes, the vehicle will continue to run now for a total of 15 minutes. You can extend the remote start up to a maximum of 35 minutes.

Wait at least five seconds before remote starting after a vehicle shutdown.

Turning the Vehicle Off After Remote Starting

Press the button once. The parking lamps will turn off.

You may have to be closer to the vehicle than when starting due to ground reflection and the added noise of the running vehicle.

You can disable or enable the remote start system through the information display. See **General Information** (page 89).

Memory Feature

You can recall the positions of the memory seat, outside mirrors, steering column and power pedal positions (if equipped) with your intelligent access key if it is linked to a pre-set position. See **Memory Function** (page 114).

REPLACING A LOST KEY OR REMOTE CONTROL

Replacement keys or remote controls can be purchased from an authorized dealer. Authorized dealers can program remote controls for your vehicle. See **Passive Anti-Theft System** (page 63).

PRINCIPLE OF OPERATION

MyKey allows you to program keys with restricted driving modes to promote good driving habits. All but one of the keys can be activated with these restricted modes.

Any keys that remain unprogrammed are referred to as administrator keys or admin keys. They can be used to:

- Create a MyKey.
- Program configurable MyKey settings.
- Clear all MyKey features.

When you have created a MyKey, you can access the following information by using the information display to determine:

- How many admin keys and MyKeys are programmed to your vehicle.
- The total distance your vehicle traveled with a MyKey.

Note: *Switch the ignition on to use the system.*

Note: *All MyKeys are programmed to the same settings. You cannot program them individually.*

Note: *For vehicles equipped with a push-button start, when both a MyKey and an admin key are present, the admin key will be recognized by the vehicle when you start the vehicle.*

Non-configurable Settings

The following settings cannot be changed by an admin key user:

- Safety belt reminder. You cannot disable this feature. The audio system will mute when the front seat passengers' safety belts are not fastened.
- Early low fuel. The low-fuel warning activates earlier, giving the MyKey user more time to refuel.
- Driver assist features, if equipped on your vehicle, are forced on: parking aid, forward collision warning, lane departure warning and Blind Spot Information System (BLIS) with cross traffic alert.
- Satellite radio adult content restrictions, if equipped on your vehicle.

Configurable Settings

With an admin key, you can configure certain MyKey settings when you first create a MyKey and before you recycle the key or restart the engine. You can also change the settings afterward with an admin key.

- A vehicle speed limit can be set. Warnings will be shown in the display followed by an audible tone when your vehicle reaches the set speed. You cannot override the set speed by fully depressing the accelerator pedal or by setting cruise control.

WARNING

Do not set MyKey maximum speed limit to a limit that will prevent the driver from maintaining a safe speed considering posted speed limits and prevailing road conditions. The driver is always responsible to drive in accordance with local laws and prevailing conditions. Failure to do so could result in accident or injury.

- Various vehicle speed minders can be set. Once you select a speed, it will be shown in the display, followed by an audible tone when the preselected vehicle speed is exceeded.
- Audio system maximum volume of 45%. A message will be shown in the display when you attempt to exceed the limited volume. Also, the speed-sensitive or compensated automatic volume control will be disabled.
- Always on setting. When this is selected, you will not be able to turn off AdvanceTrac or traction control, E911 or Emergency Assist, or the Do Not Disturb feature (if your vehicle is equipped with these features).

CREATING A MYKEY

Use the information display to create a MyKey:

1. Insert the key you want to program into the ignition. If your vehicle is equipped with a push-button start, place the remote control into the backup position. The location of your backup position is in another chapter. See **Starting a Gasoline Engine** (page 128).
2. Switch the ignition on.
3. Access the main menu on the information display controls. Use the arrow keys to get to the following menu selections:

Message	Action and Description
Settings	Press the **OK** button or the right arrow key.
MyKey	Press the **OK** button or the right arrow key.
Create MyKey	Press the **OK** button or the right arrow key.

When prompted, hold the **OK** button until you see a message informing you to label this key as a MyKey. The key will be restricted at the next start.

MyKey is successfully created. Make sure you label it so you can distinguish it from the admin keys.

You can also program configurable settings for the key(s). See **Programming/Changing Configurable Settings**.

Programming/Changing Configurable Settings

Use the information display to access your configurable MyKey settings.

1. Switch the ignition on using an admin key or remote control.
2. Access the main menu on the information display controls. Use the arrow keys to get to the following menu selections:

Message	Action and Description
Settings	Press the **OK** button or the right arrow key.
MyKey	Press the **OK** button or the right arrow key.

Note: *You can clear or change your MyKey settings at any time during the same key cycle as you created the MyKey. Once you have switched the vehicle off, however, you will need an admin key to change or clear your MyKey settings.*

CLEARING ALL MYKEYS

You can clear or change your MyKey settings using the information display control on the steering wheel. See **Information Displays** (page 89).

Switch the ignition on using an admin key or remote control.

To clear all MyKeys of all MyKey settings, press the left arrow button to access the main menu and scroll to:

Message	Action and Description
Settings	Press the **OK** button.
MyKey	Press the **OK** button.
Clear MyKey	Press and hold the **OK** button until the following message displays.
All MyKeys Cleared	

Note: *When you clear your MyKeys, you remove all restrictions and return all MyKeys to their original admin key status.*

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CHECKING MYKEY SYSTEM STATUS

You can find information on programmed MyKey(s) using the information display control on the steering wheel. See **Information Displays** (page 89).

To find information on programmed MyKey(s), press the left arrow button to access the main menu and scroll to:

Message	Description
Settings	Press the **OK** button.
MyKey	Press the **OK** button.
Select one of the following:	
MyKey Dist.	Tracks the distance when drivers use a MyKey. The only way to delete the accumulated distance is by using an admin key to clear your MyKeys. If the distance does not accumulate as expected, then the intended user is not using the MyKey, or an admin key user recently cleared and then recreated a MyKey.
{0} MyKeys	Indicates the number of MyKeys programmed to your vehicle. Use this feature to detect how many MyKeys you have for your vehicle and determine when a MyKey has been deleted.
{0} Admin Keys	Indicates how many admin keys are programmed to your vehicle. Use this feature to determine how many unrestricted keys you have for your vehicle, and detect if an additional MyKey has been programmed.

USING MYKEY WITH REMOTE START SYSTEMS

MyKey is not compatible with non Ford-approved, aftermarket remote start systems. If you choose to install a remote start system, see an authorized dealer for a Ford-approved remote start system.

MYKEY TROUBLESHOOTING

All Vehicles

Condition	Potential Causes
I cannot create a MyKey.	The key used to start the vehicle is not an admin key. The key used to start the vehicle is the only key. There always has to be at least one admin key. The passive anti-theft system is not programmed to your vehicle. See **Passive Anti-Theft System** (page 63).
I cannot program the configurable settings.	The key used to start your vehicle is not an admin key. There are no MyKeys programmed to your vehicle. See **Creating a MyKey** (page 51).
I cannot clear the MyKeys.	The key used to start your vehicle is not an admin key. There are no MyKeys programmed to your vehicle. See **Creating a MyKey** (page 51).
I lost the only admin key.	Purchase a new key from an authorized dealer.
I lost a key.	Program a spare key. See **Passive Anti-Theft System** (page 63).
The MyKey distance does not accumulate.	The MyKey is not being used by the intended user. The MyKeys have been cleared and the MyKey system has been reset.

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Vehicles With Push-Button Start

Condition	Potential Causes
I cannot create a MyKey.	The transmitter is not in the backup position. See **MyKey Troubleshooting** (page 54).
There are no MyKey driving modes.	An admin key is present when you switch the ignition on. There are no MyKeys programmed to your vehicle. See **Creating a MyKey** (page 51).

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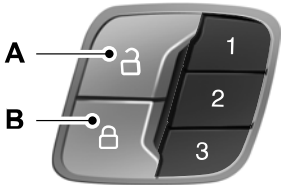
LOCKING AND UNLOCKING

You can use the power door lock control or the remote control to lock and unlock your vehicle.

Power Door Locks

The power door lock control is on the driver and front passenger door panels.



E138628

A Unlock.

B Lock.

Remote Control

You can use the remote control anytime your vehicle is not running.

Unlocking the Doors (Two-Stage Unlock)

Press the button to unlock the driver door.

Press the button again within three seconds to unlock all doors. The turn signals will flash.

Press and hold both the lock and unlock buttons on the remote control for four seconds to disable or enable two-stage unlocking. Disabling two-stage unlocking allows all vehicle doors to unlock with one press of the button. The turn signals will flash twice to indicate the unlocking mode was changed. The unlocking mode will be applied to the remote control, keyless entry keypad and intelligent access.

Intelligent access at the driver door will unlock all doors when two-stage unlocking is disabled.

Locking the Doors

Press the button to lock all the doors. The turn signals will illuminate.

Press the button again within three seconds to confirm that all the doors are closed. The doors will lock again, the horn will sound and the turn signals will illuminate if all the doors and the luggage compartment are closed.

Note: *If any door or the luggage compartment is open, or if the hood is open on vehicles with an anti-theft alarm or remote start, the horn sounds twice and the lamps will not flash.*

Opening the Luggage Compartment

Press twice within three seconds to open the luggage compartment.

Make sure to close and latch the luggage compartment before driving your vehicle. An unlatched luggage compartment may cause objects to fall out or block your view.

Activating Intelligent Access

You must have the intelligent access key within 3 ft (1 m) of your vehicle.

At the Front Doors

Pull an exterior door handle to unlock and open the door.

E173603

Press and hold the door handle lock sensor to lock your vehicle. To avoid unlocking the door inadvertently, make sure to only touch the lock sensor and not other areas of the door handle.

Note: *Keep the door handle surface clean to avoid issues with operation.*

At the Luggage Compartment

Press the release button.

Smart Unlocks

This feature helps to prevent you from unintentionally locking your intelligent access key inside your vehicle's passenger compartment or rear cargo area.

When you lock your vehicle using the driver or passenger power door lock control (with the door open, vehicle park (P) and ignition off), after you close the door your vehicle will search for an intelligent access key in the passenger compartment. If an intelligent access key is found inside your vehicle, all of the doors will immediately unlock and the horn will sound, indicating that the intelligent access key is inside.

In order to override the smart unlock feature and intentionally lock the intelligent access key inside your vehicle, you can lock your vehicle after all doors are closed by using the keyless entry keypad, pressing the lock button on another intelligent access key or touching the locking area on the handle with another intelligent access key in your hand. See **Keyless Entry** (page 59).

When you open one of the front doors and lock your vehicle using the power door lock control, all doors will lock then unlock if:

- The ignition is on.
- The ignition is off and the transmission is not in park (P).

Autolock Feature (If Enabled)

The autolock feature will lock all the doors when:

- All doors are closed.
- The ignition is on.
- You shift into any gear putting your vehicle in motion.
- Your vehicle attains a speed greater than 12 mph (20 km/h).

The autolock feature repeats when:

- You open then close any door while the ignition is on and your vehicle speed is 9 mph (15 km/h) or lower.
- Your vehicle then attains a speed greater than 12 mph (20 km/h).

Autounlock Feature (If Enabled)

The autounlock unlocks all the doors when:

- The ignition is on, all the doors are closed, and your vehicle has been in motion at a speed greater than 12 mph (20 km/h).
- Your vehicle has then come to a stop and you switch the ignition off or to accessory.
- You open the driver door within 10 minutes of switching the ignition off or to accessory.

Note: *The doors will not autounlock if you electronically lock your vehicle after you switch the ignition off and before you open the driver door.*

Enabling or Disabling

Note: *You can enable or disable the autolock and autounlock features independently of each other.*

You can enable or disable these features in the information display or your authorized dealer can do it for you. See **General Information** (page 89).

Illuminated Entry

The interior lamps and select exterior lamps will illuminate when you unlock the doors with the remote entry system.

The illuminated entry system will turn off the lights if:

- The ignition is on.
- You press the remote control lock button.
- After 25 seconds of illumination.

The lights will not turn off if:

- You turn them on with the lamp control.
- Any door is open.

Illuminated Exit

The interior dome lamps, parking lamps and puddle lamps illuminate when all doors are closed and the ignition is turned off.

The lights will turn off if all the doors remain closed and:

- 25 seconds elapse.
- You press the START/STOP button.

Battery Saver

If you leave the courtesy lamps, dome lamps or headlamps on, the battery saver will shut them off 10 minutes after you switch the ignition off.

Accessory Mode Battery Saver for Intelligent Access Keys

If you leave your vehicle in the run ignition state, it will shut off once it detects a certain amount of battery drain or after 45 minutes.

Luggage Compartment Release

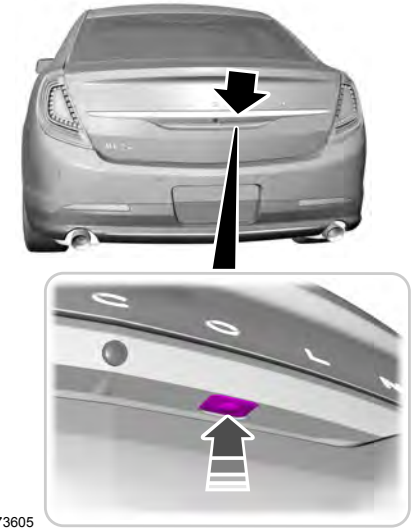
From Inside Your Vehicle

Press the button located on the instrument panel.

E173604

From Outside Your Vehicle

1. Unlock the luggage compartment with the remote control or power door lock control. The luggage compartment unlocks when you press the release button if the intelligent access transmitter is within 3 ft (1 m).



E173605

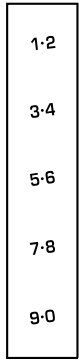
2. Press the release button.

KEYLESS ENTRY

SECURICODE™ KEYLESS ENTRY KEYPAD

The keypad is located near the driver window. It is invisible until touched and then it lights up so you can see and touch the appropriate buttons.

Note: *If you enter your entry code too fast on the keypad, the unlock function may not work. Re-enter your entry code more slowly.*



E138637

You can use the keypad to:

- Lock or unlock the doors.
- Open the luggage compartment.
- Recall memory features.
- Enable or disable the autolock and autounlock.
- Arm and disarm the anti-theft alarm.

You can operate the keypad with the factory-set five-digit entry code. The code is located on the owner's wallet card in the glove box and is available from an authorized dealer. You can also create up to five of your own five-digit personal entry codes.

Programming a Personal Entry Code

1. Enter the factory-set five-digit code.
2. Press **1·2** on the keypad within five seconds.
3. Enter your personal five-digit code. You must enter each number within five seconds of each other.
4. Press **1·2** on the keypad to save personal code 1.

The doors will lock and then unlock to confirm that programming is complete.

To program additional personal entry codes, repeat steps 1 through 3, then for step 4:

- Press **3·4** to save personal code 2.
- Press **5·6** to save personal code 3.
- Press **7·8** to save personal code 4.
- Press **9·0** to save personal code 5.

You may also program a personal entry code using the touchscreen.

Tips:

- Do not set a code that uses five of the same number.
- Do not use five numbers in sequential order.
- The factory-set five-digit code will work even if you have set your own personal code.

Recalling Memory Positions (If Equipped)

The programmed entry codes recall driver memory positions as follows:

- Entry code 1 recalls driver 1 memory positions.
- Entry code 2 recalls driver 2 memory positions.
- Entry code 3 recalls driver 3 memory positions.

Note: *Personal entry codes 4 and 5 will not recall memory positions.*

Note: *The factory-set five-digit code cannot be associated with a memory setting.*

Erasing a Personal Code

1. Enter the factory-set five-digit code.
2. Press and release **1·2** on the keypad within five seconds.
3. Press and hold **1·2** for two seconds. You must do this within five seconds of completing Step 2.

All personal codes are now erased and only the factory-set five–digit code will work.

Anti-Scan Feature

The keypad will go into an anti-scan mode if you enter the wrong code seven times (35 consecutive button presses). This mode disables the keypad for one minute and the keypad lamp will flash.

The anti-scan feature will turn off after:

- One minute of keypad inactivity.
- Pressing the unlock button on the remote control.
- Switching the ignition on.
- Unlocking your vehicle using intelligent access.

Unlocking and Locking the Doors

To Unlock the Driver Door

Enter the factory-set five-digit code or your personal code. You must press each number within five seconds of each other. The interior lamps will illuminate.

Note: *All doors will unlock if you disable the two-stage unlocking feature. See* ***Locking and Unlocking*** *(page 56).*

To Unlock All Doors

Enter the factory-set five-digit code or your personal code, then press **3·4** within five seconds.

To Lock All Doors

Press and hold **7·8** and **9·0** at the same time (with the driver door closed). You do not need to enter the keypad code first.

Displaying the Factory Set Code

Note: *You will need to have two programmed intelligent access keys for this procedure.*

To display the factory-set five-digit code in the information display:

E173591

1. Place the first programmed key in the backup slot inside the glove compartment. The key ring must be at the top with the buttons facing toward the rear.
2. Press the **START/STOP** button once and wait a few seconds.
3. Press the **START/STOP** button again and remove the key.
4. Insert the second programmed key into the backup slot, then press the **START/STOP** button.

The factory-set five-digit code will appear in the information display for a few seconds.

Note: *The code may not display until after any other warning messages first display.*

INTERIOR LUGGAGE COMPARTMENT RELEASE

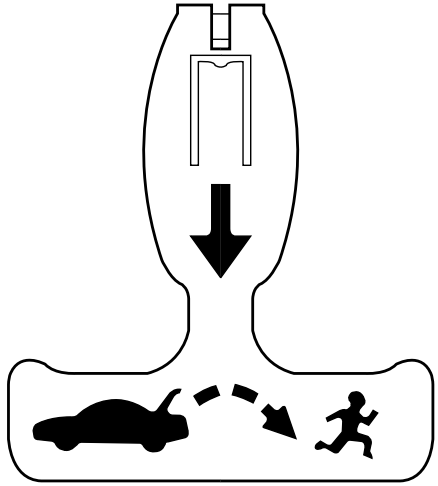
WARNINGS

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.

Do not leave children or animals unattended in the vehicle. On hot days, the temperature in the luggage compartment 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.

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

Adults should familiarize themselves with the operation and location of the release handle.



E144403

The handle is located inside the luggage compartment either on the luggage compartment door (lid) or near the tail lamps. It is composed of a material that will glow for hours in darkness following brief exposure to ambient light.

Pull the handle and push up on the luggage compartment door (lid) to open from within the luggage compartment.

PASSIVE ANTI-THEFT SYSTEM

Note: *The 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.*

Note: *Metallic objects, electronic devices or a second coded key on the same key chain may cause vehicle starting problems if they are too close to the key when starting your vehicle. Prevent these objects from touching the coded key while starting your vehicle. Switch the ignition off, move all objects on the key chain away from the coded key and restart your vehicle if a problem occurs.*

Note: *Do not leave a duplicate coded key in your vehicle. Always take your keys and lock all doors when leaving your vehicle. The system is an engine immobilization system. It will not start without a coded key programmed to your vehicle. If you use the wrong key, a message may appear in the information display.*

SecuriLock

The system helps prevent your vehicle from starting unless you use a coded key programmed to your vehicle. Using the wrong key may prevent your vehicle from starting. A message may appear in the information display.

If you are unable to start your vehicle with a correctly coded key, it is not operating properly. A message may appear in the information display.

Automatic Arming

Your vehicle arms immediately after switching the ignition off.

Automatic Disarming

Switching the ignition on with a coded key disarms your vehicle.

Replacement Keys

Note: *Your vehicle comes equipped with two intelligent access keys.*

The intelligent access key functions as a programmed key that operates the driver door lock and activates the intelligent access with push button start system, as well as a remote control.

If your programmed transmitters are lost or stolen and you do not have an extra coded key, you will need to have your vehicle towed to an authorized dealer. You need to erase the key codes from your vehicle and program new coded keys.

Store an extra programmed key away from your vehicle in a safe place to help prevent any inconveniences. Contact your authorized dealer to purchase additional spare or replacement keys.

Programming a Spare Intelligent Access Key

Note: *You can program a maximum of four intelligent access keys to your vehicle.*

You must have two previously programmed intelligent access keys inside your vehicle and the new unprogrammed intelligent access keys readily accessible. Contact an authorized dealer to have the spare key programmed if two previously programmed keys are not available.

Make sure that your vehicle is off before beginning this procedure. Make sure that you close all the doors before beginning and that they remain closed throughout the procedure. Perform all steps within 30 seconds of starting the sequence. Stop and wait for at least one minute before starting again if you perform any steps out of sequence.

Read and understand the entire procedure before you begin.

E173591

1. Place the first programmed key in the backup slot inside the glove compartment, then press the push button ignition switch.
2. Wait five seconds and then press the push button ignition switch again.
3. Remove the intelligent access key.
4. Within 10 seconds, place a second programmed intelligent access key in the backup slot. Press the push button ignition switch.
5. Wait five seconds and then press the push button ignition switch again.
6. Remove the intelligent access key.
7. Place the unprogrammed intelligent access key in the backup slot and press the push button ignition switch.

Programming is now complete. Verify the remote control functions operate and your vehicle starts with the new intelligent access key.

If programming was not successful, wait 10 seconds and repeat Steps 1 through 7. If you are still unsuccessful, take your vehicle to your authorized dealer.

ANTI-THEFT ALARM

The system will warn you of an unauthorized entry to your vehicle. Anyone opening any door, the luggage compartment or the hood without using a valid key, remote control or keyless entry keypad will set off the alarm.

The turn signal lamps will flash and sound the horn up to a total of 10 times.

Take all remote controls to an authorized dealer if there is any potential alarm problem with your vehicle.

Arming the Alarm

The alarm is ready to arm when there is not a key in the ignition. Electronically lock the vehicle to arm the alarm.

Disarming the Alarm

To disarm the alarm do any of the following:

- Press the power door unlock button within the 20-second pre-arm period.
- Unlock the doors with the keyless entry pad.
- Press the unlock button on the remote control.
- Enter the vehicle using intelligent access.
- Press the panic button on the remote control. The alarm system remains armed, but the horn and turn indicators shut off.

Note: *If the driver door is unlocked with a key, a tone will sound when you open the door and a message will appear in the information display. You will have 12 seconds to disarm the alarm using any of the actions above, otherwise the alarm goes off.*

ADJUSTING THE STEERING WHEEL

Note: *Make sure that you are sitting in the correct position. See* ***Sitting in the Correct Position*** *(page 109).*

WARNING

Do not adjust the steering wheel when your vehicle is moving.

Use the control on the side of the steering column to adjust the position.

To adjust:

- Tilt: Press the top or bottom of the control.
- Telescope: Press the front or rear of the control.

End of Travel Position

The steering column sets a stopping position just short of the end of the column position to prevent damage to the steering column. A new stopping position sets if the steering column encounters an object when tilting or telescoping.

To reset the steering column to its normal stopping position:

1. Confirm there is nothing obstructing the motion of the steering column.
2. Press and hold the steering column control until the steering column stops moving.
3. Press the steering column control again. The steering column may begin to move again.
4. When the steering column stops, continue holding the control for an additional few seconds.
5. Repeat for each direction as necessary.

A new stopping position is set. The next time you tilt or telescope the steering column, it will stop just short of the end of the column position.

Memory Feature

You can save and recall the steering column position with the memory function. See **Memory Function** (page 114).

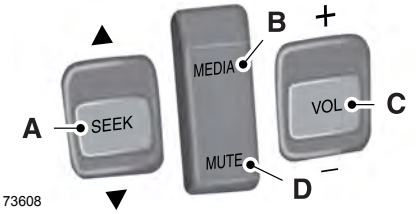
Note: *Pressing the adjustment control during memory recall cancels the operation.*

Easy Entry and Exit Feature

When you switch the ignition off, the steering column will move to allow extra room to exit your vehicle. The column will return to the previous setting when you switch the ignition on. You can enable or disable this feature in the information display. See **Information Displays** (page 89).

AUDIO CONTROL

You can operate the following functions with the control:



A Seek up and down or next.
B Media.
C Volume up or down.
D Mute.

MEDIA

Press repeatedly to scroll through available audio modes.

Seek, Next or Previous

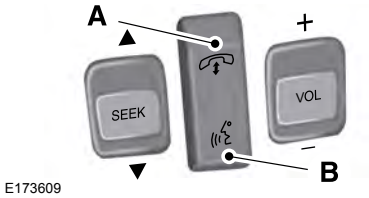
Press the seek button to:

- Tune the radio to the next or previous stored preset.
- Play the next or the previous track.

Press and hold the seek button to:

- Tune the radio to the next station up or down the frequency band.
- Seek through a track.

VOICE CONTROL

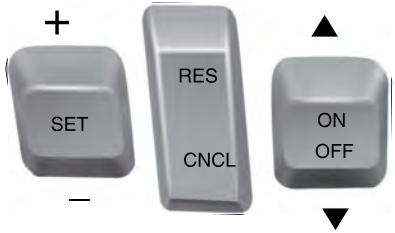


A Phone mode.
B Voice recognition.

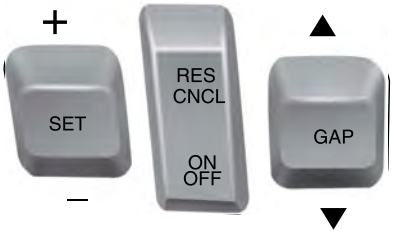
See your SYNC information.

CRUISE CONTROL

Type 1



Type 2



E173611

See **Cruise Control** (page 166).

INFORMATION DISPLAY CONTROL

E173617

See **Information Displays** (page 89).

HEATED STEERING WHEEL (If Equipped)

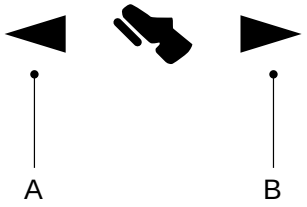
See your SYNC information.

ADJUSTING THE PEDALS

WARNING

Never use the controls while your feet are on the accelerator and brake pedals and the vehicle is moving.

You can find the control on the left side of the steering column. Press and hold the appropriate side of the control to move the pedals.



E162916

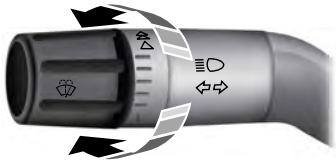
A. Farther

B. Closer

You can save and recall the pedal positions with the memory feature. See **Memory Function** (page 114).

Note: *Adjust the pedals only when your vehicle is in* ***P*** *(Park).*

WINDSHIELD WIPERS



E173262

Rotate the end of the control away from you to increase the speed of the wipers. Rotate toward you to decrease the speed of the wipers.

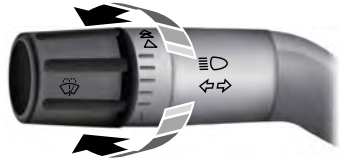
Note: *Fully defrost the windshield before switching on the windshield wipers.*

Note: *Make sure you switch off the windshield wipers before entering a car wash.*

Note: *Clean the windshield and wiper blades if they begin to leave streaks or smears. If that does not resolve the issue, install new wiper blades.*

Note: *Do not operate the wipers on a dry windshield. This may scratch the glass, damage the wiper motor to burn out. Always use the windshield washers before wiping a dry windshield.*

AUTOWIPERS



E173262

Adjust the rotary control to increase or decrease the sensitivity of the rain sensor. On the lowest sensitivity setting, the wipers turn on when there is a large amount of moisture on the windshield. On the highest sensitivity setting, the wipers turn on when there is a small amount of moisture on the windshield.

Autowipers uses a rain sensor, located near the interior mirror. The rain sensor monitors the amount of moisture on the windshield. It turns on the wipers and adjusts the wiper speed by the amount of moisture that the sensor detects on the windshield. You can turn this feature on and off in the information display. See **General Information** (page 89).

Keep the outside of the windshield clean. The rain sensor is very sensitive. If the area around the mirror is dirty, then the wipers may operate if dirt, mist or insects hit the windshield.

Note: *Fully defrost the windshield before you switch on the windshield wipers.*

Note: *Make sure you switch off the windshield wipers before entering a car wash.*

Note: *Clean the windshield and wiper blades if they begin to leave streaks or smears. If that does not resolve the issue, install new wiper blades.*

Note: *If you switch autolamps on in conjunction with autowipers, your low beam headlamps will turn on automatically when the rain sensor turns on the windshield wipers continuously.*

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Note: *Wet or winter driving conditions with ice, snow or salty road mist can cause inconsistent and unexpected wiping or smearing.*

In these conditions, you can do the following to help keep your windshield clear:

- Lower the sensitivity of the autowipers to reduce the amount of smearing.
- Adjust the rotary control to normal or high-speed wipe.
- Switch off the autowipers.

WINDSHIELD WASHERS

E173263

Press the end of the stalk to operate the washer.

- A brief press causes a single wipe without washer fluid.
- A quick press and hold causes the wipers to swipe three times with washer fluid.
- A long press and hold will operate the wipers and washer fluid for a short time.

A wipe will occur a few seconds after washing to clear any remaining washer fluid. This feature can be switched on or off in the information display. See **General Information** (page 89).

Note: *Do not operate the washers when the washer reservoir is empty. This may cause the washer pump to overheat.*

GENERAL INFORMATION

Condensation in Lamp Assemblies

Exterior lamps have vents to accommodate normal changes in air pressure.

Condensation can be a natural by-product of this design. When moist air enters the lamp assembly through the vents, there is a possibility that condensation can occur when the temperature is cold. When normal condensation occurs, a fine mist can form on the interior of the lens. The fine mist eventually clears and exits through the vents during normal operation.

Clearing time may take as long as 48 hours under dry weather conditions.

Examples of acceptable condensation are:

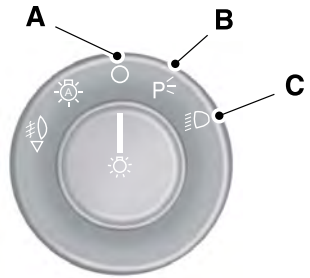
- The presence of a fine mist (no streaks, drip marks or large droplets).
- A fine mist covers less than 50% of the lens.

Examples of unacceptable condensation are:

- A water puddle inside the lamp.
- Streaks, drip marks or large droplets present on the interior of the lens.

If you see any unacceptable condensation, have your vehicle checked by an authorized dealer.

LIGHTING CONTROL



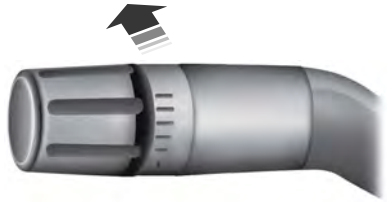
E173257

A Off.

B Parking lamps, instrument panel lamps, license plate lamps and tail lamps.

C Headlamps.

High Beams

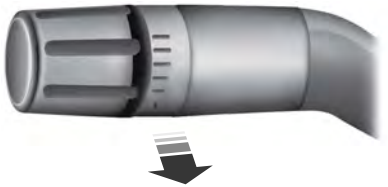


E167827

Push the lever away from you to switch the high beam on.

Push the lever away from you again or pull the lever toward you to switch the high beam off.

Headlamp Flasher



E163268

Slightly pull the lever toward you and release it to flash the headlamps.

AUTOLAMPS

WARNING

The autolamps switch position may not activate the headlamps in all low visibility conditions, such as daytime fog. Make sure the headlamps are switched to auto or on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

E173258

When the lighting control is in the autolamps position, the headlamps automatically turn on in low light situations or when the wipers activate.

If equipped, the following also activate when the lighting control is in the autolamps position and you switch them on in the information display:

- Configurable daytime running lamps.
- Automatic high beam control.
- Adaptive headlamp control.

The headlamps remain on for a period of time after you switch the ignition off. Use the information display controls to adjust the period of time that the headlamps remain on. See **Information Displays** (page 89).

Note: *With the headlamps in the autolamps position, you cannot switch the high beam headlamps on until the autolamps system turns the low beam headlamps on.*

Windshield Wiper Activated Headlamps

The windshield wiper activated headlamps turn on within 10 seconds when you switch the windshield wipers on and the lighting control is in the autolamps position. They turn off approximately 60 seconds after you switch the windshield wipers off.

The headlamps do not turn on by wiper activation:

- During a mist wipe.
- When the wipers are on to clear washer fluid during a wash condition.
- If the wipers are in intermittent mode.

Note: *If you switch autolamps and autowipers on, the headlamps will automatically turn on when the windshield wipers continuously operate.*

INSTRUMENT LIGHTING DIMMER

Note: *If you disconnect and connect the battery, or fully discharge and charge the battery, the lighting level will switch to the maximum setting.*

E173259

Use the instrument lighting dimmer to adjust the brightness of the instrument panel and all applicable lighting in your vehicle.

- Tap the top or bottom of the control to the first detent to brighten or dim all interior lighting incrementally.
- Press and hold the top or bottom of the control to the first detent until you reach the desired lighting level.
- Press and hold the top of the control to the second detent to switch the interior lights on.
- Press and hold the bottom of the control to the second detent to switch the interior lights off.

HEADLAMP EXIT DELAY

After you switch the ignition off, you can switch the headlamps on by pulling the direction indicator lever toward you. You will hear a short tone. The headlamps will switch off automatically after three minutes with any door open or 30 seconds after the last door has been closed. You can cancel this feature by pulling the direction indicator toward you again or switching the ignition on.

DAYTIME RUNNING LAMPS (If Equipped)

WARNING

Always remember to switch your headlamps on in low light situations or during inclement weather. The system does not activate the tail lamps and may not provide adequate lighting during these conditions. Failure to activate your headlamps under these conditions may result in a collision.

The system switches the signature lamps on in day light conditions.

To switch the system on, switch the ignition on, and switch the lighting control to the off, autolamp, or parking lamp position.

AUTOMATIC HIGH BEAM CONTROL (If Equipped)

The system will automatically turn on your high beams if it is dark enough and no other traffic is present. When it detects the headlights of an approaching vehicle, the tail lamps of the preceding vehicle or street lighting, the system will turn off the high beams before they distract other drivers. The low beams remain on.

Note: *If it appears that automatic control of the high beams is not functioning properly, check the windshield in front of the camera for a blockage. A clear view of the road is required for proper system operation. Have any windshield damage in the area of the camera's field-of-view repaired.*

Note: *If the system detects a blockage such as bird droppings, bug splatter, snow or ice, and you do not observe changes, the system will go into low beam mode until you clear the blockage. A message may also appear in the instrument cluster display noting the front camera is blocked.*

Note: *Typical road dust, dirt and water spots will not affect the performance of the automatic high beam system. However, in cold or inclement weather conditions, you will notice a decrease in the availability of the high beam system, especially at start up. If you want to change the beam state independently of the automatic control, you may switch the high beams on or off using the lever. Automatic control will resume when conditions are correct.*

Note: *Modification of the vehicle ride height such as using much larger tires, may degrade feature performance.*

A camera sensor, centrally mounted behind the windshield of your vehicle, continuously monitors conditions to decide when to turn the high beams off and on.

Once the system is active, the high beams will turn on if:

- The ambient light level is low enough.
- There is no traffic in front of the vehicle.
- The vehicle speed is greater than 32 mph (52 km/h).

The high beams will turn off if:

- The system detects the headlamps of an approaching vehicle or the tail lamps of a preceding vehicle.
- Vehicle speed falls below 27 mph (44 km/h).
- The ambient light level is high enough that high beams are not required.
- The system detects severe rain, snow or fog.
- The camera is blocked.

Activating the System

Switch on the system using the information display and autolamps. See **Information Displays** (page 89).

Switch the lighting control to the autolamps position.

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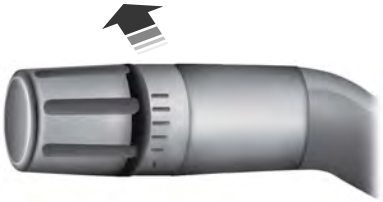
Manually Overriding the System



E167827

When the automatic control has activated the high beams, pushing or pulling the stalk will provide a temporary override to low beam.

Use the information display menu to permanently deactivate the system, or switch the lighting control from autolamps to headlamps.

FRONT FOG LAMPS

E193834

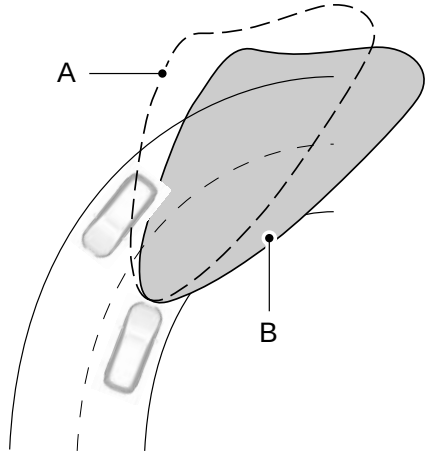
Pull the lighting control toward you to switch the fog lamps on.

You can switch the fog lamps on when the lighting control is in any position except Off and the high beams are not on.

ADAPTIVE HEADLAMPS

The headlamp beams move in the same direction as the steering wheel. This provides more visibility when driving around curves.

A. Without adaptive headlamps.
B. With adaptive headlamps.



E161714

The system only works with the lighting control in the autolamp position.

Note: *There is a delay of two to five seconds before the system operates when you drive your vehicle.*

Note: *The system is only active at speeds above 3 mph (5 km/h).*

The system has a power-up movement check feature. When your start your vehicle, the lamps track left to right, then back to center to alert the driver that the system is working properly.

DIRECTION INDICATORS

E163272

- To operate the left-hand direction indicator, push the lever down until it stops.
- To operate the right-hand direction indicator, push the lever up until it stops.
- To manually cancel direction indicator operation, push the lever again in either direction.

Lane Change

To indicate a left or right lane change:

- Push the lever up or down to the first stop position and release. The direction indicator will flash three times and stop.
- Push the lever up or down to the first stop position and hold. The direction indicator will flash for as long as you hold the lever in this position.

INTERIOR LAMPS

The lamps will switch on when you have met one of the following conditions:

- You open any door.
- You press a remote control button.
- You press the outer edge of the clear lens on the front row map lamp.

Front Row Map Lamps

E166237

To switch on the map lamps, press the outer edge of the clear lens.

The front row map lamp will automatically turn on when:

- Any door is opened.
- You press and hold the top of the instrument lighting dimmer switch past the first detent.
- You press any of the remote entry controls and the ignition is in the off position.

Second Row Map Lamps

E173272

The second row lamps light when:

- Any door is open.
- You press and hold the top of the instrument lighting dimmer switch past the first detent.
- You press any of the remote entry controls and the ignition is in the off position.

Press the lamp lens to activate the reading lamps.

AMBIENT LIGHTING

Adjust the ambient lighting using the touchscreen.

POWER WINDOWS

WARNINGS

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

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

E146043

Note: *You may hear a pulsing noise when just one of the windows is open. Lower the opposite window slightly to reduce this noise.*

Press the switch to open the window.

Lift the switch to close the window.

One-Touch Down

Press the switch fully and release it. Press again or lift it to stop the window.

One-Touch Up

Lift the switch fully and release it. Press or lift it again to stop the window.

Bounce-Back

The window will stop automatically while closing. It reverses some distance if there is an obstacle in the way.

Overriding the Bounce-Back Feature

WARNING

When you override the bounce-back feature the window will not reverse if it detects an obstacle. Take care when closing the windows to avoid personal injury or damage to your vehicle.

Pull up the window switch and hold within a few seconds of the window reaching the bounce-back position. The window travels up with no bounce-back protection. The window stops if you release the switch before the window closes fully.

Window Lock

E144072

Press the control to lock or unlock the rear window controls. It will illuminate when you lock the rear window controls.

Accessory Delay

You can use the window switches for several minutes after you switch the ignition off or until you open either front door.

GLOBAL OPENING AND CLOSING

You can use the remote control to operate the windows with the ignition off.

Note: *You can enable or disable this feature in the information display or see an authorized dealer. See* ***General Information*** *(page 89).*

Note: *To operate this feature, accessory delay must not be active.*

Opening the Windows

You can only open the windows for a short time after you unlock your vehicle with the remote control. After you unlock your vehicle, press and hold the remote control unlock button to open the windows and vent the moonroof. Release the button once movement starts. Press the lock or unlock button to stop movement.

Closing the Windows

WARNING

When closing the windows and moonroof, you should verify they are free of obstructions and make sure that children and pets are not in the proximity of the window openings.

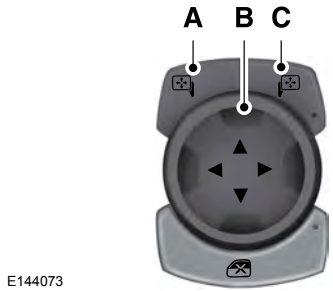
To close the windows and moonroof, press and hold the remote control lock button. Release the button once movement starts. Press the lock or unlock button to stop movement.

EXTERIOR MIRRORS

Power Exterior Mirrors

WARNING

Do not adjust the mirrors when your vehicle is moving.



E144073

A Left-hand mirror
B Adjustment control
C Right-hand mirror

To adjust a mirror:

1. Select the mirror you want to adjust. The control will illuminate.
2. Adjust the position of the mirror.
3. Press the mirror switch again.

Fold-Away Exterior Mirrors

Push the mirror toward the door window glass. Make sure that you fully engage the mirror in its support when returning it to its original position.

Heated Exterior Mirrors

See **Heated Windows and Mirrors** (page 107).

Memory Mirrors

You can save and recall the mirror positions through the memory function. See **Memory Function** (page 114).

Auto-Dimming Feature

The driver's exterior mirror will automatically dim when the interior auto-dimming mirror is activated.

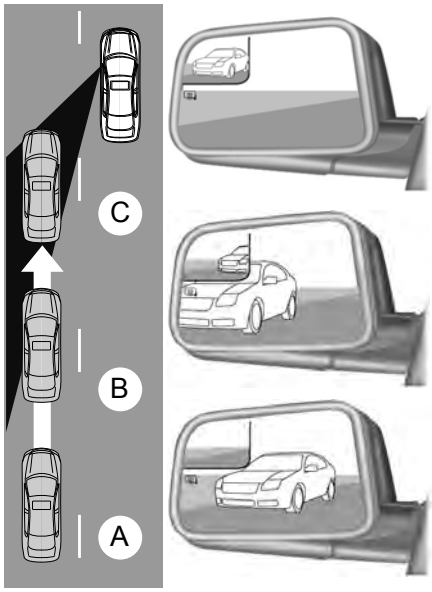
Integrated Blind Spot Mirrors (If Equipped)

WARNING

Objects in the blind spot mirror are closer than they appear.

Blind spot mirrors have an integrated convex mirror built into the upper outboard corner of the exterior mirrors. They are designed to increase your visibility along the side of your vehicle.

Check the main mirror first before a lane change, then check the blind spot mirror. If no vehicles are present in the blind spot mirror and the traffic in the adjacent lane is at a safe distance, signal that you intend to change lanes. Glance over your shoulder to verify traffic is clear and carefully change lanes.



E138665

The image of the approaching vehicle is small and near the inboard edge of the main mirror when it is at a distance. The image becomes larger and begins to move outboard across the main mirror as the vehicle approaches (A). The image will transition from the main mirror and begin to appear in the blind spot mirror as the vehicle approaches (B). The vehicle will transition to your peripheral field of view as it leaves the blind spot mirror (C).

Blind Spot Monitor (If Equipped)

See **Blind Spot Information System** (page 179).

INTERIOR MIRROR

WARNING

Do not adjust the mirror when your vehicle is moving.

Note: *Do not clean the housing or glass of any mirror with harsh abrasives, fuel or other petroleum or ammonia-based cleaning products.*

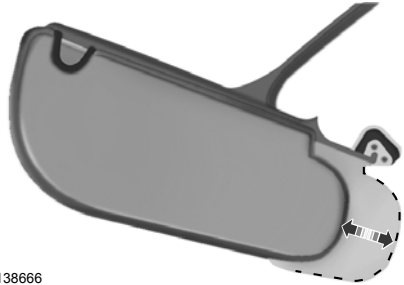
You can adjust the interior mirror to your preference. Some mirrors also have a second pivot point. This lets you move the mirror head up or down and from side to side.

Auto-Dimming Mirror

Note: *Do not block the sensors on the front and back of the mirror. Mirror performance may be affected. A rear center passenger or raised rear center head restraint may also block light from reaching the sensor.*

The mirror will dim automatically to reduce glare when bright lights are detected from behind your vehicle. It will automatically return to normal reflection when you select reverse gear to make sure you have a clear view when backing up.

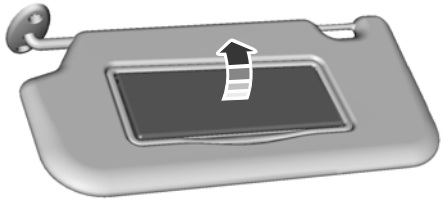
SUN VISORS



E138666

Rotate the sun visor toward the side window and extend it rearward for extra shade.

Illuminated Vanity Mirror



E162197

Lift the cover to switch the lamp on.

SUN SHADES (If Equipped)

Note: *Do not try to move the sun shade manually.*

The power rear sun shade covers the rear window of the vehicle.

E187440

The control is on the center console.

The sun shade has a one-touch up and down feature. Press and release the control to move the sun shade. To stop motion, press the control a second time.

The sun shade automatically retracts when you shift the transmission into reverse (R).

MOONROOF (If Equipped)

WARNINGS

Do not let children play with the moonroof or leave them unattended in the vehicle. They may seriously hurt themselves.

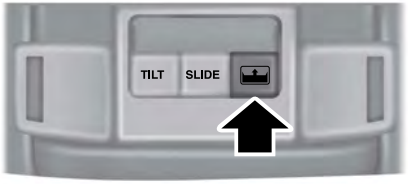
WARNINGS

When closing the dual panel moonroof, you should verify that it is free of obstructions and make sure that children and pets are not in the proximity of the roof opening.

The moonroof and sunscreen controls are on the overhead console.

The moonroof and sunscreen have a one-touch open and close feature. To stop the motion during a one-touch operation, touch the control a second time.

Opening and Closing the Sunscreen



E187439

Press and release the control to open the sunscreen.

Note: *The sunscreen stops at the first panel for the dual panel moonroof. Press and release the control again to continue opening the sunscreen past the second panel.*

Pull and release the control to close the sunscreen. If open, the moonroof automatically closes prior to the sunscreen closing.

Opening and Closing the Moonroof

Press and release the SLIDE control to open the moonroof. The sunscreen, if closed, automatically opens prior to the moonroof opening.

Pull and release the SLIDE control to close the moonroof.

Bounce-Back

The moonroof automatically stops closing and reverses if it detects an obstacle when closing.

To override the bounce-back function, pull and hold the SLIDE control within two seconds of a bounce-back event. In this case, the closing force begins to increase each of the next three times the moonroof closes.

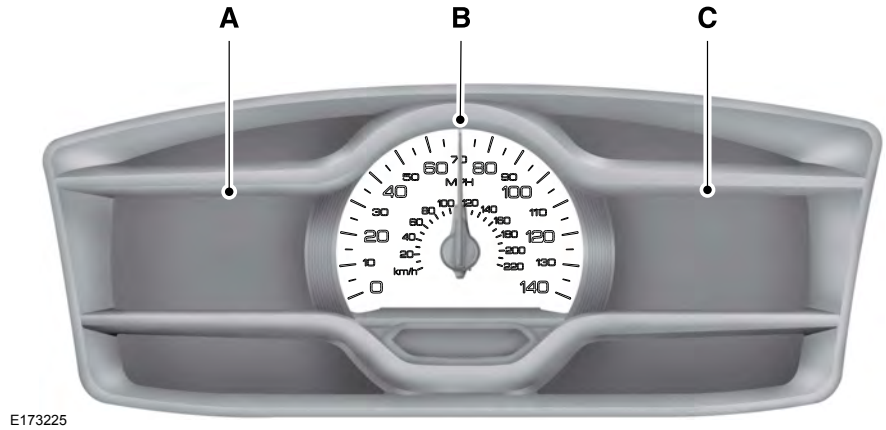
Venting the Moonroof

Press and release the TILT control to vent the moonroof.

Pull and release the TILT control to close the moonroof.

GAUGES

Note: *Cluster shown in standard measure – metric clusters similar.*



A Left information display. See **General Information** (page 89).

B Speedometer

C Right information display.

WARNING LAMPS AND INDICATORS

The following warning lamps and indicators will alert you to a vehicle condition that may become serious. Some lamps will illuminate when you start your vehicle to make sure they work. If any lamps remain on after starting your vehicle, refer to the respective system warning lamp for further information.

Note: *Some warning indicators appear in the information display and function the same as a warning lamp, but do not display when you start your vehicle.*

Adaptive Cruise Control (If Equipped)

The speed control system indicator light changes color to indicate what mode the system is in: See **Using Adaptive Cruise Control** (page 167).

On (white light): Illuminates when the adaptive cruise control system is turned on. Turns off when the speed control system is turned off.

Engaged (green light): Illuminates when the adaptive cruise control system is engaged. Turns off when the speed control system is disengaged.

Anti-Lock Braking System

If it illuminates when you are driving, this indicates a malfunction. You will continue to have the normal braking system (without ABS) unless the brake system warning lamp is also illuminated. Have the system checked by your authorized dealer.

Battery

If it illuminates while driving, it indicates a malfunction. Switch off all unnecessary electrical equipment and have the system checked by your authorized dealer immediately.

Brake System

It will illuminate when you engage the parking brake with the ignition on.

If it illuminates when you are driving, check that the parking brake is not engaged. If the parking brake is not engaged, this indicates low brake fluid level or a brake system malfunction. Have the system checked immediately by your authorized dealer.

WARNING

Driving your vehicle with the warning lamp on is dangerous. A significant decrease in braking performance may occur. It will take you longer to stop your vehicle. Have your vehicle checked by your authorized dealer immediately. Driving extended distances with the parking brake engaged can cause brake failure and the risk of personal injury.

Cruise Control (If Equipped)

It will illuminate when you switch this feature on.

Direction Indicator

Illuminates when the left or right turn signal or the hazard warning flasher is turned on. If the indicators stay on or flash faster, check for a burned out bulb. See **Changing a Bulb** (page 259).

Door Ajar

Displays when the ignition is on and any door is not completely closed.

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. See **Engine Coolant Check** (page 247).

Engine Oil

If it illuminates with the engine running or when you are driving, this indicates a malfunction. Stop your vehicle as soon as it is safe to do so and switch the engine off. Check the engine oil level. See **Engine Oil Check** (page 245).

Note: *Do not resume your journey if it illuminates despite the level being correct. Have the system checked by your authorized dealer immediately.*

Fasten Safety Belt

It will illuminate and a chime will sound to remind you to fasten your safety belt. See **Seatbelt Reminder** (page 33).

Front Airbag

If it fails to illuminate when you start your vehicle, continues to flash or remains on, it indicates a malfunction. Have the system checked by your authorized dealer.

Front Fog Lamps (If Equipped)

Lights when you switch the front fog lamps on.

Grade Assist (If Equipped)

It will illuminate when the grade assist function has been turned on.

Heads Up Display (If Equipped)

A red beam of lights will illuminate on the windshield in certain instances when using adaptive cruise control and/or the collision warning system. It will also illuminate momentarily when you start your vehicle to make sure the display works.

High Beam

It will illuminate when you switch the high beam headlamps on. It will flash when you use the headlamp flasher.

Low Fuel Level

It will illuminate when the fuel level is low or the fuel tank is nearly empty. Refuel as soon as possible.

Low Tire Pressure Warning

It will illuminate when your tire pressure is low. If the lamp remains on with the engine running or when driving, check your tire pressure as soon as possible.

It will also illuminate momentarily when you switch the ignition on to confirm the lamp is functional. If it does not illuminate when you switch the ignition on, or begins to flash at any time, have the system checked by your authorized dealer.

Low Washer Fluid

It will illuminate when the windshield washer fluid is low.

Parking Lamps

It will illuminate when you switch the parking lamps on.

Powertrain Fault

Illuminates when a powertrain or an AWD fault has been detected. Contact your authorized dealer as soon as possible.

Service Engine Soon

If the service engine soon indicator light stays illuminated after the engine is started, it indicates that the On Board Diagnostics system (OBD) has detected a malfunction of the vehicle emissions control system. Refer to On board diagnostics (OBD) in the Fuel and Refueling chapter for more information about having your vehicle serviced. See **Emission Control System** (page 137).

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.

WARNING

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. Have an authorized dealer service your vehicle immediately.

The service engine soon indicator light illuminates when the ignition is first turned on prior to engine start to check the bulb and to indicate whether the vehicle is ready for Inspection/Maintenance (I/M) testing.

Normally, the service engine soon light will stay on until the engine is cranked, then turn itself off if no malfunctions are present. However, if after 15 seconds the service engine soon light blinks eight times, it means that the vehicle is not ready for I/M testing. See **Emission Control System** (page 137).

Stability Control

It will flash when the system is active. If it remains illuminated or does not illuminate when you switch the ignition on, this indicates a malfunction. During a malfunction the system will switch off. Have the system checked by your authorized dealer immediately. See **Using Stability Control** (page 155).

Stability Control Off

It will illuminate when you switch the system off. It will go out when you switch the system back on or when you switch the ignition off. See **Using Stability Control** (page 155).

AUDIBLE WARNINGS AND INDICATORS

Keyless Warning Alert

The horn will sound twice when you exit your vehicle with the intelligent access key and your vehicle is in RUN, indicating your vehicle is still on.

Headlamps On Warning Chime

Sounds when you remove the key from the ignition and open the driver's door and you have left the headlamps or parking lamps on.

Parking Brake On Warning Chime

Sounds when you have left the parking brake on and drive your vehicle. If the warning chime remains on after you have released the parking brake, have the system checked by your authorized dealer immediately.

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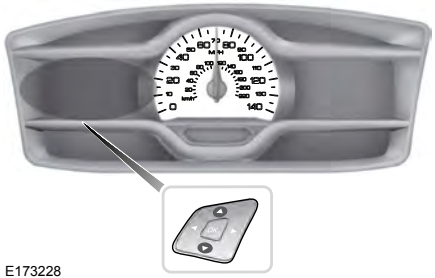
GENERAL INFORMATION

WARNING

Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Various systems on your vehicle can be controlled using the information display controls on the steering wheel. Corresponding information is displayed in the information display.

Information Display Controls



E173228

- Press the up and down arrow buttons to scroll through and highlight the options within a menu.
- Press the right arrow button to enter a sub-menu.
- Press the left arrow button to exit a menu.
- Press and hold the left arrow button at any time to return to the main menu display (escape button).
- Press the OK button to choose and confirm settings or messages.

This icon gives you the ability to switch a feature on or off. A check in the box indicates the feature is enabled, and unchecked indicates the feature is disabled.

Main menu

From the main menu bar on the left side of the information display, you can choose from the following categories:

Scroll up or down to highlight one of the categories and then press the right arrow key or OK to enter into that category. Press the left arrow key as needed to exit back to the main menu.

- Display Mode
- Trip 1 & 2
- Fuel Economy
- Driver Assist
- Settings

Display Mode

Use the up or down arrow buttons to choose between the following display options.

Display Mode	
Option 1	XXX mi (km) to empty, Fuel gauge and Total odometer
Option 2	Round tachometer, Fuel gauge and Total odometer
Option 3	Round tachometer, Engine coolant temp gauge, Fuel gauge and Total odometer
Option 4	Digital speedometer, Fuel gauge and Total odometer
Regardless of display mode chosen, when you use the SelectShift Automatic™ transmission (SST), the cluster will change to the round tachometer if not already selected.	

XXX mi (km) to empty

Shows approximate fuel level before the fuel tank reaches empty. The value is dynamic and can change (raise or lower) depending on driving style.

Fuel gauge

Switch the ignition on. The fuel gauge will indicate approximately how much fuel is in the fuel tank. The arrow next to the fuel pump symbol shows the fuel filler door side of your vehicle. When the fuel level becomes low, the level indicator will change to amber. When the fuel level becomes critically low, the level indicator will change to red.

Note: *The fuel gauge level may vary slightly when your vehicle is moving or when driving on a slope.*

Note: *When a MyKey® is in use, low fuel warnings will display earlier.*

Round tachometer

Indicates the engine speed in revolutions per minute. Driving with your tachometer pointer continuously at the top of the scale may damage the engine. During SelectShift Automatic™ transmission (SST) use, the currently selected gear will appear in the display.

Engine coolant temperature gauge

Indicates engine coolant temperature. At normal operating temperature, the level indicator will be in the normal range. If the engine coolant temperature exceeds the normal range, stop your vehicle as soon as safely possible, switch off the engine and let the engine cool.

Trip 1 & 2

Choose between the following trip displays.

Trip 1 & 2
Trip distance
Average fuel economy
Elapsed trip time
Hold OK to Reset

Note: *Press and hold OK to reset the currently displayed trip information.*

Trip distance

Shows the accumulated trip distance.

Average fuel economy

Shows the average fuel economy for a given trip.

Elapsed trip time

When you switch off your vehicle the timer stops and restarts when you restart your vehicle.

Fuel Economy

Use the left or right arrow buttons to choose the desired fuel economy display.

Fuel Economy
Inst Fuel Economy
30 Min Fuel History

Note: *Press and hold OK to reset the currently displayed fuel usage information.*

Inst Fuel Economy

This display shows a visual graph of your instantaneous fuel economy.

30 Min Fuel History

This display shows a bar chart of your fuel history.

Driver Assist

Use the up or down arrow buttons to choose between the following display options.

Note: *Some items are optional and may not appear.*

Driver Assist		
Traction Control		
Blindspot		
Collision Warn	Sensitivity	High, Normal or Low
Cross Traffic		
Cruise Control	Adaptive or Normal	—
Driver Alert		
Front Park Aid		
Lane Keeping	Mode	Alert, Aid or Both
	Intensity	High, Normal or Low
Rear Park Aid		

Settings

In this mode, you can configure different driver setting choices.

Note: *Some items are optional and may not appear.*

Settings				
Vehicle	Drive Control	Handling in D	Comfort, Normal or Sport	
		Handling in S	Normal or Sport	
	Auto Engine Off			
	DTE Calculation	Normal or Towing		
	Easy Entry / Exit			
	Lighting	Auto Highbeam		
		Autolamp Delay	Select time interval	
	Locks	Autolock		
		Autounlock		
		Remote Unlocking	All Doors or Driver's Door	
	Oil Life Reset	Remaining Life XXX% - Hold OK to Reset		
	Remote Start	Climate Control		Auto or Last Settings
		Front Seats Front Seats and Steering Wheel		Auto Heated or Off
		Duration		5, 10 or 15 minutes
		System		
	Windows	Remote Open		

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Settings		
		Remote Close
	Wipers	Courtesy Wipe
		Rain Sensing
MyKey	Mykey Status	MyKeys and Admin Keys
	Create MyKey	Hold OK to Create MyKey
	911 Assist	Always On or User Selectable
	Traction Control	
	Max Speed	Choose desired speed or off
	Speed Minder	
	Volume Limiter	
	Do Not Disturb	Always On or User Selectable
	Clear MyKeys	Hold OK to Clear All MyKeys
Display Settings	Distance	Miles & GAL, l/100km or km/l
	Gauge Display	Fuel Gauge or Fuel + Tach
	Language	Choose your applicable setting - Hold OK to Set
	Temperature	Fahrenheit (ºF) or Celsius (ºC)

Note: *Some MyKey items will only appear if a MyKey is set.*

INFORMATION MESSAGES

Note: *Depending on the vehicle options equipped with your vehicle, not all of the messages will display or be available. Certain messages may be abbreviated or shortened depending upon which cluster type you have.*

E173229

Press the OK button to acknowledge and remove some messages from the information display. Other messages will be removed automatically after a short time.

Certain messages need to be confirmed before you can access the menus.

Adaptive Cruise Control

Message	Action
Adaptive Cruise Malfunction	A radar malfunction is preventing the adaptive cruise from engaging. See **Using Adaptive Cruise Control** (page 167).
Adaptive Cruise Not Available	Conditions exist such that the adaptive cruise cannot function properly. See **Using Adaptive Cruise Control** (page 167).
Adaptive Cruise Not Available Sensor Blocked See Manual	The radar is blocked because of poor radar visibility due to bad weather or ice/mud/water in front of radar. Driver can typically clean the sensor to resolve. See **Using Adaptive Cruise Control** (page 167).

AdvanceTrac™

Message	Action
Service AdvanceTrac	The system detects a malfunction due to a blocked sensor.
AdvanceTrac Off On	The traction control has been disabled or enabled by the driver.

Alarm

Message	Action
Vehicle Alarm To Stop Alarm, Start Vehicle.	The alarm has been triggered due to unauthorized entry. See **Anti-Theft Alarm** (page 64).

Automatic Engine Shutdown

Message	Action
Engine Shuts Off In {seconds to shut off:#0} Seconds	The engine is getting ready to shut off.
Engine Shut Off For Fuel Economy	The engine has shut off to help increase fuel economy.
Engine Shuts Off in {seconds to shut off:#0} Seconds Press Ok to Override	The engine is getting ready to shut off. You can press OK on the left steering wheel button to override the shut down.

AWD

Message	Action
AWD OFF	The all-wheel drive system has automatically disabled itself due to the system overheating or you are using the spare tire. The all-wheel drive system will resume normal function and clear this message after cycling the ignition and driving a short distance with the road tire re-installed or after the system cools.
Check AWD	The all-wheel drive system is not operating properly and the powertrain fault indicator is illuminated. See **Warning Lamps and Indicators** (page 85). If the warning stays illuminated or continues to illuminate, contact an authorized dealer as soon as possible.

Battery and Charging System

Message	Action
Check Charging System	The charging system needs servicing. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.
Turn Power Off To Save Battery	The battery management system determines that the battery is at a low state of charge. Turn the ignition off as soon as possible to protect the battery. This message will clear once the vehicle has been started and the battery state of charge has recovered. Turning off unnecessary electrical loads will allow faster battery state-of-charge recovery.

Blind Spot Information and Cross Traffic Alert System

Message	Action
Blindspot System Fault	A fault with the system has occurred. Contact an authorized dealer as soon as possible.
Blindspot Not Available Sensor Blocked See Manual	The system sensors are blocked. Contact an authorized dealer as soon as possible. See **Blind Spot Information System** (page 179).
Vehicle Coming From X	The system detects a vehicle. See **Blind Spot Information System** (page 179).
Cross Traffic Not Available Sensor Blocked See Manual	The blind spot information system and cross traffic alert system sensors are blocked. See **Blind Spot Information System** (page 179).
Cross Traffic System Fault	A fault with the system has occurred. Contact an authorized dealer as soon as possible.

Brake System

Message	Action
Brake Fluid Level Low	The brake fluid level is low and the brake system should be inspected immediately. See **Brake Fluid Check** (page 254).
Check Brake System	The brake system needs servicing. Stop the vehicle in a safe place. Contact an authorized dealer.
Park Brake Engaged	The parking brake is set, the engine is running and you drive your vehicle more than 3 mph (5 km/h). If the warning stays on after the parking brake is released, contact an authorized dealer as soon as possible.

Collision Warning System

Message	Action
Collision Warning Malfunction	There is a system malfunction with the collision warning system. The system will be disabled. Contact an authorized dealer as soon as possible.
Collision Warning Not Available Sensor Blocked See Manual	The collision warning system radar is blocked because of poor radar visibility due to bad weather or ice/mud/water in front of the radar. Driver can typically clean the sensor to resolve. Contact an authorized dealer as soon as possible.
Collision Warning Not Available	There is a system malfunction with the collision warning system. The system will be disabled. Contact an authorized dealer as soon as possible.

Doors and Locks

Message	Action
X Door Ajar	The door listed is not completely closed.
Trunk Ajar	The luggage compartment is not completely closed.
Engine ON	The driver's door is opened, your vehicle is in park and the engine is on.

Fuel

Message	Action
Fuel Level Low	An early reminder of a low fuel condition.
Check Fuel Fill Inlet	The fuel fill inlet may not be properly closed.

Keys and Intelligent Access

Message	Action
To START Press Brake	A reminder to press the brake while starting your vehicle.
No Key Detected	The key is not detected by the system. See **Keyless Starting** (page 127).
Restart Now or Key is Needed	The Start Stop button is pressed to shut off the engine and an Intelligent Access key is not detected inside your vehicle.
Accessory Power is Active	Your vehicle is in the accessory ignition state.

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Message	Action
Starting System Fault	There is a problem with your vehicle's starting system. See an authorized dealer for service.
Key Programmed x Keys Total	During spare key programming, an intelligent access key is programmed to the system.
Max Number of Keys Learned	During spare key programming, the maximum number of keys have been programmed.

Lane Keeping System

Message	Action
Lane Keeping Sys. Malfunction Service Required	The system has malfunctioned. Contact an authorized dealer as soon as possible.
Front Camera Temporarily Not Available	The system has detected a condition that has caused the system to be temporarily unavailable.
Front Camera Low Visibility Clean Screen	The system has detected a condition that requires the windshield to be cleaned to operate properly.
Front Camera Malfunction Service Required	The system has malfunctioned. Contact an authorized dealer as soon as possible.
Keep Hands on Steering Wheel	The system requests the driver to keep their hands on the steering wheel.

Maintenance

Message	Action
Low Engine Oil Pressure	Stop your vehicle as soon as safely possible, turn off the engine. Check the oil level. If the warning stays on or continues to come on with your engine running, contact an authorized dealer as soon as possible.
Change Engine Oil Soon	The engine oil life remaining is 10% or less. See **Engine Oil Check** (page 245).
Oil Change Required	The oil life left reaches 0%. See **Engine Oil Check** (page 245).
Engine Coolant Over Temperature	The engine coolant temperature is excessively high.
Washer Fluid Level Low	The washer fluid is low and needs to be refilled.
Drive Control Malfunction Service Required	There is a malfunction with one of the features that is a part of your drive control system. See an authorized dealer.
Transport Mode Contact Dealer	Indicates that your vehicle is still in Transport mode. This may not allow some features to operate properly. Contact an authorized dealer.
Factory Mode Contact Dealer	Indicates that your vehicle is still in Factory mode. This may not allow some features to operate properly. Contact an authorized dealer.

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MyKey

Message	Action
MyKey not Created	MyKey cannot be programmed during key programming .
MyKey Active Drive Safely	MyKey is active.
Speed Limited to XX MPH/km/h	When starting your vehicle, a MyKey is in use and the MyKey speed limit is on.
Near Vehicle Top Speed	When a MyKey is in use, the MyKey speed limit is on and your vehicle speed is approaching 81 mph (130 km/h).
Check Speed Drive Safely	MyKey is active.
Buckle Up to Unmute Audio	A MyKey is in use and Belt-Minder is activated.
Could Not Program Integrated Key	An attempt is made to program a spare key using two existing MyKeys.

Park Aid

Message	Action
Check Park Aid	The system has detected a condition that requires service. Contact your authorized dealer.
Check Rear Park Aid	The system has detected a condition that requires service. Contact your authorized dealer.
Rear Park Aid On Off	The park aid status.

Power Steering

Message	Action
Steering Fault Service Now	The power steering system has detected a condition that requires service. See an authorized dealer.
Service Power Steering Now	The power steering system is not working. Stop your vehicle a safe place. Contact an authorized dealer.
Steering Assist Fault Service Required	The power steering system has detected a condition within the power steering system or passive entry or passive start system requires service. Contact an authorized dealer.

Seats

Message	Action
Occupant Sensor BLOCKED Remove Objects Near Passenger Seat	Objects are by the passenger seat. After the objects are moved away from the seat, if the warning stays on or continues to come on contact an authorized dealer as soon as possible.

Tire Pressure Monitoring System

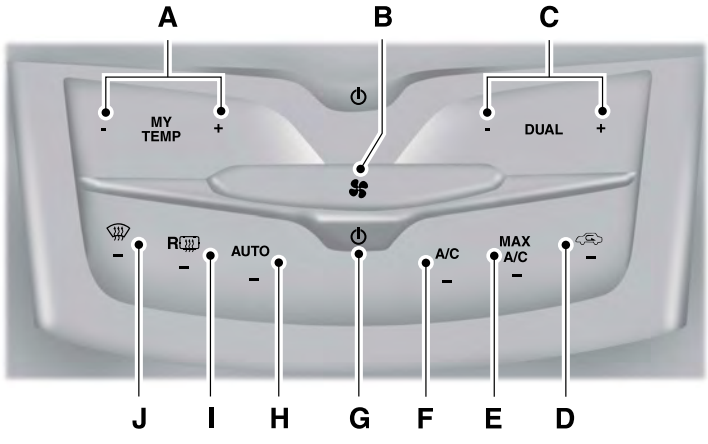
Message	Action
Tire Pressure Low	One or more tires on your vehicle have low tire pressure. See **Tire Pressure Monitoring System** (page 286).
Tire Pressure Monitor Fault	The tire pressure monitoring system is malfunctioning. If the warning stays on or continues to come on, contact an authorized dealer. See **Tire Pressure Monitoring System** (page 286).
Tire Pressure Sensor Fault	A tire pressure sensor is malfunctioning, or your spare tire is in use. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible. See **Tire Pressure Monitoring System** (page 286).

Transmission

Message	Action
Shift to Park	You switched the engine off and shift select lever is in any position other than park (P).

AUTOMATIC CLIMATE CONTROL

Note: *You can switch temperature units between Fahrenheit and Celsius. See your SYNC information.*



A **MY TEMP:** Adjust the temperature setting on the driver side. This control also adjusts the passenger side temperature when you switch off dual zone mode.

B **Fan speed control:** Adjust the volume of air circulated in the vehicle.

C **DUAL:** Adjust the temperature setting on the passenger side.

D **Recirculated air:** Press to switch between outside air and recirculated air. The air currently in the passenger compartment recirculates. This can reduce the time needed to cool the interior and reduce unwanted odors from entering your vehicle.

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Note: Recirculated air may also turn on and off automatically in instrument panel or instrument panel and floor airflow modes during hot weather to improve cooling efficiency.

E **MAX A/C:** Adjust for maximum cooling. Recirculated air flows through the instrument panel vents, air conditioning automatically turns on and the fan automatically adjusts to the highest speed.

F **A/C:** Press to switch the air conditioning on or off. Air conditioning cools your vehicle using outside air. To improve the time to reach a comfortable temperature in hot weather, drive with the windows open until you feel cold air through the air vents.

Note: In certain conditions (for example, maximum defrost), the air conditioning compressor may continue to operate even though the air conditioning is switched off.

G **Power:** Press to switch the system on and off. When the system is off, it prevents outside air from entering the vehicle.

H **AUTO:** Press to switch on automatic operation. Adjust to select the desired temperature. Fan speed, air distribution, air conditioning operation, and outside or recirculated air are automatically adjusted to heat or cool the vehicle to maintain the desired temperature. You can also switch off dual zone mode by pressing and holding for more than two seconds.

I **Heated rear window:** Press to switch the heated rear window on and off. See **Heated Windows and Mirrors** (page 107).

J **Defrost:** Select to distribute air through the windshield air vents. Air distribution to the instrument panel and footwell vents turns off. You can also use this setting to defrost and clear the windshield of a thin covering of ice.

HINTS ON CONTROLLING THE INTERIOR CLIMATE

General Hints

Note: *Prolonged use of recirculated air may cause the windows to fog up.*

Note: *You may feel a small amount of air from the footwell air vents regardless of the air distribution setting.*

Note: *To reduce humidity build-up inside your vehicle, do not drive with the system switched off or with recirculated air always switched on.*

Note: *Do not place objects under the front seats as this may interfere with the airflow to the rear seats.*

Note: *Remove any snow, ice or leaves from the air intake area at the base of the windshield.*

Note: *To improve the time to reach a comfortable temperature in hot weather, drive with the windows open until you feel cold air through the air vents.*

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Automatic Climate Control

Note: *Adjusting the settings when your vehicle interior is extremely hot or cold is not necessary. The system automatically adjusts to heat or cool the cabin to your selected temperature as quickly as possible. For the system to function efficiently, the instrument panel and side air vents should be fully open.*

Note: *If you select **AUTO** during cold outside temperatures, the system directs airflow to the windshield and side window vents. In addition, the fan may run at a slower speed until the engine warms up.*

Note: *If you select **AUTO** during hot outside temperatures, or when the inside of the vehicle is hot, the system automatically uses recirculated air to maximize interior cooling. When the interior reaches the selected temperature, the system automatically switches to using outside air.*

Heating the Interior Quickly

1. Select the **AUTO** function.
2. Adjust the temperature function to the desired setting.

Recommended Settings for Heating

1. Select the **AUTO** function.
2. Adjust the temperature function to the desired setting. Use 72ºF (22ºC) as a starting point, then adjust the setting as necessary.

Cooling the Interior Quickly

1. Select the **MAX A/C** function.

Recommended Settings for Cooling

1. Select the **AUTO** function.
2. Adjust the temperature function to the desired setting. Use 72ºF (22ºC) as a starting point, then adjust the setting as necessary.

Side Window Defogging in Cold Weather

1. Press the defrost button.
2. Adjust the temperature control to the desired setting. Use 72ºF (22ºC) as a starting point, then adjust the setting as necessary.

HEATED WINDOWS AND MIRRORS (If Equipped)

Heated Rear Window

Note: *Make sure the engine is running before operating the heated windows.*

Press the button to clear the heated rear window of thin ice and fog. The heated rear window will automatically turn off after a short period of time. Start the engine before you switch the heated rear window on.

Note: *Do not use razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty does not cover damage caused to the heated rear window grid lines.*

Heated Exterior Mirror (If Equipped)

When you switch the heated rear window on, the heated exterior mirrors will automatically turn on.

Note: *Do not remove ice from the mirrors with a scraper or adjust the mirror glass when it is frozen in place.*

Note: *Do not clean the mirror housing or glass with harsh abrasives, fuel or other petroleum-based cleaning products.*

CABIN AIR FILTER

Your vehicle is equipped with a cabin air filter, which gives you and your passengers the following benefits:

- It improves your driving comfort by reducing particle concentration.
- It improves the interior compartment cleanliness.
- It protects the climate control components from particle deposits.

You can locate the cabin air filter behind the glove box.

Note: *Make sure you have a cabin air filter installed at all times. This prevents foreign objects from entering the system. Running the system without a filter in place could result in degradation or damage to the system.*

Replace the filter at regular intervals. See **Scheduled Maintenance** (page 321).

For additional cabin air filter information, or to replace the filter, see an authorized dealer.

REMOTE START

The remote start feature allows you to pre-condition the interior of your vehicle. The climate control system works to achieve comfort according to your pre-selected settings.

Note: *You cannot adjust the system during remote start operation. You cannot switch on the displays or indicators during remote start.*

Switch the ignition on to return the system to its previous settings. The following features remain on if they automatically turned on during remote start, or remain off if they did not turn on during remote start.

- Heated seats.
- Cooled seats.
- Heated steering wheel.
- Heated mirrors.
- Heated rear window.

Note: *Passenger heated and cooled seats only remain on during remote start if they were on when you switched the vehicle off.*

You can adjust the default remote start settings using the information display controls. See **Information Displays** (page 89).

Automatic Settings

In hot weather, the system is set to 72ºF (22ºC). The cooled seats are set to high (if available, and selected to AUTO in the information display).

In moderate weather, the system either heats or cools (based on pre-selected settings). The rear defroster, heated mirrors and heated seats do not automatically switch on.

In cold weather, the system is set to 72ºF (22ºC). The heated and cooled seats and heated steering wheel are set to high (if available, and selected to AUTO in the information display). The rear defroster and heated mirrors automatically switch on.

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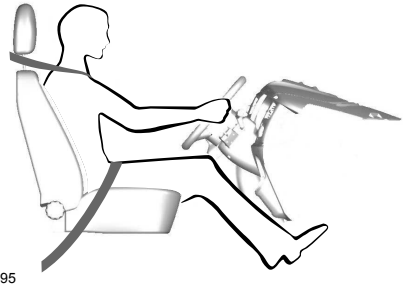
SITTING IN THE CORRECT POSITION

WARNINGS

Sitting improperly, out of position or with the seatback reclined too far can take weight off the seat cushion and affect the decision of the passenger sensing system, resulting in serious injury or death in the event of a crash. Always sit upright against your seat back, with your feet on the floor.

Do not recline the seatback as this can cause the occupant to slide under the safety belt, resulting in serious injury in the event of a crash.

Do not place objects higher than the seatback to reduce the risk of serious injury in the event of a crash or during heavy braking.



E68595

When you use them properly, the seat, head restraint, safety belt and airbags will provide optimum protection in the event of a crash.

We recommend that you follow these guidelines:

- Sit in an upright position with the base of your spine as far back as possible.
- Do not recline the seatback more than 30 degrees.
- Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable.
- Keep sufficient distance between yourself and the steering wheel. We recommend a minimum of 10 in (25 cm) between your breastbone and the airbag cover.
- Hold the steering wheel with your arms slightly bent.
- Bend your legs slightly so that you can press the pedals fully.
- Position the shoulder strap of the safety belt over the center of your shoulder and position the lap strap tightly across your hips.

Make sure that your driving position is comfortable and that you can maintain full control of your vehicle.

HEAD RESTRAINTS

WARNINGS

Fully adjust the head restraint before you sit in or operate your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraint when your vehicle is moving.

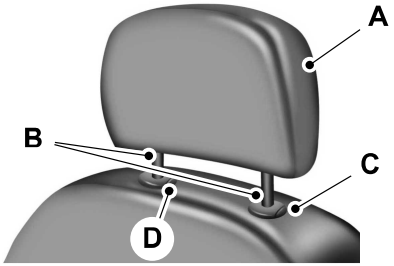
The head restraint is a safety device. Whenever possible it should be installed and properly adjusted when the seat is occupied.

WARNINGS

Install the head restraint properly to help minimize the risk of neck injury in the event of a crash.

Note: *Adjust the seatback to an upright driving position before adjusting the head restraint. Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable. If you are extremely tall, adjust the head restraint to its highest position.*

Front seat head restraint



E138642

The head restraints consist of:

A	An energy absorbing head restraint.
B	Two steel stems.
C	Guide sleeve adjust and unlock button.
D	Guide sleeve unlock and remove button.

Adjusting the Head Restraint

Raising the Head Restraint

Pull the head restraint up.

Lowering the Head Restraint

1. Press and hold button C.
2. Push the head restraint down.

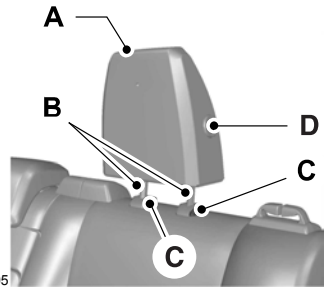
Removing the Head Restraint

1. Pull the head restraint up until it reaches its highest position.
2. Press and hold buttons C and D.
3. Pull the head restraint up.

Installing the Head Restraint

Align the steel stems into the guide sleeves and push the head restraint down until it locks.

Rear seat non-adjustable outboard head restraints



E162605

A	An energy absorbing head restraint.
B	Two steel stems.
C	Guide sleeve unlock and remove button.
D	Fold button.

Removing the Head Restraint

1. Pull the head restraint up until it reaches its highest position.
2. Press and hold both C buttons.
3. Pull the head restraint up.

Installing the Head Restraint

Align the steel stems into the guide sleeves and push the head restraint down until it locks.

Folding the Head Restraint

1. Press and hold button D.
2. Pull it back up to reset.

Tilting Head Restraints (If Equipped)

The front head restraints tilt for extra comfort. To tilt the head restraint, do the following:

E144727

1. Adjust the seatback to an upright driving or riding position.
2. Pivot the head restraint forward toward your head to the desired position.

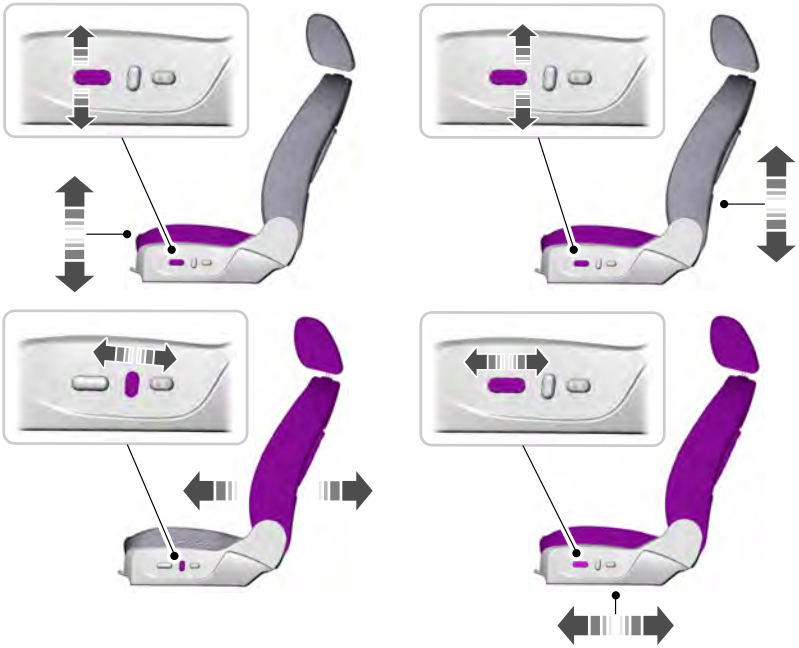
After the head restraint reaches the forward-most tilt position, pivoting it forward again will then release it to the rearward, untilted position.

POWER SEATS

WARNINGS

Do not adjust the front seat or seatback when your vehicle is moving. This may result in sudden seat movement, causing the loss of control of your vehicle.

Do not place cargo or any objects behind the seatback before returning it to the original position.



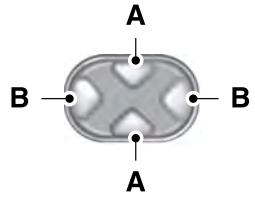
E138647

Note: *On vehicles with memory seats, to prevent damage to the seat, the power seats are designed to set a stopping position just short of the end of the seat track. If the seat encounters an object while moving forward or backward, a new stopping position will be set.*

To reset the seat to its normal stopping position:

1. After encountering the new stopping position, press the power seat control again to override.
2. Continue pressing the control until it reaches the end of the seat track.
3. Continue pressing the control for about two seconds. You will feel the seat bounce back slightly.

Power Lumbar



E173201

Press the top of the control (A) to raise the height of the lumbar support. Press the bottom of the control (A) to lower the height of the lumbar support

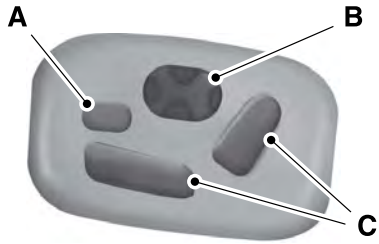
Press the front of the control (B) to adjust firmness. Press the rear of the control (B) to adjust softness.

Multi-Contour Front Seats With Active Motion (If Equipped)

Note: *The massage system will turn off after 20 minutes.*

Note: *The engine must be running or the vehicle must be in accessory mode to activate the seats.*

Note: *Allow a few seconds for any selection to activate. The seatback and cushion massage cannot function at the same time.*



E173202

A	Cushion and seat back massage control.
B	Lumbar control
C	Power seat controls.

- Seat cushion massage: Press and release the front portion of the massage control (A). Press again to cancel or press the lumbar control to cancel.
- Seatback massage: Press and release the rear portion of the massage button (A). Press again to cancel or press the lumbar control to cancel.
- Lumbar selection: Press either up or down on the lumbar control (B) to select the top, middle, or bottom part of the seatback.

- Lumbar adjust: Press and hold the front of the lumbar control (B) to increase the firmness of the selected portion of the seatback. Press and hold the rear of the lumbar to decrease the firmness.
- Power seat controls (C).

We recommend first selecting the lumbar to the desired setting and then selecting the back or cushion massage setting.

MEMORY FUNCTION

WARNINGS

Before activating the seat memory, make sure that the area immediately surrounding the seat is clear of obstructions and that all occupants are clear of moving parts.

Do not use the memory function when your vehicle is moving.

This function automatically recalls the position of these features.

- Driver seat.
- Power mirrors.
- Optional power adjustable pedals
- Optional power steering column.

The memory control is on the driver door.

E142554

Saving a Preset Position

1. Switch the ignition on.
2. Adjust the features to your desired positions.
3. Press and hold the desired preset button until you hear a tone sound.

You can save up to three preset memory positions. You can save a memory preset at any time.

Recalling a Preset Position

Press and release the desired memory preset button to recall a saved memory position.

Note: *You can recall a programmed memory position:*

- In any gearshift position if you have switched the ignition off.
- Only in park (P) or neutral (N) if you have switched the ignition on.

You can also recall a preset memory position by:

- Pressing the unlock button on your intelligent access key fob if it is linked to a preset position.
- Unlocking the intelligent driver door handle if a linked key fob is present.
- Entering a personal entry code on the Securicode keypad. See **Locks** (page 56).

Note: *When the ignition is off, a linked fob used to recall your memory position moves the seat and steering column to the Easy Entry position if the Easy Entry and Exit feature is enabled in the information display.*

Note: *During a memory recall, pressing any seat, steering column, mirror, or memory button cancels the operation.*

Linking a Preset Position to Your Remote Control or Intelligent Access Key

You can save the preset memory positions for up to three remote controls or intelligent access (IA) keys.

1. With the ignition on, move the memory positions to the desired positions.
2. Press and hold the desired preset button for five seconds. A tone sounds after about two seconds. Continue holding until you hear a second tone.
3. Within three seconds, press the lock button on the remote control you are linking.

To unlink a remote control, follow the same procedure – except in Step 3, press the unlock button on the remote control.

Easy Entry and Exit Feature

If you enable the easy entry and exit feature, it automatically moves the driver seat position rearward up to two inches (five centimeters) and the steering column up and forward when you switch the ignition off.

When you switch the ignition on, the driver seat and steering column return to the previous position.

You can enable or disable this feature in the information display. See **Information Displays** (page 89).

CLIMATE CONTROLLED SEATS

(If Equipped)

Heated Seats

WARNING

Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion, or other physical conditions, must exercise care when using the seat heater. The seat heater may cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket or cushion, because this may cause the seat heater to overheat. Do not puncture the seat with pins, needles, or other pointed objects because this may damage the heating element which may cause the seat heater to overheat. An overheated seat may cause serious personal injury.

Note: *Do not do the following:*

- Place heavy objects on the seat.
- Operate the seat heater if water or any other liquid spills on the seat. Allow the seat to dry thoroughly.

The heated seats will only function when the engine is running.

E146322

Press the heated seat symbol located on the touchscreen to cycle through the various heat settings and off. Warmer settings are indicated by more indicator lights.

If the engine falls below 350 RPM while the heated seats are on, the feature will turn itself off. You will need to reactivate it.

After 60 minutes of operation, the heated seats automatically turn off. Press the symbol to switch the heated seats on.

Cooled Seats

The cooled seats will only function when the engine is running.

E146309

Press the cooled seat symbol located on the touchscreen to cycle through the various cooling settings and off. Cooler settings are indicated by more indicator lights.

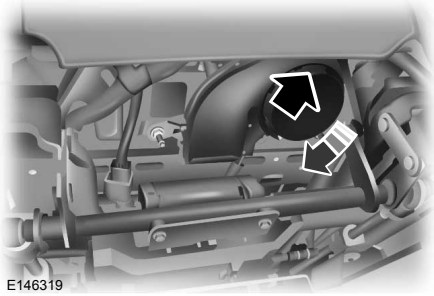
If the engine falls below 350 RPM while the cooled seats are on, the feature will turn itself off. You will need to reactivate it.

After 60 minutes of operation, the cooled seats automatically turn off. Press the symbol to switch the cooled seats on.

Heated and Cooled Seat Air Filter Replacement (If Equipped)

The climate controlled seat system includes air filters. You must replace them periodically. See **Scheduled Maintenance** (page 321).

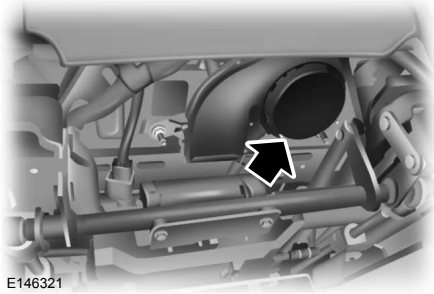
Locate the filters under each front seat and access them from the second-row footwell area. Move the front seats all the way forward and to the full up positions to ease access.



E146319

To remove an air filter:

1. Turn the vehicle off.
2. Push up on the outside rigid edge of the filter and rotate counterclockwise once the tabs are released, then remove the filter.



E146321

To install a filter:

1. First, position the filter in its housing making sure that the far forward end is all the way up in the housing.
2. Push in on the center of the outside edge of the filter and rotate up into the housing until it clips into position.

Rear Heated Seats

WARNING

Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion, or other physical conditions, must exercise care when using the seat heater. The seat heater may cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket or cushion, because this may cause the seat heater to overheat. Do not puncture the seat with pins, needles, or other pointed objects because this may damage the heating element which may cause the seat heater to overheat. An overheated seat may cause serious personal injury.

Note: *Do not do the following:*

- Place heavy objects on the seat.
- Operate the seat heater if water or any other liquid spills on the seat. Allow the seat to dry thoroughly.

The rear seat heat controls are located on the rear of the center console.

The heated seats only operate when the ignition is on.

E166817

- Press the indicated side of the control for minimum heat.
- Press again to turn off.

E146322

- Press the indicated side of the control for maximum heat.
- Press again to turn off.

The indicator light will illuminate when you switch on the heated seats.

After 60 minutes of operation, the heated seats automatically turn off. Press the symbol to switch the heated seats on.

REAR SEAT ARMREST

E144635

Fold the armrest down to use the armrest and cupholder. To open the storage lid, pull up on the latch located between the cupholders.

Armrest pass-through

Note: *Do not exceed 80 pounds (36 kilograms) of weight on the pass-through door.*

E152622

Release the latch, then pull down on the door located in the back of the armrest. You can store cargo of a longer length such as skis or lumber.

HomeLink Wireless Control System

WARNINGS

Make sure that the garage door and security device are free from obstruction when you are programming. Do not program the system with the vehicle in the garage.

Do not use the system with any garage door opener that does not have the safety stop and reverse feature as required by U.S. Federal Safety Standards (this includes any garage door opener manufactured before April 1, 1982). A garage door opener which cannot detect an object, signaling the door to stop and reverse, does not meet current federal safety standards. Using a garage door opener without these features increases the risk of serious injury or death.

Note: *Make sure you keep the original remote control transmitter for use in other vehicles as well as for future system programming.*

Note: *We recommend that upon the sale or lease termination of your vehicle, you erase the programmed function buttons for security reasons. See* ***Erasing the Function Button Codes****.*

Note: *You can program a maximum of three devices. To change or replace any of the three devices after it has been initially programmed, you must first erase the current settings. See* ***Erasing the Function Button Codes****.*

E142657

The universal garage door opener replaces the common hand-held garage door opener with a three-button transmitter that is integrated into the driver's sun visor.

The system includes two primary features, a garage door opener and a platform for remote activation of devices within the home. As well as being programmed for garage doors, the system transmitter can be programmed to operate entry gate operators, security systems, entry door locks and home or office lighting.

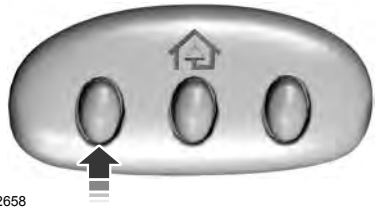
Additional system information can be found online at www.homelink.com, www.youtube.com/HomeLinkGentex or by calling the toll-free help line on 1-800-355-3515.

In-Vehicle Programming

This process is to program your hand-held transmitter and your in-vehicle HomeLink button.

Note: *The programming steps below assume you will be programming HomeLink that was not previously programmed.*

Note: *Put a new battery in the hand-held transmitter. This will ensure quicker training and accurate transmission of the radio-frequency signal.*



E142658

1. With your vehicle parked outside of the garage, turn your ignition to the **on** position, but do not start your vehicle.

2. Hold your hand-held garage door transmitter 2–6 in (5–14 cm) away from the HomeLink button you want to program.
3. Using both hands, simultaneously, press and hold the desired HomeLink button and the hand-held transmitter button. DO NOT release either one until the HomeLink indicator light flashes slowly and then rapidly. When the indicator light flashes rapidly, both buttons may be released. The rapid flashing indicates successful training.

Note: *You may need to use a different method if you live in Canada or have difficulties programming your gate operator or garage door opener. See* ***Gate Operator / Canadian Programming.***

4. Press and hold the HomeLink button you programmed for two seconds, then release. You may need to do this twice to activate the door. If your garage door does not operate, watch the HomeLink indicator light.

If the indicator light stays on, the programming is complete. No further action is needed.

If the indicator light flashes rapidly for 2 seconds and then turns to a constant light, the HomeLink button is not programmed yet. See **Programming Your Garage Door Opener Motor.**

To program additional buttons, repeat Steps 1 – 4.

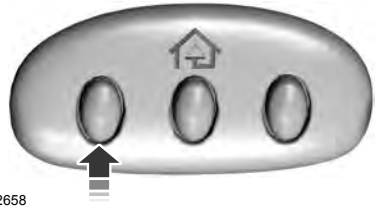
For questions or comments, please contact HomeLink at www.homelink.com, www.youtube.com/HomeLinkGentex or 1-800-355-3515.

Programming Your Garage Door Opener Motor

Note: *You may need a ladder to reach the unit and you may need to remove the cover or lamp lens on your garage door opener.*

E142659

1. Press the learn button on the garage door opener motor and then you have 30 seconds to complete the next two steps.
2. Return to your vehicle.


E142658

3. Press and hold the function button you want to program for 2 seconds, then release. Repeat this step. Depending on your brand of garage door opener, you may need to repeat this sequence a third time.

Gate Operator / Canadian Programming

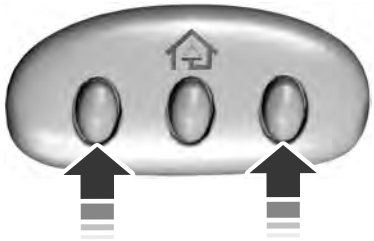
Canadian radio-frequency laws require transmitter signals to “time-out” (or quit) after several seconds of transmission – which may not be long enough for HomeLink to pick up the signal during programming. Similar to this Canadian law, some U.S. gate operators are designed to “time-out” in the same manner.

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

1. Press and hold the HomeLink button while you press and release, **every two seconds**, your hand-held transmitter until the HomeLink indicator light changes from a slow to a rapidly blinking light.
2. Release both the HomeLink and hand-held transmitter buttons.
3. Continue programing HomeLink. See **In-Vehicle Programming**.

Erasing the Function Button Codes

Note: *You cannot erase individual buttons.*



E142660

1. Press and hold the outer two function buttons simultaneously for approximately 20 seconds until the indicator lights above the buttons flash rapidly.
2. When the indicator lights flash, release the buttons. The codes for all buttons are erased.

Reprogramming a Single Button

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

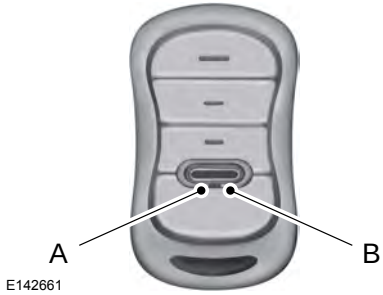
1. Press and hold the desired button. Do NOT release the button.
2. The indicator light will begin to flash after 20 seconds. Without releasing the button, follow Step 1 in the Programming section.

For questions or comments, contact HomeLink at www.homelink.com, www.youtube.com/HomeLinkGentex or 1-800-355-3515.

Programming to a Genie Intellicode 2 Garage Door Opener

Note: *The Genie Intellicode 2 transmitter must already be programmed to operate with the garage door opener.*

Note: *To program HomeLink to the transmitter you must first put the transmitter into programming mode.*



E142661

A. Red indicator light
B. Green indicator light

1. Press and hold one of the buttons on the hand-held transmitter for 10 seconds. The indicator light will change from green to red and green.
2. Press the same button twice to confirm the change to programming mode. If done properly the indicator light will appear red.
3. Hold the transmitter within 1–3 inches (2–8 centimeters) of the button on the visor you want to program.

4. Press and hold both the programmed Genie button on the hand-held transmitter and the button you want to program. The indicator light on the visor will flash rapidly when the programming is successful.

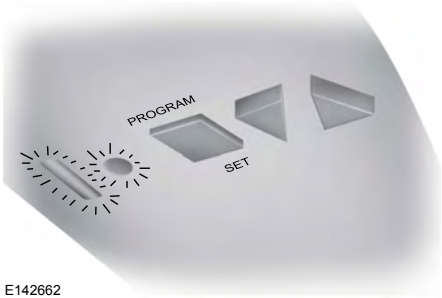
Note: *The Genie transmitter will transmit for up to 30 seconds. If HomeLink does not program within 30 seconds the Genie transmitter will need to be pressed again. If the Genie transmitter indicator light displays green and red, release the button until the indicator light turns off before pressing the button again.*

Once HomeLink has been programmed successfully, the Genie transmitter must be changed out of program mode. To do this:

1. Press and hold the previously programmed Genie button on the hand-held transmitter for 10 seconds. The indicator light will change from red to red and green.
2. Press the same button twice to confirm the change. If done correctly the indicator light will turn green.

Programming HomeLink to the Genie Intellicode Garage Door Opener Motor

Note: *You may need a ladder to access the garage door opener motor.*



E142662

1. Press and hold the program button on the garage door opener motor until both blue indicator lights turn on.
2. Release the program button. Only the smaller round indicator light should be on.
3. Press and release the program button. The larger purple indicator light will flash.

Note: *The next two steps must be completed in 30 seconds.*

4. Press and release the Genie Intellicode 2 hand-held transmitter's previously programmed button. Both indicator lights on the garage door opener motor unit should now flash purple.
5. Press and hold the previously programmed button on the visor for 2 seconds. Repeat this step up to 3 times until the garage door moves.

Programming is now complete.

Clearing a HomeLink Device

To erase programming from the three HomeLink buttons press and hold the two outer HomeLink buttons until the indicator light begins to flash. The indicator light will begin flashing in 10 to 20 seconds, at which time both buttons should be released. Programming has now been erased, and the indicator light should blink slowly to indicate the device is in train mode when any of the three HomeLink buttons are pressed.

FCC and RSS-210 Industry Canada Compliance

This device complies with Part 15 of the FCC Rules and with RSS-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 to your device not expressly approved by the party responsible for compliance can void the user's authority to operate the equipment.

12 Volt DC Power Point

WARNING

Do not plug optional electrical accessories into the cigar lighter socket (if equipped). Improper use of the lighter can cause damage not covered by your warranty, and can result in fire or serious injury.

Note: *If used when the vehicle is not running, the battery will discharge. There may be insufficient power to restart your vehicle.*

Note: *Do not insert objects other than an accessory plug into the power point. This will damage the outlet and blow the fuse.*

Note: *Do not hang any type of accessory or accessory bracket from the plug.*

Note: *Do not use the power point over the vehicle capacity of 12 volt DC 180 watts or a fuse may blow.*

Note: *Do not use the power point for operating a cigar lighter element.*

Note: *Improper use of the power point can cause damage not covered by your warranty.*

Note: *Always keep the power point caps closed when not in use.*

Run the vehicle for full capacity use of the power point. To prevent the battery from discharging accidentally:

- Do not use the power point longer than necessary when the vehicle is not running.
- Do not leave devices plugged in overnight or when you park your vehicle for extended periods.

Locations

Power points may be in the following locations:

- In the front of the center console.
- Inside the center console storage bin.
- On the rear of the center console.

110 Volt AC Power Point (If Equipped)

WARNING

Do not keep electrical devices plugged in the power point whenever the device is not in use. Do not use any extension cord with the 110 volt AC power point, since it will defeat the safety protection design. Doing so my cause the power point to overload due to powering multiple devices that can reach beyond the 150 watt load limit and could result in fire or serious injury.

Note: *Keep the vehicle running to use the power point.*

E143941

You can use the power point for powering electrical devices that require up to 150 watts. It is on the rear of the center console.

When the indicator light, located on the power point is:

- On — power point is ready to supply power.
- Off — power point power supply is off; ignition is not on.
- Flashing — power point is in fault mode.

The power outlet temporarily turns off power when in fault mode if the device exceeds the 150 watt limit. Unplug your device and switch the ignition off. Switch the ignition back on, but do not plug your device back in. Let the system cool off and switch the ignition off to reset the fault mode. Switch the ignition back on and make sure the indicator light remains on.

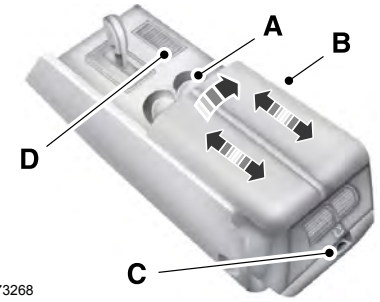
Do not use the power point for certain electric devices, including:

- Cathode ray tube type televisions.
- Motor loads, for example vacuum cleaners, electric saws and other electric power tools, or compressor-driven refrigerators.
- Measuring devices which process precise data, for example medical equipment or measuring equipment.
- Other appliances requiring an extremely stable power supply, for example microcomputer-controlled electric blankets or touch sensor lamps.

CENTER CONSOLE

Stow items in the cupholder carefully as items may become loose during hard braking, acceleration or collisions, including hot drinks which may spill.

Available console features include:



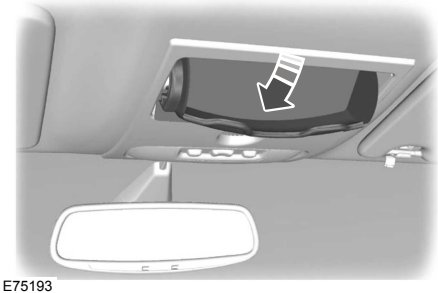
A Cupholders

B Sliding driver and passenger arm rests, utility compartment with audio input jack, USB port and power point

C Rear power point, heated seat switches and air vents

D Power point door and a power rear sunshade control

OVERHEAD CONSOLE



Press near the rear edge of the door to open it.

GENERAL INFORMATION

WARNINGS

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 on dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, creating the risk of fire.

Do not start the engine in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine.

If you smell exhaust fumes inside your vehicle, have your vehicle checked by an authorized dealer immediately. Do not drive your vehicle if you smell exhaust fumes.

If you disconnect the battery, your vehicle may exhibit some unusual driving characteristics for approximately 5 miles (8 kilometers) after you reconnect it. This is because the engine management system must realign itself with the engine. You can disregard any unusual driving characteristics during this period.

The powertrain control system meets all Canadian interference-causing equipment standard requirements regulating the impulse electrical field or radio noise.

When you start the engine, avoid pressing the accelerator pedal before and during operation. Only use the accelerator pedal when you have difficulty starting the engine.

KEYLESS STARTING

Note: *The keyless starting system may not function if the key is close to metal objects or electronic devices such as cellular phones.*

Note: *A valid key must be located inside your vehicle to switch the ignition on and start the engine.*

Note: *When locking your vehicle, any remote controls left inside the vehicle may become disabled. A message may appear in the information display indicating that there is no key detected if you try to start the engine. Press the unlock button on the remote control to enable it, and then start the engine.*

Ignition Modes

E142555

Off: Turns the ignition off.

- Without applying the brake pedal, press and release the button once when the ignition is in the on mode, or when the engine is running but the vehicle is not moving.

On: All electrical circuits are operational and the warning lamps and indicators illuminate.

- Without applying the brake pedal, press and release the button once.

Start: Starts the engine.

- Press the brake pedal, and then press the button for any length of time. An indicator light on the button illuminates when then ignition is on and when the engine starts.

STARTING A GASOLINE ENGINE

When you start the engine, the idle speed increases, this helps to warm up the engine. If the engine idle speed does not slow down automatically, have your vehicle checked by an authorized dealer.

Note: *You can crank the engine for a total of 60 seconds (without the engine starting) before the starting system temporarily disables. The 60 seconds does not have to be all at once. For example, if you crank the engine three times for 20 seconds each time, without the engine starting, you reached the 60-second time limit. A message appears in the information display alerting you that you exceeded the cranking time. You cannot attempt to start the engine for at least 15 minutes. After 15 minutes, you are limited to a 15-second engine cranking time. You need to wait 60 minutes before you can crank the engine for 60 seconds again.*

Before starting the engine, check the following:

- Make sure all occupants have fastened their safety belts.
- Make sure the headlamps and electrical accessories are off.
- Make sure the parking brake is on.
- Put the transmission in park (P).

Note: *Do not touch the accelerator pedal.*

1. Fully press the brake pedal.
2. Press the button.

The system does not function if:

- The key frequencies are jammed.
- The key battery has no charge.

If you are unable to start the engine, do the following:

E173591

1. With the buttons facing the rear of the vehicle and the key ring up, place the key into the backup slot.
2. With the key in this position, press the brake pedal, then the button to switch the ignition on and start your vehicle.

Fast Restart

The fast restart feature allows you to restart the engine within 20 seconds of switching it off, even if a valid key is not present.

Within 20 seconds of switching the engine off, press the brake pedal and press the button. After 20 seconds have expired, you can no longer restart the engine without the key present inside your vehicle.

Once the engine has started, it remains running until you press the button, even if the system does not detect a valid key. If you open and close a door while the engine is running, the system searches for a valid key. You cannot restart the engine if the system does not detect a valid key within 20 seconds.

Failure to Start

If you cannot start the engine after three attempts, wait 10 seconds and follow this procedure:

1. Fully press the brake pedal.
2. Fully press the accelerator pedal and hold it there.
3. Start the engine.

Automatic Engine Shutdown

If your vehicle is equipped with a keyless ignition, it has a feature that automatically shuts down the engine if it has been idling for an extended period. The ignition also turns off in order to save battery power. Before the engine shuts down, a message appears in the information display showing a timer counting down from 30 seconds. If you do not intervene within 30 seconds, the engine shuts down. Another message appears in the information display to inform you that the engine has shut down in order to save fuel. Start your vehicle as you normally do.

Automatic Engine Shutdown Override

Note: *You cannot permanently switch off the automatic engine shutdown feature. When you switch it off temporarily, it turns on at the next ignition cycle.*

You can stop the engine shutdown, or reset the timer, at any point before the 30-second countdown has expired by doing any of the following:

- You can reset the timer by interacting with your vehicle (such as pressing the brake pedal or accelerator pedal).
- You can temporarily switch off the shutdown feature any time the ignition is on (for the current ignition cycle only). Use the information display to do so. See **Information Displays** (page 89).
- During the countdown before engine shutdown, you are prompted to press OK or RESET (depending on your type of information display) to temporarily switch the feature off (for the current ignition cycle only).

Stopping the Engine When Your Vehicle is Stationary

1. Put the transmission in park (P).
2. Press the button once.
3. Apply the parking brake.

Note: *This switches off the ignition, all electrical circuits, warning lamps and indicators.*

Stopping the Engine When Your Vehicle is Moving

WARNING

Switching off the engine when the vehicle is still moving will result in a loss of brake and steering assistance. The steering will not lock, but higher effort will be required. When the ignition is switched off, some electrical circuits, including air bags, warning lamps and indicators may also be off. If the ignition was turned off accidentally, you can shift into neutral (N) and re-start the engine.

1. Press and hold the button for one second, or press it three times within two seconds.
2. Move the transmission selector lever to neutral (N) and use the brakes to bring your vehicle to a safe stop. When your vehicle has stopped, move the transmission selector lever to park (P) and switch the ignition off.
3. Apply the parking brake.

Guarding Against Exhaust Fumes

WARNING

If you smell exhaust fumes inside your vehicle, have your vehicle checked by your authorized dealer immediately. Do not drive your vehicle if you smell exhaust fumes. Carbon monoxide is present in exhaust fumes. Take precautions to avoid its dangerous effects.

Important Ventilating Information

If you stop your vehicle and then leave the engine idling for long periods, we recommend that you do one of the following:

- Open the windows at least 1 inch (2.5 centimeters).
- Set your climate control to outside air.

ENGINE BLOCK HEATER (If Equipped)

WARNINGS

Failure to follow engine block heater instructions could result in property damage or serious personal injury.

WARNINGS

Do not use your heater with ungrounded electrical systems or two-pronged adapters. There is a risk of electrical shock.

Do not fully close the hood, or allow it to drop under its own weight when using the engine block heater. This could damage the power cable and may cause an electrical short resulting in fire, injury and property damage.

Note: *The heater is most effective when outdoor temperatures are below 0ºF (-18ºC).*

The heater acts as a starting aid by warming the engine coolant. This allows the climate control system to respond quickly. The equipment includes a heater element (installed in the engine block) and a wire harness. You can connect the system to a grounded 120-volt AC electrical source.

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We recommend that you do the following for a safe and correct operation:

- Use a 16-gauge outdoor extension cord that is product certified by Underwriter's Laboratory (UL) or Canadian Standards Association (CSA). This extension cord must be suitable for use outdoors, in cold temperatures, and be clearly marked Suitable for Use with Outdoor Appliances. Do not use an indoor extension cord outdoors. This could result in an electric shock or become a fire hazard.
- Use as short an extension cord as possible.
- Do not use multiple extension cords.
- Make sure that when in operation, the extension cord plug and heater cord plug connections are free and clear of water. This could cause an electric shock or fire.
- Make sure your vehicle is parked in a clean area, clear of combustibles.
- Make sure the heater, heater cord and extension cord are firmly connected.
- Check for heat anywhere in the electrical hookup once the system has been operating for approximately 30 minutes.
- Make sure the system is unplugged and properly stowed before starting and driving your vehicle. Make sure the protective cover seals the prongs of the block heater cord plug when not in use.
- Make sure the heater system is checked for proper operation before winter.

Using the Engine Block Heater

Make sure the receptacle terminals are clean and dry prior to use. Clean them with a dry cloth if necessary.

The heater uses 0.4 to 1.0 kilowatt-hours of energy per hour of use. The system does not have a thermostat. It achieves maximum temperature after approximately three hours of operation. Using the heater longer than three hours does not improve system performance and unnecessarily uses electricity.

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SAFETY PRECAUTIONS

WARNINGS

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 you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

Automotive fuels can cause serious injury or death if misused or mishandled.

Flow of fuel through a fuel pump nozzle can produce static electricity. This can cause a fire if you are filling an ungrounded fuel container.

Gasoline may contain benzene, which is a cancer-causing agent.

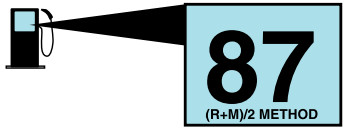
When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

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, clothing or both, 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 could cause an adverse reaction, serious personal injury or sickness. If fuel is splashed on the skin, wash the affected areas immediately with plenty of soap and water. Consult a physician immediately if you experience any adverse reactions.

FUEL QUALITY

Choosing the Right Fuel



E161513

We recommend regular unleaded gasoline with a pump (R+M)/2 octane rating of 87. Some stations offer fuels posted as regular with an octane rating below 87, particularly in high altitude areas. We do not recommend fuels with an octane rating below 87. To provide improved performance, we recommend premium fuel for severe duty usage such as trailer tow.

Do not use any fuel other than those recommended because they could lead to engine damage that may not be covered by the vehicle Warranty.

Note: *Use of any fuel other than those recommended can impair the emission control system and cause a loss of vehicle performance.*

Do not use:

- Diesel fuel.
- Fuels containing kerosene or paraffin.
- Fuel containing more than 15% ethanol or E85 fuel.
- Fuels containing methanol.
- Fuels containing metallic-based additives, including manganese-based compounds.
- Fuels containing the octane booster additive, methylcyclopentadienyl manganese tricarbonyl (MMT).
- Leaded fuel (using leaded fuel is prohibited by law).

The use of fuels with metallic compounds such as methylcyclopentadienyl manganese tricarbonyl (commonly known as MMT), which is a manganese-based fuel additive, will impair engine performance and affect the emission control system.

Do not be concerned if the engine sometimes knocks lightly. However, if it knocks heavily under most driving conditions while you are using fuel with the recommended octane rating, contact an authorized dealer to prevent any engine damage.

FUEL FILLER FUNNEL LOCATION

The fuel filler funnel is located in the spare wheel storage tray.

RUNNING OUT OF FUEL

Running out of fuel can cause damage not covered by the vehicle Warranty.

If your vehicle runs out of fuel:

- Add a minimum of 1.3 gal (5 L) of fuel to restart the engine. If your vehicle is out of fuel and on a steep slope, more fuel may be required.
- You may need to switch 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. When restarting, cranking time takes a few seconds longer than normal.

Filling a Portable Fuel Container

Use the following guidelines to avoid electrostatic charge build-up when filling an ungrounded fuel container:

- Only use an approved fuel container to transfer fuel to your vehicle. Place the container on the ground when filling it.
- Do not fill a fuel container when it is inside your vehicle (including the cargo area).
- Keep the fuel pump nozzle in contact with the fuel container when filling it.
- Do not use a device that holds the fuel pump nozzle lever in the fill position.

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Adding Fuel From a Portable Fuel Container

WARNINGS

Do not insert the nozzle of a fuel container or an aftermarket funnel into the fuel system filler neck. This may damage the fuel system filler neck or its seal and cause fuel to run onto the ground.

Do not try to pry open or push open the capless fuel system with foreign objects. This could damage the fuel system and its seal and cause injury to you or others.

Do not dispose of fuel in the household refuse or the public sewage system. Use an authorized waste disposal facility.

When refueling the vehicle fuel tank from a fuel container, use the plastic funnel included with your vehicle. See **Fuel Filler Funnel Location** (page 133).

Note: *Do not use aftermarket funnels as they will not work with the capless fuel system and can damage it.*

When refueling the vehicle fuel tank from a fuel container, do the following:

1. Fully open the fuel tank filler door until it engages and remove the fuel tank filler cap.

Note: *Capless fuel systems do not have a fuel tank filler cap.*

2. Fully insert the plastic funnel into the fuel tank filler pipe opening.

E157452

3. Add fuel to your vehicle from the fuel container.
4. Remove the plastic funnel from the fuel tank filler pipe opening.
5. Replace the fuel tank filler cap and close the fuel tank filler door.
6. Clean the plastic funnel and place it back in your vehicle or properly dispose of it.

Note: *Extra funnels can be purchased from an authorized dealer if you choose to dispose of the funnel.*

REFUELING

WARNINGS

Fuel vapor burns violently and a fuel fire can cause severe injuries.

Read and follow all the instructions on the pump island.

Switch 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.

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WARNINGS

Do not use personal electronic devices while refueling.

Use the following guidelines to avoid electrostatic charge 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 your vehicle (including the cargo area).
- Keep the fuel pump nozzle in contact with the fuel container while filling.
- Do not use a device that would hold the fuel pump handle in the fill position.

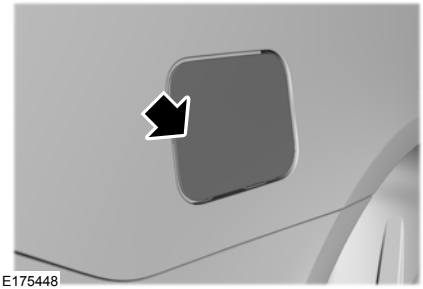
Easy Fuel™ Capless Fuel System

WARNING

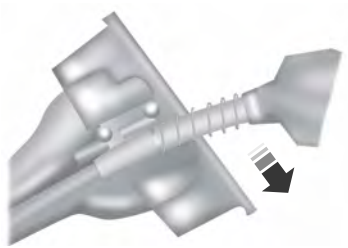
The fuel system may be under pressure. If you hear a hissing sound near the fuel filler door, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

When fueling your vehicle:

1. Put the vehicle in position **P** and switch the ignition off.

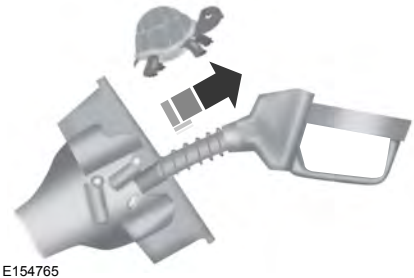

E175448

2. Press the center-rear edge of the fuel filler door and release to open.


E156032

Note: *Hold the handle of the fuel filler nozzle higher while you insert the nozzle for easier access.*

3. Slowly insert the fuel filler nozzle fully into the fuel system to open both doors. Leave the nozzle fully inserted until you have stopped pumping fuel.


E154765

Note: *Allow about five to ten seconds after pumping fuel before removing the fuel filler nozzle. This allows residual fuel to drain back into the fuel tank and not spill onto the vehicle.*

4. After you have stopped pumping fuel, slowly remove the fuel filler nozzle.

Note: *A fuel spillage concern may occur if overfilling the fuel tank. Do not overfill the tank to the point that the fuel is able to bypass the fuel filler nozzle. The overfilled fuel may run down the drain located below and in front of the fuel filler door.*

5. To close the fuel filler door, press the center-rear edge of the fuel filler door and then release. The fuel door will latch closed.

If the fuel fill inlet did not close properly, a **Check Fuel Fill Inlet** message may appear on the instrument cluster.

At the next opportunity, do the following:

1. Safely pull off the road.
2. Put the vehicle in position **P** and switch the ignition off.
3. Open the fuel filler door and remove any visible debris from the fuel fill opening.
4. Insert the fuel fill nozzle, or the fuel fill funnel provided with the vehicle, several times to allow the inlet to close properly. This will dislodge any debris preventing the inlet from sealing.

If this action corrects the problem, the message may not reset immediately. It may take several driving cycles for the message to turn off. A driving cycle consists of an engine start-up (after four or more hours with the engine off) followed by city or highway driving. Continuing to drive with the message on may cause the service engine soon lamp to turn on as well.

FUEL CONSUMPTION

Empty reserve is the amount of fuel remaining in the 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.

- The usable capacity of the fuel tank is the amount of fuel that can be added into the tank after the gauge indicates empty.
- The advertised capacity is the total fuel tank size. See **Capacities and Specifications** (page 296). It is the combined usable capacity plus the empty reserve.
- Due to the empty reserve, you may not be able to refuel the full amount of the advertised capacity of the fuel tank even when the fuel gauge reads empty.

Filling the Tank

For consistent results when refueling:

- Turn the ignition off before fueling; an inaccurate reading results if the engine is left running.
- Use the same fill rate (low-medium-high) each time the tank is filled.
- Allow no more than one automatic shut-off when refueling.

Results are most accurate when the filling method is consistent.

Calculating Fuel Economy

Do not measure fuel economy during the first 1,000 mi (1,600 km) of driving (this is your engine's break-in period). A more accurate measurement is obtained after 2,000 mi (3,200 km) to 3,000 mi (4,800 km). Also, fuel expense, frequency of fill ups or fuel gauge readings are not accurate ways to measure fuel economy.

1. Fill the fuel tank completely and record the initial odometer reading.
2. Each time you fill the fuel tank, record the amount of fuel added.
3. After at least three fill ups, fill the fuel tank and record the current odometer reading.
4. Subtract your initial odometer reading from the current odometer reading.

To calculate L/100 km (liters per 100 kilometers) fuel consumption, multiply the liters used by 100, then divide by kilometers traveled. To calculate MPG (miles per gallon) fuel consumption, divide miles traveled by gallons used.

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Keep a record for at least one month and record the type of driving (city or highway). This provides an accurate estimate of your vehicle's fuel economy under current driving conditions. Keeping records during summer and winter will show how temperature impacts fuel economy.

Conditions

- Heavily loading your vehicle reduces fuel economy.
- Carrying unnecessary weight in your vehicle may reduce fuel economy.
- Adding certain accessories to your vehicle such as bug deflectors, rollbars or light bars, running boards and ski racks may reduce fuel economy.
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures.
- Fuel economy may decrease when driving short distances.
- You will get better fuel economy when driving on flat terrain than when driving on hilly terrain.

EMISSION CONTROL SYSTEM

WARNINGS

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.

Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

Your vehicle is equipped with various emission control components and a catalytic converter that 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 you use anything other than Ford, Motorcraft or Ford-authorized parts 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.

Illumination of the service engine soon indicator, 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.

An improperly operating or damaged exhaust system may allow exhaust to enter the vehicle. Have a damaged or improperly operating exhaust system inspected and repaired immediately.

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 also lists engine displacement.

Please consult your warranty information for complete details.

On-Board Diagnostics (OBD-II)

Your vehicle has a computer known as the on-board diagnostics system (OBD-II) that monitors the engine's emission control system. The system protects the environment by making sure that your vehicle continues to meet government emission standards. The OBD-II system also assists a service technician in properly servicing your vehicle.

When the service engine soon indicator illuminates, the OBD-II system has detected a malfunction. Temporary malfunctions may cause the service engine soon indicator to illuminate. Examples are:

1. Your vehicle has run out of fuel—the engine may misfire or run poorly.
2. Poor fuel quality or water in the fuel—the engine may misfire or run poorly.
3. The fuel fill inlet may not have closed properly. See **Refueling** (page 134).
4. Driving through deep water—the electrical system may be wet.

You can correct these temporary malfunctions by filling the fuel tank with good quality fuel, properly closing the fuel fill inlet or letting the electrical system dry out. After three driving cycles without these or any other temporary malfunctions present, the service engine soon indicator should stay off the next time you start the engine. A driving cycle consists of a cold engine startup followed by mixed city and highway driving. No additional vehicle service is required.

If the service engine soon indicator remains on, have your vehicle serviced at the first available opportunity. Although some malfunctions detected by the OBD-II may not have symptoms that are apparent, continued driving with the service engine soon indicator on can result in increased emissions, lower fuel economy, reduced engine and transmission smoothness and lead to more costly repairs.

Readiness for Inspection and Maintenance (I/M) Testing

Some state and provincial and local governments may have Inspection/Maintenance (I/M) programs to inspect the emission control equipment on your vehicle. Failure to pass this inspection could prevent you from getting a vehicle registration.

If the service engine soon indicator is on or the bulb does not work, your vehicle may need service. See On-Board Diagnostics.

Your vehicle may not pass the I/M test if the service engine soon indicator is on or not working properly (bulb is burned out), or if the OBD-II system has determined that some of the emission control systems have not been properly checked. In this case, the vehicle is not ready for I/M testing.

If the vehicle's engine or transmission has just been serviced, or the battery has recently run down or been replaced, the OBD-II system may indicate that the vehicle is not ready for I/M testing. To determine if the vehicle is ready for I/M testing, turn the ignition key to the on position for 15 seconds without cranking the engine. If the service engine soon indicator blinks eight times, it means that the vehicle is not ready for I/M testing; if the service engine soon indicator stays on solid, it means that your vehicle is ready for I/M testing.

The OBD-II system checks the emission control system during normal driving. A complete check may take several days.

If the vehicle is not ready for I/M testing, you can perform the following driving cycle consisting of mixed city and highway driving:

1. 15 minutes of steady driving on an expressway or highway followed by 20 minutes of stop-and-go driving with at least four 30-second idle periods.
2. Allow your vehicle to sit for at least eight hours with the ignition off. Then, start the vehicle and complete the above driving cycle. The vehicle must warm up to its normal operating temperature. Once started, do not turn off the vehicle until the above driving cycle is complete.

If the vehicle is still not ready for I/M testing, you need to repeat the above driving cycle.

AUTOMATIC TRANSMISSION

WARNINGS

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

Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than three seconds will limit engine rpm, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

Understanding the Positions of Your Automatic Transmission

Putting your vehicle in gear:

1. Fully press down the brake pedal.
2. Press and hold the button on the front of the gearshift lever.
3. Move the gearshift lever into the desired gear.
4. Release the button and your transmission will remain in the selected gear.

E142628

Park (P)

This position locks the transmission and prevents the front wheels from turning. Come to a complete stop before putting your vehicle into and out of Park (P)

Reverse (R)

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

Neutral (N)

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

Drive (D)

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

Sport (S)

Moving the gearshift lever to Sport (S):

- Provides additional grade (engine) braking and extends lower gear operation to enhance performance for uphill climbs, hilly terrain or mountainous areas. This will increase engine RPM during engine braking.
- Provides additional lower gear operation through the automatic transmission shift strategy.
- Gears are selected more quickly and at higher engine speeds.

SelectShift Automatic™ Transmission (If Equipped)

Your SelectShift Automatic transmission gives you the ability to change gears manually.

With your vehicle in Drive (D), the paddle shifters provide temporary manual control. They allow you the ability to shift gears quickly, without taking your hands off the steering wheel.

You can achieve extensive manual control by moving the gearshift lever to the Sport (S) position.

- Pull the right paddle (+) to upshift.
- Pull the left paddle (–) to downshift.

E144821

The system determines when temporary manual control is no longer in use and returns to automatic control.

Upshift to the recommended shift speeds according to the following chart:

Upshifts when accelerating (recommended for best fuel economy)	
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)
5 - 6	50 mph (80 km/h)

The instrument cluster will display your currently selected gear.

The transmission will automatically upshift if your engine speed is too high or downshift if your engine speed is too low.

Note: *The system will stay in manual control until you move the gearshift lever to another position. For example, Drive (D).*

Note: *Engine damage may occur if excessive engine revving is held without shifting.*

Brake-Shift Interlock

WARNINGS

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

When doing this procedure, you will be taking the vehicle out of park which means your vehicle can roll freely. To avoid unwanted vehicle movement, always fully set the parking brake prior to doing this procedure. Use wheel chocks if appropriate.

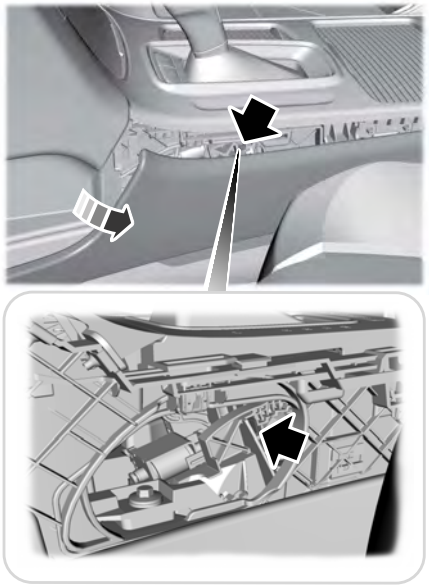
If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. See your authorized dealer.

Note: *See an authorized dealer as soon as possible if this procedure is used.*

Note: *For some markets this feature will be disabled.*

Use the brake shift interlock lever to move the gearshift lever from the park position in the event of an electrical malfunction or if your vehicle has a dead battery.

Apply the parking brake and turn the ignition off before performing this procedure.



E173230

1. Remove the side panel on the left side of the gearshift lever.
2. Locate the brake shift interlock lever on the left side of the gearshift assembly.
3. Apply the brake pedal. Using a screwdriver (or similar tool), press down and hold the brake shift interlock lever while pulling the gearshift lever out of Park (P) and into Neutral (N).
4. Install the side panel in reverse order.
5. Apply brake pedal, start your vehicle, and release the parking brake.

Automatic Transmission Adaptive Learning

This feature is designed to increase durability and provide consistent shift feel over the life of the vehicle. A new vehicle or 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. Additionally, whenever the battery is disconnected or a new battery installed, the strategy must be relearned.

If Your Vehicle Gets Stuck In Mud or Snow

Note: *Do not rock your vehicle if the engine is not at normal operating temperature or damage to the transmission may occur.*

Note: *Do not rock your vehicle for more than a minute or damage to the transmission and tires may occur, or the engine may overheat.*

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.

USING ALL-WHEEL DRIVE

All-wheel drive uses all four wheels to power the vehicle. This increases traction, enabling you to drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot. The AWD system is active all the time and requires no input from the operator.

Note: *Your AWD vehicle is not intended for off-road use. The AWD feature gives your vehicle some limited off-road capabilities in which driving surfaces are relatively level, obstruction-free and otherwise similar to normal on-road driving conditions. Operating your vehicle under other than those conditions could subject the vehicle to excessive stress which might result in damage which is not covered under your warranty.*

Note: *When an AWD system fault is present, the warning Check AWD displays in the information display. The AWD system is not functioning correctly and defaults to front-wheel drive. When this warning displays, have your vehicle serviced at an authorized dealer.*

Note: *The AWD OFF message may also appear in the information display if the AWD system overheats and defaults to front-wheel drive. This may occur if the vehicle is operated in extreme conditions with excessive wheel slip, such as deep sand. To resume normal AWD function as soon as possible, stop the vehicle in a safe location and stop the engine for at least 10 minutes. After the engine has been restarted and the AWD system has adequately cooled, the AWD OFF message will turn off and normal AWD function returns. If the engine is not stopped, the AWD OFF message turns off when the system cools and normal AWD function returns.*

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All-Wheel Drive Messages

AWD Messages	Action / Description
AWD OFF	Displayed when the system has been automatically disabled to protect itself. This is caused by operating the vehicle with the compact spare tire installed or if the system is overheating. The system will resume normal function and clear this message after cycling the ignition on and off and driving a short distance with the road tire re-installed or after the system is allowed to cool.
Check AWD	Displayed in conjunction with the powertrain malfunction/reduced power light when the system is not operating properly. If the warning stays on or continues to come on, contact your authorized dealer as soon as possible.

Operating AWD Vehicles With Spare Tires

A spare tire of a different size other than the tire provided should never be used. The AWD system may disable automatically and enter front-wheel drive only mode to protect driveline components if a non-full sized tire is installed. This condition may display an AWD OFF message in the information display. If there is an AWD OFF message in the information display from using a non-full sized spare tire, this indicator should turn off after reinstalling the repaired or replaced normal road tire and cycling the ignition off and on. It is recommended to reinstall the repaired or replaced road tire as soon as possible. Major dissimilar tire sizes between the front and rear axles (for example, 17 inch low profile tires on the front axle and 22 inch high profile tires on the rear axle) could cause the AWD system to stop functioning and default to front-wheel drive or damage the AWD system.

Operating AWD Vehicles With Mismatched Tires

WARNING

Only use replacement tires and wheels that are the same size, load index, speed rating and type (such as P-metric versus LT-metric or all-season versus all-terrain) as those originally provided by Ford. The recommended tire and wheel size may be found on either the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or the Tire Label which is located on the B-Pillar or edge of the driver's door. If this information is not found on these labels, then you should contact your authorized dealer as soon as possible. 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, transfer case or power transfer unit failure. If you have questions regarding tire replacement, contact your authorized dealer as soon as possible.

Major dissimilar tire sizes between the front and rear axles (for example, 17 inch low profile tires on the front axle and 22 inch high profile tires on the rear axle) could cause the AWD system to stop functioning and default to front-wheel drive or damage the AWD system. However, the AWD system is capable of tolerating any combination of new and worn tires of the same original tire size. For example, using 3 worn tread tires and 1 new tread tire all of the same original tire size, can be tolerated by the AWD system.

Driving In Special Conditions With All-Wheel Drive (AWD)

AWD vehicles are equipped for driving on sand, snow, mud and rough roads and have operating characteristics that are somewhat different from conventional vehicles, both on and off the highway.

When driving at slow speeds in deep sand under high outside temperatures, use a low gear when possible. Lower gear operation will maximize the engine and transmission cooling capability.

Under severe operating conditions, the A/C may cycle on and off to protect overheating of the engine.

Basic operating principles in special conditions

- Drive slower in strong crosswinds which can affect the normal steering characteristics of your vehicle.
- Be extremely careful when driving on pavement made slippery by loose sand, water, gravel, snow or ice.

If Your Vehicle Goes Off the Edge of the Pavement

- If your vehicle goes off the edge of the pavement, slow down, but avoid severe brake application, ease the vehicle back onto the pavement only after reducing your speed. Do not turn the steering wheel too sharply while returning to the road surface.
- It may be safer to stay on the apron or shoulder of the road and slow down gradually before returning to the pavement. You may lose control if you do not slow down or if you turn the steering wheel too sharply or abruptly.
- It often may be less risky to strike small objects, such as highway reflectors, with minor damage to your vehicle rather than attempt a sudden return to the pavement which could cause the vehicle to slide sideways out of control or rollover. Remember, your safety and the safety of others should be your primary concern.

If Your Vehicle Gets Stuck

WARNINGS

Always set the parking brake fully and make sure the transmission is in P (Park). Turn the ignition to the lock position or turn the vehicle off using the start/stop button 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 authorized dealer.

Do not spin the wheels at over 35 mph (56 km/h). The tires may fail and injure a passenger or bystander.

Note: *Do not rock the vehicle if the engine is not at normal operating temperature or damage to the transmission may occur.*

Note: *Do not rock the vehicle for more than a few minutes or damage to the transmission and tires may occur or the engine may overheat.*

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.

If your vehicle is equipped with AdvanceTrac® with Roll Stability Control™, it may be beneficial to disengage the AdvanceTrac® with Roll Stability Control™ system while attempting to rock the vehicle.

Emergency Maneuvers

- In an unavoidable emergency situation where a sudden sharp turn must be made, remember to avoid "over-driving" your vehicle (that is, turn the steering wheel only as rapidly and as far as required to avoid the emergency). Excessive steering will result in less vehicle control, not more. Additionally, smooth variations of the accelerator and/or brake pedal pressure should be utilized if changes in vehicle speed are called for. Avoid abrupt steering,

acceleration or braking which could result in an increased risk of loss of vehicle control, vehicle rollover and/or personal injury. Use all available road surface to return the vehicle to a safe direction of travel.

- In the event of an emergency stop, avoid skidding the tires and do not attempt any sharp steering wheel movements.
- If the vehicle goes from one type of surface to another (that is, from concrete to gravel) there will be a change in the way the vehicle responds to a maneuver (steering, acceleration or braking). Again, avoid these abrupt inputs.

Sand

Most of the time traction control improves tire traction by managing wheel slip through Brake, Engine, and AWD calibrations. However, during low speed driving, disabling traction control in deep sand can help keep the wheels moving to maintain vehicle momentum.

When driving over sand, try to keep all four wheels on the most solid area of the trail. Avoid reducing the tire pressures but shift to a lower gear and drive steadily through the terrain. Apply the accelerator slowly and avoid spinning the wheels.

Do not drive your vehicle in deep sand for an extended period of time. This could cause the AWD system to overheat and default to front-wheel drive. If this occurs, an AWD OFF message displays in the information display. To resume normal AWD function as soon as possible, stop the vehicle in a safe location and stop the engine for at least 10 minutes. After the engine has been restarted and the AWD system has adequately cooled, the AWD OFF message turns off and normal AWD function returns. In the event the engine is not stopped, the AWD OFF message turns off when the system cools and normal AWD function returns.

When driving at slow speeds in deep sand under high outside temperatures, use L (Low) gear when possible. L (Low) gear operation will maximize the engine and transmission cooling capability.

Under severe operating conditions, the A/C may cycle on and off to protect overheating of the engine.

Avoid excessive speed because vehicle momentum can work against you and cause the vehicle to become stuck to the point that assistance may be required from another vehicle. Remember, you may be able to back out the way you came if you proceed with caution.

Mud and Water

If you must drive through high water, drive slowly. Traction or brake capability may be limited.

When driving through water, determine the depth; avoid water higher than the bottom of the wheel rims (for cars) or the bottom of the hubs (for trucks) (if possible) and proceed slowly. If the ignition system gets wet, the vehicle may stall.

Once through water, always try the brakes. Wet brakes do not stop the vehicle as effectively as dry brakes. Drying can be improved by moving your vehicle slowly while applying light pressure on the brake pedal.

Be cautious of sudden changes in vehicle speed or direction when you are driving in mud. Even AWD vehicles can lose traction in slick mud. As when you are driving over sand, apply the accelerator slowly and avoid spinning your wheels. If the vehicle does slide, steer in the direction of the slide until you regain control of the vehicle.

After driving through mud, clean off residue stuck to rotating driveshafts and tires. Excess mud stuck on tires and rotating driveshafts causes an imbalance that could damage drive components.

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Note: *Driving through deep water may damage the transmission.*

If the front or rear axle is submerged in water, have the power transfer unit (PTU) or rear axle serviced by an authorized dealer.

E143950

"Tread Lightly" is an educational program designed to increase public awareness of land-use regulations and responsibilities in our nations wilderness areas. Ford Motor Company joins the U.S. Forest Service and the Bureau of Land Management in encouraging you to help preserve our national forest and other public and private lands by "treading lightly."

Driving on Hilly or Sloping Terrain

Note: *Avoid driving crosswise or turning on steep slopes or hills. A danger lies in losing traction, slipping sideways and possibly rolling over. Whenever driving on a hill, determine beforehand the route you will use. Do not drive over the crest of a hill without seeing what conditions are on the other side. Do not drive in reverse over a hill without the aid of an observer.*

Although natural obstacles may make it necessary to travel diagonally up or down a hill or steep incline, you should always try to drive straight up or straight down.

When climbing a steep slope or hill, start in a lower gear rather than downshifting to a lower gear from a higher gear once the ascent has started. This reduces strain on the engine and the possibility of stalling.

If you do stall out, do not try to turnaround because you might roll over. It is better to back down to a safe location.

Apply just enough power to the wheels to climb the hill. Too much power will cause the tires to slip, spin or lose traction, resulting in loss of vehicle control.

E143949

Descend a hill in the same gear you would use to climb up the hill to avoid excessive brake application and brake overheating. Do not descend in neutral; instead, disengage overdrive or manually shift to a lower gear. When descending a steep hill, avoid sudden hard braking as you could lose control. The front wheels have to be turning in order to steer the vehicle.

Your vehicle has anti-lock brakes, therefore apply the brakes steadily. Do not "pump" the brakes.

Driving on Snow and Ice

WARNING

If you are driving in slippery conditions that require tire chains or cables, then it is critical that you drive cautiously. Keep speeds down, allow for longer stopping distances and avoid aggressive steering to reduce the chances of a loss of vehicle control which can lead to serious injury or death. If the rear end of the vehicle slides while cornering, steer in the direction of the slide until you regain control of the vehicle.

Note: *Excessive tire slippage can cause driveline damage.*

AWD vehicles have advantages over 2WD vehicles in snow and ice but can skid like any other vehicle.

Should you start to slide while driving on snowy or icy roads, turn the steering wheel in the direction of the slide until you regain control.

Avoid sudden applications of power and quick changes of direction on snow and ice. Apply the accelerator slowly and steadily when starting from a full stop.

Avoid sudden braking as well. Although an AWD vehicle may accelerate better than a two-wheel drive vehicle in snow and ice, it won't stop any faster, because as in other vehicles, braking occurs at all four wheels. Do not become overconfident as to road conditions.

Make sure you allow sufficient distance between you and other vehicles for stopping. Drive slower than usual and consider using one of the lower gears. In emergency stopping situations, apply the brake steadily. Since your vehicle is equipped with a four wheel (ABS), do not "pump" the brakes. See **Hints on Driving With Anti-Lock Brakes** (page 150).

Maintenance and Modifications

The suspension and steering systems on your vehicle have been designed and tested to provide predictable performance whether loaded or empty and durable load carrying capability. For this reason, Ford Motor Company strongly recommends that you do not make modifications such as adding or removing parts (such as lowering kits or stabilizer bars) or by using replacement parts not equivalent to the original factory equipment.

Any modifications to a vehicle that raise the center of gravity can make it more likely the vehicle will rollover as a result of a loss of control. Ford Motor Company recommends that caution be used with any vehicle equipped with a high load or device (such as ladder or luggage racks).

Failure to maintain your vehicle properly may void the warranty, increase your repair cost, reduce vehicle performance and operational capabilities and adversely affect driver and passenger safety. Frequent inspection of vehicle chassis components is recommended if the vehicle is subjected to off-highway usage.

GENERAL INFORMATION

Note: *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. Have the system checked by an authorized dealer. If your vehicle has continuous vibration or shudder in the steering wheel while braking, have it checked by an authorized dealer.*

Note: *Brake dust may accumulate on the wheels, even under normal driving conditions. Some dust is inevitable as the brakes wear and does not contribute to brake noise. See* ***Cleaning the Alloy Wheels*** *(page 268).*

Note: *Depending on applicable laws and regulations in the country for which your vehicle was originally built, your brake lamps may flash during heavy braking. Following this, your hazard lights may also flash when your vehicle comes to a stop.*

See **Warning Lamps and Indicators** (page 85).

Wet brakes result in reduced braking efficiency. Gently press the brake pedal a few times when driving from a car wash or standing water to dry the brakes.

Brake Over Accelerator

In the event the accelerator pedal becomes stuck or entrapped, apply steady and firm pressure to the brake pedal to slow the vehicle and reduce engine power. If you experience this condition, apply the brakes and bring your vehicle to a safe stop. Move the transmission to park (P), switch the engine off and apply the parking brake. Inspect the accelerator pedal for any interference. If none are found and the condition persists, have your vehicle towed to the nearest authorized dealer.

Brake Assist

Brake assist detects when you brake rapidly by measuring the rate at which you press the brake pedal. It provides maximum braking efficiency as long as you press the pedal, and can reduce stopping distances in critical situations.

Anti-lock Brake System

This system helps you maintain steering control during emergency stops by keeping the brakes from locking.

This lamp momentarily illuminates when you turn the ignition on. If the light does not illuminate during start up, remains on or flashes, the system may be disabled. Have the system checked by an authorized dealer. If the anti-lock brake system is disabled, normal braking is still effective.

If the brake warning lamp illuminates when you release the parking brake, have the system checked by an authorized dealer.

HINTS ON DRIVING WITH ANTI-LOCK BRAKES

Note: *When the system is operating, the brake pedal may pulse and may travel further. Maintain pressure on the brake pedal. You may also hear a noise from the system. This is normal.*

The anti-lock braking system will not eliminate the risks when:

- You drive too closely to the vehicle in front of you.
- Your vehicle is hydroplaning.
- You take corners too fast.
- The road surface is poor.

PARKING BRAKE

WARNINGS

If the parking brake is fully released, but the brake warning lamp remains illuminated, then driving your vehicle could result in reduced braking ability, increased stopping distances and potential loss of brakes. See your authorized dealer as soon as possible.

Always set the parking brake fully and make sure the transmission is placed in park **(P).** Failure to set the parking brake and engage park could result in vehicle roll-away, property damage or bodily injury. Turn the ignition to the lock position and remove the key whenever you leave your vehicle.

To set the parking brake, press the parking brake pedal down to its fullest extent.

To release the parking brake, press the parking brake pedal down again.

HILL START ASSIST

WARNINGS

The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake. Failure to leave your vehicle securely parked may lead to a crash or injury. See **Parking Brake** (page 151).

You must remain in your vehicle when the system turns on. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

The system will turn off if a malfunction is apparent or if you rev the engine excessively. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

The system makes it easier to pull away when your vehicle is on a slope without the need to use the parking brake.

When the system is active, your vehicle remains stationary on the slope for two to three seconds after you release the brake pedal. This allows time to move your foot from the brake to the accelerator pedal. The system releases the brakes automatically once the engine has developed sufficient torque to prevent your vehicle from rolling down the slope. This is an advantage when pulling away on a slope, for example from a car park ramp, traffic lights or when reversing uphill into a parking space.

Note: *The system only functions when you bring your vehicle to a complete standstill in an uphill gear (for example, drive (D) when facing uphill or reverse (R) when facing downhill).*

Note: *There is no warning light to indicate the system is either on or off.*

Using Hill Start Assist

1. Press the brake pedal to bring your vehicle to a complete standstill. Keep the brake pedal pressed.
2. If the sensors detect that your vehicle is on a slope, the system activates automatically.

3. When you remove your foot from the brake pedal, your vehicle remains on the slope without rolling away for about two to three seconds. This hold time automatically extends if you are in the process of driving off.
4. Drive off in the normal manner. The system releases the brakes automatically.

Note: *When you remove your foot from the brake pedal and press the pedal again when the system is active, you will experience significantly reduced brake pedal travel. This is normal.*

Switching the System On and Off

Vehicles with Manual Transmission

You can switch this feature on or off in the information display. The system remembers the last setting when you start your vehicle.

Vehicles with Automatic Transmission

You cannot turn the system on or off. When you switch the ignition on, the system automatically turns on.

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PRINCIPLE OF OPERATION

The traction control system helps avoid drive wheel spin and loss of traction.

If your vehicle begins to slide, the system applies the brakes to individual wheels and, when needed, reduces engine power at the same time. If the wheels spin when accelerating on slippery or loose surfaces, the system reduces engine power in order to increase traction.

USING TRACTION CONTROL

WARNING

The stability and traction control light illuminates steadily if the system detects a failure. Make sure you did not manually disable the traction control system using the information display controls or the switch. If the stability control and traction control light is still illuminating steadily, have the system serviced by an authorized dealer immediately. Operating your vehicle with the traction control disabled could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

The system automatically turns on each time you switch the ignition on.

If your vehicle is stuck in mud or snow, switching traction control off may be beneficial as this allows the wheels to spin.

Note: *When you switch traction control off, stability control remains fully active.*

Switching the System Off

When you switch the system off or on, a message appears in the information display showing system status.

You can switch the system off by either using the information display controls or the switch.

Using the Information Display Controls

You can switch this feature off or on in the information display. See **Using Traction Control** (page 153).

Using a Switch (If Equipped)

Use the traction control switch on the instrument panel to switch the system off or on.

The switch illuminates when traction control is off.

System Indicator Lights and Messages

The stability and traction control light:

- Temporarily illuminates on engine start-up.
- Flashes when a driving condition activates either of the systems.
- Illuminates if a problem occurs in either of the systems.

The stability and traction control off light temporarily illuminates on engine start-up and stays on when you switch the traction control system off.

PRINCIPLE OF OPERATION

WARNINGS

Vehicle modifications involving braking system, aftermarket roof racks, suspension, steering system, tire construction and wheel and tire size may change the handling characteristics of your vehicle and may adversely affect the performance of the electronic stability control system. In addition, installing any stereo loudspeakers may interfere with and adversely affect the electronic stability control system. Install any aftermarket stereo loudspeaker as far as possible from the front center console, the tunnel, and the front seats in order to minimize the risk of interfering with the electronic stability control sensors. Reducing the effectiveness of the electronic stability control system could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

Remember that even advanced technology cannot defy the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions. Aggressive driving on any road condition can cause you to lose control of your vehicle increasing the risk of personal injury or property damage.

WARNINGS

Activation of the electronic stability control system is an indication that at least some of the tires have exceeded their ability to grip the road; this could reduce the operator's ability to control the vehicle potentially resulting in a loss of vehicle control, vehicle rollover, personal injury and death. If your electronic stability control system activates, SLOW DOWN.

The system automatically turns on each time you switch the ignition on.

If a driving condition activates either the stability control or the traction control system you may experience the following conditions:

- The stability and traction control light flashes.
- Your vehicle slows down.
- Reduced engine power.
- A vibration in the brake pedal.
- The brake pedal is stiffer than usual.
- If the driving condition is severe and your foot is not on the brake, the brake pedal may move as the system applies higher brake forces.

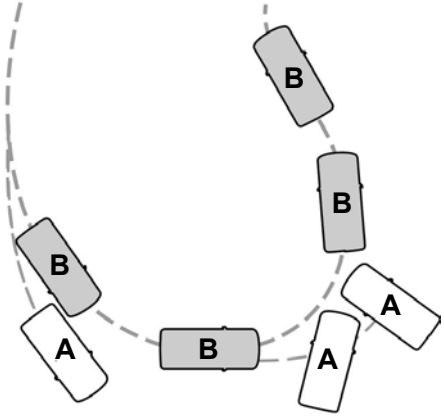
The stability control system has several features built into it to help you maintain control of your vehicle:

Electronic Stability Control

The system enhances your vehicle's ability to prevent skids or lateral slides by applying brakes to one or more of the wheels individually and, if necessary, reducing engine power.

Traction Control

The system enhances your vehicle's ability to maintain traction of the wheels by detecting and controlling wheel spin. See **Using Traction Control** (page 153).



E72903

A Vehicle without stability control skidding off its intended route.

B Vehicle with stability control maintaining control on a slippery surface.

USING STABILITY CONTROL

The system automatically turns on each time you switch the ignition on.

You cannot switch the stability control system off, but when you shift into reverse (R), the system deactivates.

You can switch the traction control system off or on. See **Using Traction Control** (page 153).

PRINCIPLE OF OPERATION

WARNINGS

To help avoid personal injury, please read and understand the limitations of the system as contained in this section. Sensing is only an aid for some (generally large and fixed) objects when moving on a flat surface at parking speeds. Certain objects with surfaces that absorb ultrasonic waves, surrounding vehicle's parking aid systems, traffic control systems, fluorescent lamps, inclement weather, air brakes, and external motors and fans may also affect the function of the sensing system; this may include reduced performance or a false activation.

To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.

This system is not designed to prevent contact with small or moving objects. The system is designed to provide a warning to assist the driver in detecting large stationary objects to avoid damaging your vehicle. The system may not detect smaller objects, particularly those close to the ground.

WARNINGS

Certain add-on devices such as large trailer hitches, bike or surfboard racks and any device that may block the normal detection zone of the system, may create false beeps.

Note: *Keep the sensors, located on the bumper or fascia, free from snow, ice and large accumulations of dirt. If the sensors are covered, the system's accuracy can be affected. Do not clean the sensors with sharp objects.*

Note: *If your vehicle sustains damage to the bumper or fascia, leaving it misaligned or bent, the sensing zone may be altered causing inaccurate measurement of obstacles or false alarms.*

Note: *The sensing system cannot be turned off when a MyKey is present. See* ***Principle of Operation*** *(page 50).*

Note: *If you attach certain add-on devices such as a trailer or bike rack, the rear sensing system may detect that add-on device and therefore provide warnings. It is suggested that you disable the rear sensing system when you attach an add-on device to your vehicle to prevent these warnings.*

The sensing system warns the driver of obstacles within a certain range of your vehicle. The system turns on automatically whenever you switch the ignition on.

The system can be switched off through the information display menu or from the pop-up message that appears once you shift the transmission into reverse (R). See **General Information** (page 89).

If a fault is present in the system, a warning message appears in the information display. See **Information Messages** (page 95).

REAR PARKING AID

The rear sensors are only active when the transmission is in reverse (R). As your vehicle moves closer to the obstacle, the rate of the audible warning increases. When the obstacle is less than 12 in (30 cm) away, the warning sounds continuously. If the system detects a stationary or receding object farther than 12 in (30 cm) from the corners of the bumper, the tone sounds for only three seconds. Once the system detects an object approaching, the warning sounds again.

E130178

Coverage area of up to 6 ft (1.8 m) from the rear bumper. There may be decreased coverage area at the outer corners of the bumper.

The system detects certain objects while the transmission is in reverse (R) :

- Your vehicle is moving toward a stationary object at a speed of 3 mph (5 km/h) or less.
- Your vehicle is not moving, but a moving object is approaching the rear of your vehicle at a speed of 3 mph (5 km/h) or less.
- Your vehicle is moving at a speed of less than 3 mph (5 km/h) and a moving object is approaching the rear of your vehicle at a speed of less than 3 mph (5 km/h).

The system provides audio warnings only when your vehicle is moving or when your vehicle is stationary and the detected obstacle is less than 12 in (30 cm) away from the bumper.

FRONT PARKING AID (If Equipped)

The front sensors are active when the transmission is in any position other than park (P) or neutral (N), and your vehicle is moving but at a speed below 6 mph (10 km/h).

E187330

Coverage area of up to 28 in (70 cm) from the front bumper. The coverage area decreases at the outer corners.

When your vehicle approaches an object, a warning tone sounds. When your vehicle moves closer to an object, the warning tone repeat rate increases. The warning tone sounds continuously when an object is 12 in (30 cm) or less from the front bumper.

If the transmission is in reverse (R), the front sensing system provides audio warnings when your vehicle is moving and the detected obstacle is stationary or moving towards your vehicle.

If the transmission is in drive (D) or any other forward gear (for example, low (L), sport (S) or any forward gear in a manual transmission), the front sensing system provides audio warnings when your vehicle is moving below a speed of 7 mph (12 km/h) and an obstacle is located inside the detection area.

ACTIVE PARK ASSIST (If Equipped)

WARNINGS

Designed to be a supplementary park aid, this system may not work in all conditions. This system cannot replace the driver's attention and judgment. The driver is responsible for avoiding hazards and maintaining a safe distance and speed, even when the system is in use.

Active Park Assist does not apply the brakes under any circumstances.

Note: *The driver is always responsible for controlling the vehicle, supervising the system and intervening if required by grabbing the steering wheel or pressing the active park assist button (if equipped).*

Note: *The sensors may not detect objects in heavy rain, snow or other conditions that cause disruptive reflections.*

Note: *Keep the sensors, located on the bumper or fascia, free from snow, ice and large accumulations of dirt. Covered sensors can affect the system's accuracy. Do not clean the sensors with sharp objects.*

Note: *The sensors may not detect objects with surfaces that absorb ultrasonic waves.*

Active Park Assist is an electric parking aid that uses ultrasonic sensors. The system detects an available parallel parking space and automatically steers your vehicle into the space (hands-free) while you control the accelerator, gearshift and brakes. The system visually and audibly instructs you to park your vehicle.

The system may not function correctly if something passes between the front bumper and the parking space (a pedestrian or cyclist) or if the edge of the neighboring parked vehicle is high off the ground (for example, a bus, tow truck or flatbed truck). If you are uncomfortable with the proximity to any vehicle or object, you may choose to override the system.

The system may not operate correctly in any of the following conditions:

- You use a spare tire or a tire significantly worn more than the other tires.
- One or more tires are improperly inflated.
- You try to park on a tight curve.

Do not use the system if:

- You have attached a bike rack, trailer or similar object to the front or rear of your vehicle, close to the sensors.
- You have attached an overhanging object (surfboard) to the roof.
- The front bumper or side sensors are damaged or obstructed (front bumper cover).
- The correct tire size is not in use on your vehicle (for example, a mini-spare tire).

Using Active Park Assist

Press the button to turn the system on or off.

When driving at a speed less than 22 mph (35 km/h), the system automatically scans both sides of your vehicle for an available parking space. A message and a corresponding graphic appears in the display screen to indicate it is searching for a parking space. Use the direction indicator to indicate which side of your vehicle you want the system to search.

Note: *If the direction indicator is not on, the system automatically searches on your vehicle's passenger side.*

E130107

When the system finds a suitable space, the touchscreen displays a message and a chime sounds. Slow down, continue moving forward and stop when another chime sounds and a message displays on the touchscreen, then follow the instructions on the touchscreen.

Note: *You must observe that the selected space remains clear of obstructions at all times in the maneuver.*

Note: *Active park assist may not detect vehicles with overhanging loads (a bus or a truck), street furniture and other items. You must make sure the selected space is suitable for parking.*

Note: *You should drive your vehicle within 5 ft (1.5 m) and as parallel to the other vehicles as possible while passing a parking space.*

Note: *The system always offers the last detected parking space (for example, if your vehicle detects multiple spaces while you are driving, it offers the last one).*

Note: *If driven above approximately 22 mph (35 km/h), the display screen shows a message to alert you to reduce your vehicle speed.*

Automatic Steering into Parking Space

Note: *If vehicle speed exceeds 22 mph (35 km/h) or the maneuver is interrupted (driver input is detected), the system switches off and you need to take full control of your vehicle.*

Note: *If a maneuver is interrupted before completion, the system switches off. The steering wheel position will not indicate the actualy position of the steering and you have to take full control of your vehicle.*

When you shift the transmission into reverse (R), with your hands off the wheel (and nothing obstructing its movement), your vehicle steers itself into the space. The system displays instructions to move your vehicle back and forth in the space.

When you think your vehicle has enough space in front and behind it, or you hear a solid tone from the parking aid (accompanied by a touchscreen display message and a chime), bring your vehicle to a complete stop.

When automatic steering is finished, the display screen displays a message and a chime sounds, indicating that the active park assist process is done. The driver is responsible for checking the parking job and making any necessary corrections before putting the transmission in park (P).

Deactivating the Park Assist Feature

Manually deactivate the system by:

- Pressing the active park assist button during an active maneuver.
- Grabbing the steering wheel during an active maneuver.
- Driving above approximately 22 mph (35 km/h) for 30 seconds during an active park search.
- Driving above 22 mph (35 km/h) during automatic steering.
- Turning off the traction control system.

Certain vehicle conditions can also deactivate the system, such as:

- Traction control has activated on a slippery or loose surface.
- There is an anti-lock brake system activation or failure.
- Something touches the steering wheel.

If a problem occurs with the system, a warning message is displayed, followed by a chime. Occasional system messages may occur in normal operation. For recurring or frequent system faults, contact an authorized dealer to have your vehicle serviced.

Troubleshooting the System

The system does not look for a space
The traction control system may be off.
The transmission is in reverse (R); your vehicle must be moving forward to detect a parking space.

The system does not offer a particular space
The sensors may be covered (for example, snow, ice or dirt buildup). Covered sensors can affect the system's functionality
There is not enough room in the parking space for your vehicle to safely park.
There is not enough space for the parking maneuver on the opposite side of the parking space.
The parking space is farther than 5 ft (1.5 m) or closer than 16 in (40 cm) away.
Your vehicle is going faster than 22 mph (35 km/h).
The transmission is in reverse (R). Your vehicle must be moving forward to be able to detect a parking space.

The system does not position your vehicle where I want in the space
Your vehicle is rolling in the opposite direction of the transmission (rolling forward when reverse [R] is selected).
An irregular curb along the parking space prevents the system from aligning your vehicle properly.
Vehicles or objects bordering the space may not be positioned correctly.
Your vehicle was pulled too far past the parking space. The system performs best when you drive the same distance past the parking space.
The tires may not be installed or maintained correctly (not inflated correctly, improper size, or of different sizes).
A repair or alteration has changed detection capabilities.
A parked vehicle has a high attachment (salt sprayer, snowplow, moving truck bed, etc).
The parking space length or position of parked objects changed after your vehicle passed.
The temperature around your vehicle changes quickly (driving from a heated garage into the cold, or after leaving a car wash).
You didn't wait for the steering to complete its rotation after a gear change. The system performs best when the steering wheel is allowed to finish rotating before accelerating.

REAR VIEW CAMERA

WARNINGS

The rear view camera system is a reverse aid supplement device that still requires the driver to use it in conjunction with the interior and exterior mirrors for maximum coverage.

WARNINGS

Objects that are close to either corner of the bumper or under the bumper, might not be seen on the screen due to the limited coverage of the camera system.

Back up as slow as possible since higher speeds might limit your reaction time to stop the vehicle.

WARNINGS

Use caution when using the rear video camera and the trunk is ajar. If the trunk is ajar, the camera will be out of position and the video image may be incorrect. All guidelines (if enabled) have been removed when the trunk is ajar.

WARNINGS

Use caution when turning camera features on or off while in R (Reverse). Make sure the vehicle is not moving.

The rear view camera system provides a video image of the area behind your vehicle. The image will display in either the rear view mirror or the display in the center of the instrument panel.

During operation, lines will appear in the display that represent your vehicle's path and proximity to objects behind your vehicle.

E192471

The camera is located on the trunk.

Using the Rear View Camera System

The rear view camera system displays what is behind your vehicle when you place the transmission in Reverse (R).

The system uses three types of guides to help you see what is behind your vehicle:

- Active guidelines: Show the intended path of your vehicle when reversing.
- Fixed guidelines: Show the actual path your vehicle is moving in while reversing in a straight line. This can be helpful when backing into a parking space or aligning your vehicle with another object behind you.
- Centerline (if applicable): Helps align the center of your vehicle with an object (trailer).

Note: *If the transmission is in Reverse (R) and the luggage compartment is ajar, no rear view camera features will display.*

Note: *If the image comes on while the transmission is not in Reverse (R), have the system inspected by an authorized dealer.*

Note: *When towing, the camera only sees what you are towing behind your vehicle. This might not provide adequate coverage and you might not see some objects. In some vehicles, the guidelines may disappear once you connect the trailer tow connector.*

The camera may not operate correctly under the following conditions:

- Nighttime or dark areas if the reverse lamps are not operating.
- Mud, water or debris obstructs the camera's view. Clean the lens with a soft, lint-free cloth and non-abrasive cleaner.
- The camera is misaligned due to damage to the rear of your vehicle.

The rear view camera system settings can be accessed through the information display. See **General Information** (page 89). After changing a system setting, the touch screen shows a preview of the selected features.

Guidelines and the Centerline

Note: *Active guidelines and fixed guidelines are only available when the transmission is in Reverse (R).*

Note: *The centerline is only available if Active or Fixed guidelines are on.*

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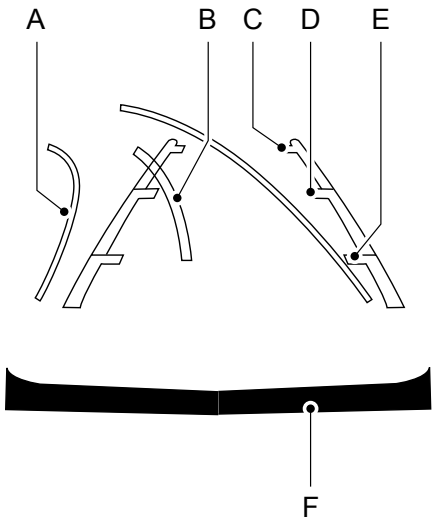


E142436

A Active guidelines (if equipped)
B Centerline
C Fixed guideline: Green zone
D Fixed guideline: Yellow zone
E Fixed guideline: Red zone
F Rear bumper

If your vehicle is equipped with active guidelines they are only available with fixed guidelines. To use active guidelines, turn the steering wheel to point the guidelines toward an intended path. If you change the steering wheel position while reversing, your vehicle might deviate from the original intended path.

The fixed and active guidelines fade in and out depending on your steering wheel position. When your steering wheel position is straight, the active guidelines are not visible.

Always use caution while reversing. Objects in the red zone are closest to your vehicle and objects in the green zone are farther away. Objects are getting closer to your vehicle as they move from the green zone to the yellow or red zones. Use the side view mirrors and rear view mirror to get better coverage on both sides and rear of your vehicle.

Enhanced Park Aids

Note: *Enhanced park aids are only available when the transmission is in Reverse (R).*

Note: *The reverse sensing system is not effective at speeds above 3 mph (5 km/h) and may not detect certain angular or moving objects.*

The system uses red, yellow and green highlights that appear on top of the video image when the reverse sensing system detects an object. The alert highlights the closest object detected. You can disable the reverse sensing alert if you have visual park aid alert enabled, you will still see the displayed highlighted areas.

Selectable settings for this feature are ON and OFF.

Manual Zoom

WARNING

When manual zoom is on, the full area behind your vehicle is not shown. Be aware of your surroundings when using the manual zoom feature.

Note: *Manual zoom is only available when the transmission is in Reverse (R).*

Note: *Only the centerline shows when you enable manual zoom.*

This allows you to get a closer view of an object behind your vehicle. The zoomed image keeps the bumper in the image to provide a reference. The zoom is only active while the transmission is in Reverse (R). When you shift the transmission out of Reverse (R), the feature automatically turns off and you must enable it to use it used again.

Selectable settings for this feature are ON and OFF.

Rear Camera Delay

When shifting the transmission out of Reverse (R) and into any gear other than Park (P), the camera image remains in the display until your vehicle speed reaches 6 mph (10 km/h or until you select a radio button.

Selectable settings for this feature are ON and OFF. The default setting for the rear camera delay is OFF.

PRINCIPLE OF OPERATION

Cruise control lets you maintain a set speed without keeping your foot on the accelerator pedal. You can use cruise control when your vehicle speed is greater than 20 mph (30 km/h).

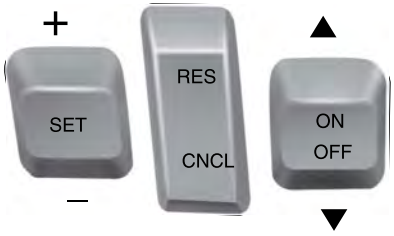
USING CRUISE CONTROL

WARNINGS

Do not use cruise control on winding roads, in heavy traffic or when the road surface is slippery. This could result in loss of vehicle control, serious injury or death.

When you are going downhill, your vehicle speed may increase above the set speed. The system will not apply the brakes. Change down a gear to assist the system in maintaining the set speed. Failure to do so could result in loss of vehicle control, serious injury or death.

Note: *Cruise control will disengage if the vehicle speed decreases more than 10 mph (16 km/h) below the set speed while driving uphill.*



E173592

The cruise controls are on the steering wheel.

Switching Cruise Control On

Press and release **ON**.

The indicator appears in the instrument cluster.

Setting the Cruise Speed

1. Drive to desired speed.
2. Press and release **SET+** or **SET-**.
3. Take your foot off the accelerator pedal.

The indicator changes color in the instrument cluster.

Changing the Set Speed

- Press and release **Set+** or **Set-**. When you select km/h as the display measurement in the information display the set speed changes in approximately 2 km/h increments. When you select mph as the display measurement in the information display the set speed changes in approximately 1 mph increments.
- Press and hold **Set+** or **Set-** to increase or decrease the set speed. Release the control when you reach the desired speed.
- Press the accelerator or brake pedal until you reach the desired speed. Press and release **Set+** or **Set-**.

Note: *If you accelerate by pressing the accelerator pedal, the set speed will not change. When you release the accelerator pedal, your vehicle returns to the speed that you previously set.*

Canceling the Set Speed

Press and release **CNCL** or tap the brake pedal. The set speed does not erase.

Resuming the Set Speed

Press and release **RES**.

Switching Cruise Control Off

Press and release **OFF** when the system is in stand by mode or switch the ignition off.

Note: *You erase the set speed when you switch the system off.*

USING ADAPTIVE CRUISE CONTROL (If Equipped)

WARNINGS

Always pay close attention to changing road conditions when using adaptive cruise control. The system does not replace attentive driving. Failing to pay attention to the road may result in a crash, serious injury or death.

Adaptive cruise control is not a crash warning or avoidance system.

Adaptive cruise control will not detect stationary or slow moving vehicles below 6 mph (10 km/h).

Adaptive cruise control does not detect pedestrians or objects in the road.

Adaptive cruise control does not detect oncoming vehicles in the same lane.

WARNINGS

Do not use the adaptive cruise control when entering or leaving a highway, in heavy traffic or on roads that are winding, slippery or unpaved.

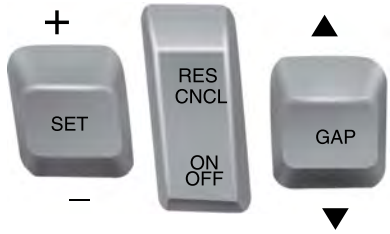
Do not use the system in poor visibility, for example fog, heavy rain, spray or snow.

Do not use adaptive cruise control when towing a trailer that has trailer brakes. The auto-brake component of the adaptive cruise control system does not operate the trailer brakes. Using adaptive cruise control when towing a trailer that has trailer brakes may result in the loss of vehicle control, which could result in serious injury.

Do not use tire sizes other than those recommended because this can affect the normal operation of the system. Failing to do so may result in a loss of vehicle control, which could result in serious injury.

Note: *It is your responsibility to stay alert, drive safely and be in control of the vehicle at all times.*

The system adjusts your speed to maintain a proper distance between you and the vehicle in front of you in the same lane. You can select from one of four gap settings.



E173593

The adaptive cruise controls are on the steering wheel.

Setting Adaptive Cruise Control

Press and release **ON**.

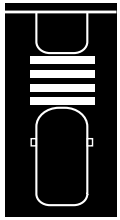
The indicator appears in the instrument cluster.

E173594

The current gap setting and **SET** also appears in the instrument cluster.

Setting the Adaptive Cruise Speed

1. Drive to desired speed.
2. Press and release **Set+** or **Set-**.
3. Take your foot off the accelerator pedal.
4. The information display will show a green indicator light, current gap setting and desired set speed.


E173595

5. A vehicle graphic illuminates if there is a vehicle detected in front of you.

Note: *When adaptive cruise control is active, the speedometer may vary slightly from the set speed displayed in the information display.*

Following a Vehicle

WARNINGS

When following a vehicle in front of you, your vehicle will not decelerate automatically to a stop, nor will your vehicle always decelerate quickly enough to avoid a crash without driver intervention. Always apply the brakes when necessary. Failing to do so may result in a crash, serious injury or death.

Adaptive cruise control only warns of vehicles detected by the radar sensor. In some cases there may be no warning or a delayed warning. You should always apply the brakes when necessary. Failing to do so may result in a crash, serious injury or death.

Note: *The brakes may emit a sound when modulated by the adaptive cruise control system.*

When a vehicle ahead of you enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed adjusts to maintain a preset gap distance. The distance setting is adjustable.

The lead vehicle graphic will illuminate.

To help you pass a vehicle in front of you, the adaptive cruise control system may provide a small temporary acceleration when you switch on your left turn signal while following a lead car.

Your vehicle maintains a consistent gap from the vehicle ahead until:

- the vehicle in front of you accelerates to a speed above the set speed
- the vehicle in front of you moves out of your lane or out of view
- the vehicle speed falls below 16 mph (26 km/h)
- a new gap distance is set.

The vehicle will apply the brakes to slow the vehicle to maintain a safe distance from the vehicle in front. The maximum braking which the system can apply is limited. You can override the system by applying the brakes.

If the system predicts that its maximum braking level will not be sufficient, an audible warning will sound while the system continues to brake. This is accompanied by a heads-up display; a red warning bar illuminating on the windshield. You should take immediate action.

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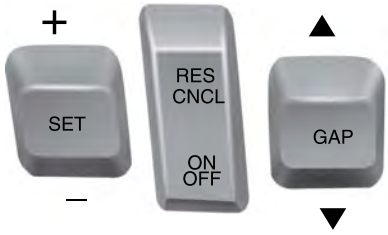
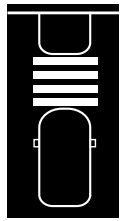
Setting the Gap Distance

Note: *It is your responsibility to select a gap appropriate to the driving conditions.*



E173593

You can decrease or increase the distance between your vehicle and the vehicle in front by pressing the gap control.



E173595

The selected gap appears in the information display as shown by the bars in the graphic. Four gap distance settings are available.

Adaptive cruise control, distance between vehicle settings

Set speed mph (km/h)	Graphic display, bars indicated between vehicles	Time gap, seconds	Distance gap yd (m)	Dynamic behavior
62 (100)	1	1	31 (28)	Sport
62 (100)	2	1.4	43 (39)	Normal
62 (100)	3	1.8	55 (50)	Normal
62 (100)	4	2.2	67 (61)	Comfort

Each time you start the vehicle, the system will select the last chosen gap for the current driver.

Disengaging Adaptive Cruise Control

Press the brake pedal or press **CNCL**. The last set speed will appear in grey.

Overriding Adaptive Cruise Control

WARNING

Whenever the driver is overriding the system by pressing the accelerator pedal, the system will not automatically apply the brakes to maintain separation from any vehicle ahead.

You can override the set speed and gap distance by pressing the accelerator pedal.

When you override the system, the green indicator light illuminates and the lead vehicle graphic does not show in the information display.

The system will resume operation when you release the accelerator pedal. The vehicle speed will decrease to the set speed, or a lower speed if following a slower vehicle.

Changing the Set Speed

- Press and release **Set+** or **Set-**. When you select km/h as the display measurement in the information display the set speed changes in approximately 2 km/h increments. When you select mph as the display measurement in the information display the set speed changes in approximately 1 mph increments.
- Press and hold **Set+** or **Set-** to increase or decrease the set speed. Release the control when you reach the desired speed.
- Press the accelerator or brake pedal until you reach the desired speed. Press and release **Set+** or **Set-**.

The system may apply the brakes to slow the vehicle to the new set speed. The set speed displays continuously in the information display when the system is active.

Note: *If you accelerate by pressing the accelerator pedal, the set speed will not change. When you release the accelerator pedal, your vehicle returns to the speed that you previously set.*

Resuming the Set Speed

Note: *Only use resume if you are aware of the set speed and intend to return to it.*

Press and release **RES**. The vehicle will return to the previously set speed. The set speed will display continuously in the information display while the system is active.

Low Speed Automatic Cancellation

The system is not functional at vehicle speeds below 16 mph (26 km/h). An audible alarm will sound and the automatic braking releases if the vehicle drops below this speed.

Hilly Condition Usage

Note: *An audible alarm will sound and the system will shut down if it is applying brakes for an extended period of time. This allows the brakes to cool down. The system will function normally again when the brakes have cooled down.*

You should select a lower gear position when the system is active in situations such as prolonged downhill driving on steep grades, for example in mountainous areas. The system needs additional engine braking in these situations to reduce the load on the vehicle's regular brake system to prevent them from overheating.

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Switching the System Off

Note: *The set speed memory erases when you switch off the system.*

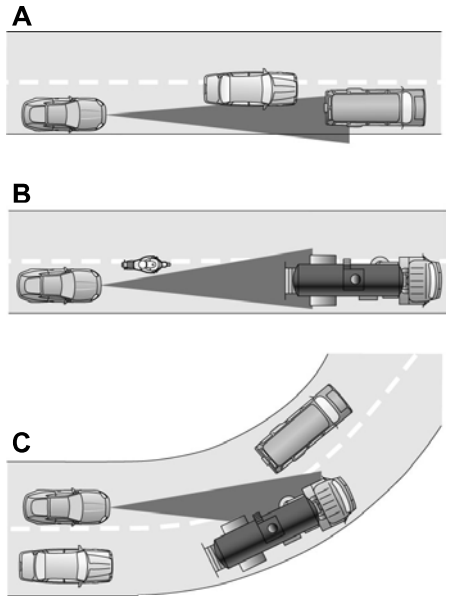
Press and release **OFF** or turn off the ignition.

Detection Issues

WARNING

On rare occasions, detection issues can occur due to the road infrastructures, for example bridges, tunnels and safety barriers. In these cases, the system may brake late or unexpectedly. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required.

The radar sensor has a limited field of vision. It may not detect vehicles at all or detect a vehicle later than expected in some situations. The lead vehicle graphic will not illuminate if the system does not detect a vehicle in front of you.



E71621

Detection issues can occur:

A When driving on a different line than the vehicle in front.

B With vehicles that edge into your lane. The system can only detect these vehicles once they move fully into your lane.

C There may be issues with the detection of vehicles in front when driving into and coming out of a bend or curve in the road.

In these cases the system may brake late or unexpectedly. The driver should stay alert and intervene when necessary.

If something hits the front end of your vehicle or damage occurs, the radar-sensing zone may change. This could cause missed or false vehicle detections. See an authorized dealer to have the radar checked for proper coverage and operation.

Blocked Sensor

E145632

A message displays if something obstructs the radar signals from the sensor. The sensor is located behind a fascia cover near the driver side of the lower grille. The system cannot detect a vehicle ahead and will not function when something obstructs the radar signals. The following table lists possible causes and actions for this message displaying.

Cause	Action
The surface of the radar in the grille is dirty or obstructed in some way.	Clean the grille surface in front of the radar or remove the object causing the obstruction.
The surface of the radar in the grille is clean but the message remains in the display.	Wait a short time. It may take several minutes for the radar to detect that it is free from obstruction.
Heavy rain or snow is interfering with the radar signals.	Do not use the system in these conditions because it may not detect any vehicles ahead.
Swirling water, or snow or ice on the surface of the road may interfere with the radar signals.	Do not use the system in these conditions because it may not detect any vehicles ahead.
You are in a desert or remote area with no other vehicles and no roadside objects.	Wait a short time or switch to normal cruise control.

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Due to the nature of radar technology, it is possible to get a blockage warning and not be blocked. This can happen, for example, when driving in sparse rural or desert environments. A false blocked condition will either self clear or clear after a key cycle.

Switching to Normal Cruise Control

WARNING

Normal cruise control will not brake due to slower vehicles. Always be aware of which mode you have selected and apply the brakes when necessary.

You can manually change from adaptive cruise control to normal cruise control through the information display.

The cruise control indicator light replaces the adaptive cruise control indicator light if you select normal cruise control.

The gap setting will not display, the system will not automatically respond to lead vehicles and automatic braking will not activate. The system defaults to adaptive cruise control when you start the vehicle.

DRIVER ALERT (If Equipped)

WARNING

The driver alert system is designed to aid you. It is not intended to replace your attention and judgment. You are still responsible to drive with due care and attention.

Note: *The system will store the on or off setting in the information display menu through ignition cycles.*

Note: *If enabled in the menu, the system will be active at speeds above 40 mph (64 km/h). When below the activation speed, the information display will inform you that the system is unavailable.*

Note: *The system works as long as one lane marking can be detected by the camera.*

Note: *If the camera is blocked or if the windshield is damaged, the system may not function.*

Note: *The system may not be available in poor weather or other low visibility conditions.*

The system automatically monitors your driving behavior using various inputs including the front camera sensor.

If the system detects that your driving alertness is reduced below a certain threshold, the system will alert you using a chime and a message in the information display.

Using Driver Alert

Switching the system on and off

You may switch the system on or off through the information display by selecting Settings then Driver Assist then Driver Alert in the menu. When activated, the system will monitor your alertness level based upon your driving behavior in relation to the lane markings, and other factors.

System Warnings

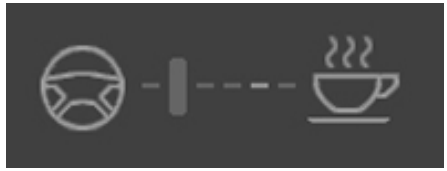
Note: *The system will not issue warnings below approximately 40 mph (64 km/h).*

The warning system is in two stages. At first the system issues a temporary warning that you need to take a rest. This message will only appear for a short time. If the system detects further reduction in driving alertness, another warning may be issued which will remain in the information display for a longer time. Press OK on the steering wheel control to clear the warning.

System Display

When active the system will run automatically in the background and only issue a warning if required. You can view the status at any time using the information display. See **General Information** (page 89).

The alertness level is shown by six steps in a colored bar.



E131358

The current assessment of your alertness is within a typical range.

E131359

The current assessment of your alertness indicates that you should rest as soon as safely possible.

The status bar will travel from left to right as the calculated alertness level decreases. As the rest icon is approached the color turns from green to yellow to red. The yellow position indicates the first warning is active and the red position indicates the second warning is active.

Note: *If you have recently received a warning; you should consider resting, even if the current assessment is within the typical range.*

Note: *If the camera sensor cannot track the road lane markings or if your vehicle speed drops below approximately 40 mph (64 km/h), the alertness level will change to grey for a short time and the information display will inform you that the system is unavailable.*

Resetting the System

You can reset the system by either:

- Switching the ignition off and on.
- Stopping the vehicle and then opening and closing the driver's door.

LANE KEEPING SYSTEM (If Equipped)

WARNING

The system is designed to aid the driver. It is not intended to replace your attention and judgment. You are still responsible to drive with due care and attention.

Note: *The system works above 40 mph (64 km/h).*

Note: *The system works as long as the camera can detect one lane marking.*

Note: *The system may not function if the camera is blocked or there is damage to the windshield.*

Note: *When Aid mode is on and the system detects no steering activity for a short period, the system will alert you to put your hands on the steering wheel. The system may detect a light grip or touch on the steering wheel as hands off driving.*

The system notifies you to stay in your lane through the steering system and the instrument cluster display when the front camera detects an unintentional drift out of your lane is likely to occur. The system automatically detects and tracks the road lane markings using a camera mounted behind the interior rear view mirror.

Switching the System On and Off

Note: *The system on or off setting is stored until it is manually changed, unless a MyKey® is detected. If the system detects a MyKey®, it defaults to on and the mode is set to alert.*

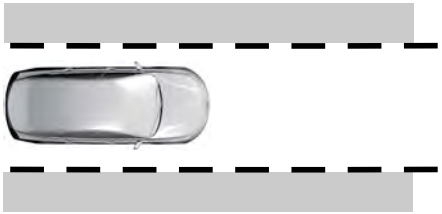
Note: *If a MyKey® is detected, pressing the button will not affect the on or off status of the system. You can only change the mode and intensity settings.*

Press the button located on the center console to switch the system on or off.

System Settings

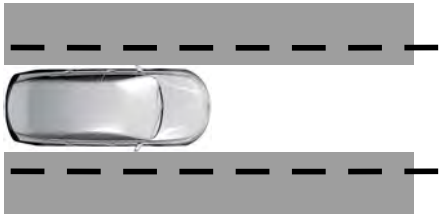
The system has one standard feature setting and one optional setting menu available. To view or adjust the settings, See **General Information** (page 89). The system stores the last known selection for each of these settings. You do not need to readjust your settings each time you turn on the system.

Mode: This setting allows you to select which of the system features you can enable.



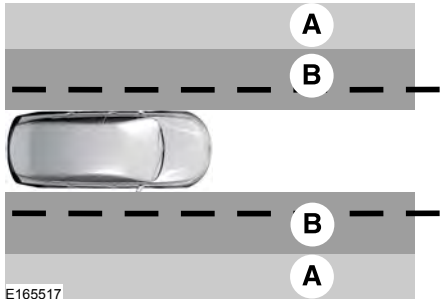
E165515

Alert only – Provides a steering wheel vibration when an unintended lane departure is detected.



E165516

Aid only – Provides a steering wheel vibration when the system detects an unintended lane departure.



E165517

A Alert
B Aid

Alert + Aid – Provides an assistance steering torque input toward the lane center. If your vehicle continues drifting out of the lane, the system provides a steering wheel vibration.

Note: *The alert and aid diagrams illustrate general zone coverage. They do not provide exact zone parameters.*

Intensity: This setting affects the intensity of the steering wheel vibration used for the alert and alert + aid modes. This setting does not affect the aid mode.

- Low
- Medium
- High

System Display

When you switch on the system, an overhead graphic of a vehicle with lane markings will display in the information display.

If you select aid mode when you switch on the system, arrows will be displayed with lane markings.

When you switch off the system, the lane marking graphics will not display.

Note: *The overhead vehicle graphic may still be displayed if adaptive cruise control is enabled.*

While the system is on, the color of the lane markings will change to indicate the system status.

Gray: Indicates that the system is temporarily unable to provide a warning or intervention on the indicated side(s). This may be because:

- Your vehicle is under the activation speed.
- Your turn indicator is active.
- Your vehicle is in a dynamic maneuver.
- The road has no or poor lane markings in the camera field-of-view.
- The camera is obscured or unable to detect the lane markings due to environmental conditions (significant sun angles, shadows, snow, heavy rain, fog), traffic conditions (following a large vehicle that is blocking or shadowing the lane), or vehicle conditions (poor headlamp illumination).

See **Troubleshooting** for additional information.

Green: Indicates that the system is available or ready to provide a warning or intervention, on the indicated side(s).

Yellow: Indicates that the system is providing or has just provided a lane keeping aid intervention.

Red: Indicates that the system is providing or has just provided a lane keeping alert warning.

You can temporarily disable the system at any time by doing the following

- Quick braking.
- Fast acceleration.
- Using your direction indicator.
- Evasive steering maneuver.

Troubleshooting

Why is the feature not available (line markings are gray) when I can see the lane markings on the road?
Vehicle speed is outside the operational range of the feature
Sun is shining directly into the camera lens
Quick intentional lane change

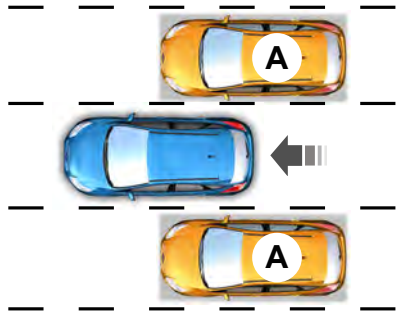
Why is the feature not available (line markings are gray) when I can see the lane markings on the road?
Staying too close to the lane marking
Driving at high speeds in curves
Previous feature activation happened within the last one second
Ambiguous lane markings (mainly in construction zones)
Rapid transition from light to dark or vice versa
Sudden offset in lane markings
ABS or AdvanceTrac activation
Camera blockage due to dirt, grime, fog, frost or water on the windshield
Driving too close to the vehicle in front of you
Transitioning between no lane markings to lane markings or vice versa
Standing water on the road
Faint lane markings (partial yellow lane markings on concrete roads)
Lane width too narrow or too wide
Camera not calibrated after a windshield replacement
Driving on tight roads or on uneven roads
Vehicle accessories such as snow plows

Why does the vehicle not come back into the middle of the lane always, as expected, in the Aid or Aid + Alert mode?
High cross winds
Large road crown
Rough roads, grooves, shoulder drop-offs
Heavy uneven loading of the vehicle or improper tire inflation pressure
If the tires have been exchanged (including snow tires), or the suspension has been modified
Vehicle accessories such as snow plows or trailers

BLIND SPOT INFORMATION SYSTEM

WARNING

To help avoid injuries, NEVER use the Blind Spot Information System as a replacement for using the interior and exterior mirrors or looking over your shoulder before changing lanes. The Blind Spot Information System is not a replacement for careful driving.



E124788

The Blind Spot Information System is designed to aid you in detecting vehicles that may have entered the blind spot zone (A). The detection area is on both sides of your vehicle, extending rearward from the exterior mirrors to approximately 13 ft (4 m) beyond the bumper. The system is designed to alert you if certain vehicles enter the blind spot zone while driving.

Note: *The Blind Spot Information System does not prevent contact with other vehicles or objects; nor detect parked vehicles, people, animals or infrastructure (fences, guardrails, trees). It's only designed to alert you to vehicles in the blind spot zones.*

Note: *When a vehicle passes quickly through the blind spot zone, typically fewer than two seconds, the system does not trigger.*

Using the System

The Blind Spot Information System turns on when you start the engine and you drive your vehicle forward above 5 mph (8 km/h).

For automatic transmissions, the Blind Spot Information System remains on while the transmission is in drive (D). If shifted into reverse (R) or park (P) the Blind Spot Information System turns off. Once shifted back into drive (D), the Blind Spot Information System turns back on when you drive your vehicle above 5 mph (8 km/h).

For manual transmissions, the Blind Spot Information System is on for all gears except the reverse (R).

Note: *The Blind Spot Information System does not function in reverse (R) or park (P).*

System Lights and Messages

E142442

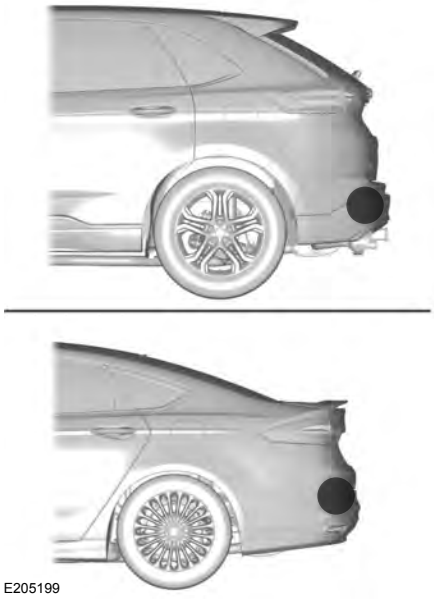
The Blind Spot Information System illuminates an amber alert indicator in the outside mirror on the side of your vehicle the approaching vehicle is coming from.

The alert indicator dims when the system detects nighttime darkness.

System Sensor Blockage

WARNING

To help avoid injuries, NEVER use the Blind Spot Information System as a replacement for using the interior and exterior mirrors or looking over your shoulder before changing lanes. The Blind Spot Information System is not a replacement for careful driving.


E205199

The system uses radar sensors that are located behind the bumper fascia on each side of your vehicle. Any dirt, mud and snow in front of the sensors and/or driving in heavy rain can cause system degradation. Also, other types of obstructions in front of the sensor can cause system degradation. This is referred to as a 'blocked' condition.

Note: *Do not apply bumper stickers and/or repair compound to these areas, this can cause degraded system performance.*

If the system detects a degraded performance condition, a message warning of a blocked sensor will appear in the information display. Also the system alert indicators will remain ON and the system will no longer provide any vehicle warnings. You can clear the information display warning but the alert indicators will remain illuminated.

A "blocked" condition can be cleared in two ways:

- After the blockage in front of the sensors is removed or the rainfall/snowfall rate decreases or stops, drive for a few minutes in traffic to allow the sensors to detect passing vehicles.
- By cycling the ignition from ON to OFF and then back ON.

Note: *When towing a trailer, the sensors may detect the trailer thus causing a false alert. It may be desirable to turn the Blind Spot Information System off if the false alerts become annoying.*

System Errors

If the system senses a problem with the left or right sensor, the telltale will illuminate and a message will appear in the information display. See **Information Messages** (page 95).

Switching the System Off and On

You can temporarily switch the Blind Spot Information System off in the information display. See **General Information** (page 89). When the Blind Spot Information System switches off, you will not receive alerts and the information display shows a system off message. The telltale in the cluster also illuminates. When you switch the Blind Spot Information System on or off, the alert indicators flash twice.

Note: *The system switches back on every time you start your vehicle.*

You can also have the Blind Spot Information System switched off permanently at an authorized dealer. Once switched off permanently, the system can only be switched back on at an authorized dealer.

CROSS TRAFFIC ALERT

WARNING

To help avoid personal injury, NEVER use the Cross Traffic Alert system as a replacement for using the interior and exterior mirrors and looking over your shoulder before backing out of a parking space. Cross Traffic Alert is not a replacement for careful driving.

Cross Traffic Alert is designed to warn you of vehicles approaching from the sides when the transmission is in reverse (R).

Using the System

Cross Traffic Alert turns on when you start the engine and you shift into reverse (R). Once shifted out of reverse (R), Cross Traffic Alert turns off.

Note: *Cross Traffic Alert only functions while your transmission is in reverse (R).*

Cross Traffic Alert is designed to alert the driver of certain collision risks. Coverage decreases when the sensors are partially, mostly or fully obstructed. Reversing slowly helps increase the coverage area and effectiveness.

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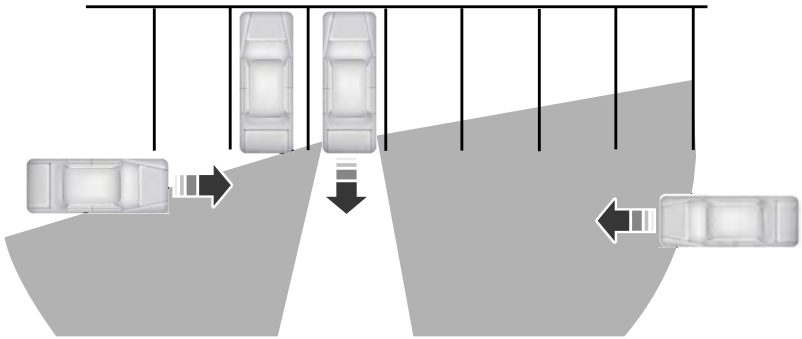
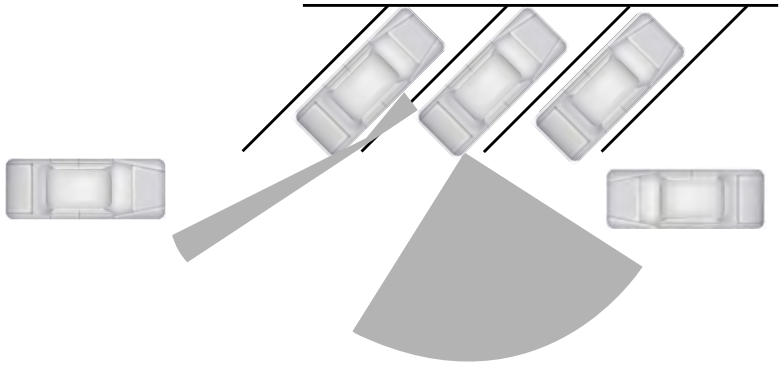


E142440

In this first example, the left sensor is only partially obstructed; zone coverage to the right is nearly maximized.



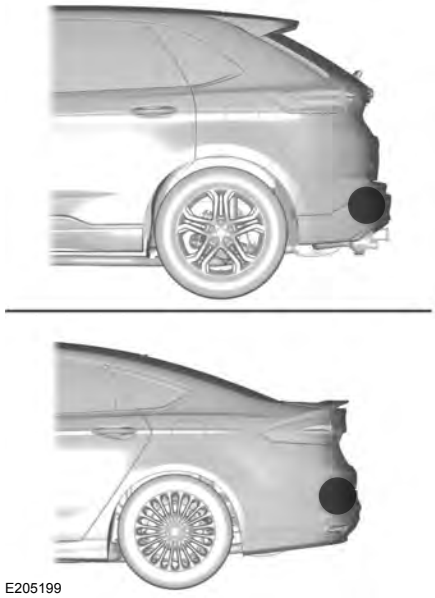
E142441

Zone coverage also decreases when parking at shallow angles. Here, the left sensor is mostly obstructed; zone coverage on that side is severely limited.

System Lights, Messages and Audible Alerts

E142442

The Cross Traffic Alert illuminates an amber alert indicator in the outside mirror on the side of your vehicle the approaching vehicle is coming from. Cross Traffic Alert also sounds an audible alert and a message appears in the information display indicating a vehicle is coming from the right or left. Cross Traffic Alert works with the reverse sensing system that sounds its own series of tones. See **Rear Parking Aid** (page 156).



E205199

The system uses radar sensors that are located behind the bumper fascia on each side of your vehicle. Do not allow mud, snow or bumper stickers to obstruct these areas, this can cause degraded system performance. See **Blind Spot Information System** (page 179). If the Blind Spot Information System is blocked, Cross Traffic Alert is also blocked. A corresponding message appears in the information display as soon as you shift the transmission into reverse (R).

System Limitations

Cross Traffic Alert has its limitations; situations such as severe weather conditions or debris build-up on the sensor area may limit vehicle detection.

The following are other situations that may limit the Cross Traffic Alert performance:

- Stationary or slow moving vehicles.
- Pedestrians or objects in the roadway.
- Oncoming vehicles in the same lame.
- Severe weather conditions.
- Debris build-up near or around the sensor(s).
- Small distance to the vehicle ahead.

Certain conditions may reduce the visibility of the warning lamp; therefore, it is recommended to keep the audible warning on.

If the front end of the vehicle is hit or damaged, the radar sensing zone may be altered causing missed or false collision warnings. See your authorized dealer to have your collision warning radar checked for proper coverage and operation.

False Alerts

Note: *When towing a trailer, the sensors may detect the trailer thus causing a false alert. It may be desirable to turn the Blind Spot Information System off if the false alerts become annoying.*

There may be certain instances when there is a false alert by the Cross Traffic Alert system that illuminates the alert indicator with no vehicle in the coverage zone. Some amount of false alerts are normal; they are temporary and self-correct.

System Errors

If Cross Traffic Alert senses a problem with the left or right sensor a message will appear in the information display. See **General Information** (page 89).

Switching the System Off and On

You can temporarily switch Cross Traffic Alert off in the information display. See **General Information** (page 89). When you switch Cross Traffic Alert off, you will not receive alerts and the information display will display a system off message.

Note: *The Cross Traffic Alert switches on whenever the ignition is switched on and ready to provide appropriate alerts when the transmission is in reverse (R). Cross Traffic Alert will not remember the last selected on or off setting.*

You can also have Cross Traffic Alert switched off permanently at an authorized dealer. Once switched off permanently, the system can only be switched back on at an authorized dealer.

STEERING

Electric Power Steering

WARNINGS

The electric power steering system has diagnostic checks that continuously monitor the system. If a fault is detected, a message displays in the information display. Stop your vehicle as soon as it is safe to do so. Switch the ignition off. After at least 10 seconds, switch the ignition on and watch the information display for a steering system warning message. If a steering system warning message returns, have the system checked by an authorized dealer.

If the system detects an error, you may not feel a difference in the steering, however a serious condition may exist. Obtain immediate service from an authorized dealer, failure to do so may result in loss of steering control.

Your vehicle has an electric power steering system. There is no fluid reservoir. No maintenance is required.

If your vehicle loses electrical power while you are driving, electric power steering assistance is lost. The steering system still operates and you can steer your vehicle manually. Manually steering your vehicle requires more effort.

Extreme continuous steering may increase the effort required for you to steer your vehicle. This increased effort prevents overheating and permanent damage to the steering system. You do not lose the ability to steer your vehicle manually. Typical steering and driving maneuvers allow the system to cool and return to normal operation.

Steering Tips

If the steering wanders or pulls, check for:

- Correct tire pressures.
- Uneven tire wear.
- Loose or worn suspension components.
- Loose or worn steering components.
- Improper vehicle alignment.

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

Adaptive Learning

The electronic power steering system adaptive learning helps correct road irregularities and improves overall handling and steering feel. It communicates with the brake system to help operate advanced stability control and accident avoidance systems. Additionally, whenever the battery is disconnected or a new battery installed, you must drive your vehicle a short distance before the system relearns the strategy and reactivates all systems.

COLLISION WARNING SYSTEM

(If Equipped)

PRINCIPLE OF OPERATION

WARNINGS

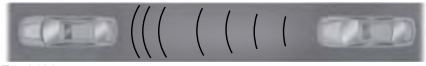
This system is designed to be a supplementary driving aid. It is not intended to replace the driver's attention, and judgment, or the need to apply the brakes. This system does NOT activate the brakes automatically. Failure to press the brake pedal to activate the brakes may result in a collision.

WARNINGS

The collision warning system with brake support cannot help prevent all collisions. Do not rely on this system to replace driver judgment and the need to maintain distance and speed.

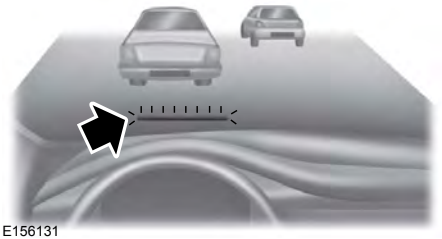
Note: *The system does not detect, warn or respond to potential collisions with vehicles to the rear or sides of the vehicle.*

Note: *The collision warning system is active at speeds above approximately 5 mph (8 km/h).*



E156130

This system is designed to alert the driver of certain collision risks. A radar detects if your vehicle is rapidly approaching another vehicle traveling in the same direction as yours.



E156131

If it is, a red warning light illuminates and an audible warning chime sounds.

The brake support system assists the driver in reducing the collision speed by charging the brakes. If the risk of collision further increases after the warning light illuminates, the brake support prepares the brake system for rapid braking. This may be apparent to the driver. The system does not automatically activate the brakes but, if the brake pedal is pressed, full force braking is applied even if the brake pedal is lightly pressed.

Using the Collision Warning System

WARNING

The collision warning system's brake support can only help reduce the speed at which a collision occurs if the driver applies the vehicle's brakes. The brake pedal must be pressed just like any typical braking situation.

The warning system sensitivity can be adjusted to one of three possible settings by using the information display control. See **General Information** (page 89).

Note: *If collision warnings are perceived as being too frequent or disturbing then the warning sensitivity can be reduced, though the manufacturer recommends using the highest sensitivity setting where possible. Setting lower sensitivity would lead to fewer and later system warnings. See* ***General Information*** *(page 89).*

Blocked Sensors

E145632

If a message regarding a blocked sensor appears in the information display, the radar signals from the sensor have been obstructed. The sensors are located behind a fascia cover near the driver side of the lower grille. When the sensors are obstructed, a vehicle ahead cannot be detected and the collision warning system does not function. The following table lists possible causes and actions for this message being displayed.

Cause	Action
The surface of the radar in the grille is dirty or obstructed in some way	Clean the grille surface in front of the radar or remove the object causing the obstruction
The surface of the radar in the grille is clean but the message remains in the display	Wait a short time. It may take several minutes for the radar to detect that it is no longer obstructed
Heavy rain, spray, snow, or fog is interfering with the radar signals	The collision warning system is temporarily disabled. Collision warning should automatically reactivate a short time after the weather conditions improve
Swirling water, or snow or ice on the surface of the road may interfere with the radar signals	The collision warning system is temporarily disabled. Collision warning should automatically reactivate a short time after the weather conditions improve

System Limitations

WARNING

The collision warning system's brake support can only help reduce the speed at which a collision occurs if the driver applies the vehicle's brakes. The brake pedal must be pressed just like any typical braking situation.

Due to the nature of radar technology, there may be certain instances where vehicles do not provide a collision warning. These include:

- Stationary vehicles or vehicles moving below 6 mph (10 km/h).
- Pedestrians or objects in the roadway.
- Oncoming vehicles in the same lane.
- Severe weather conditions (see blocked sensor section).
- Debris build-up on the grille near the headlamps (see blocked sensor section).
- Small distance to vehicle ahead.
- Steering wheel and pedal movements are large (very active driving style).

If the front end of the vehicle is hit or damaged, the radar sensing zone may be altered causing missed or false collision warnings. See your authorized dealer to have your collision warning radar checked for proper coverage and operation.

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DRIVE CONTROL

LINCOLN DRIVE CONTROL

Lincoln Drive Control delivers the Lincoln driving experience through a suite of sophisticated electronic vehicle systems. These systems continuously monitor your driving inputs and the road conditions to optimize ride comfort, steering, handling, powertrain response and sound. You can preset your preferences for these systems within the information display. Lincoln Drive Control will respond to your preferences based on what gear position you select. This provides a single location to control multiple systems performance settings.

Lincoln Drive Control consists of the following systems:

- Continuously controlled damping dynamically adjusts the shock absorbers stiffness in real time to match the road surface and driver inputs. This system continuously monitors your vehicle's motion (roll, pitch, bounce), suspension position, load, speed, road conditions, and steering to adjust the suspension damping for optimal vehicle control.
- Electronically power-assisted steering adjusts steering effort and feel based on your vehicle speed and your inputs.
- Active noise control utilizes your vehicle electronics to enhance the acoustic experience.
- Electronic stability control and traction control maintain your vehicle control in adverse conditions or high performance driving.
- Electronic throttle control enhances the powertrain response to your inputs.

Using Lincoln Drive Control

You can configure which of the Drive Control modes are active when your vehicle is in drive (D) or in sport (S). The configuration remains active until modified from the main menu on the information display.

These systems have a range of modes which you can choose from in order to customize your ideal driving experience:

- Comfort – Provides a more relaxed driving experience, maximizing comfort. Your steering effort decreases and the suspension movement is more fluid. Comfort mode is ideal when you desire enhanced traveling comfort.
- Normal – Delivers a balanced combination of comfortable, controlled ride and confident handling. This mode provides an engaging drive experience and a direct connection to the road without sacrificing any of the composure demanded from a luxury vehicle.
- Sport – Provides a sportier driving experience. The suspension stiffens, with an emphasis on handling and control. The engine responds more directly to your inputs and takes on a more powerful tone. Sport mode is ideal for use during more spirited driving.

You can change your vehicle's Drive Control settings from the menu on the display screen. See **Information Messages** (page 95).

Note: *Not all settings may be available.*

Note: *Lincoln Drive Control has diagnostic checks that continuously monitor the system to ensure proper operation. Certain types of system errors will gray out the mode selections within the information display, preventing you from changing states when the gear position is changed. Other types of errors produce a temporary message in the information display. See* ***Information Messages*** *(page 95). If either condition persists for multiple key cycles, have your vehicle checked by an authorized dealer.*

LOAD LIMIT

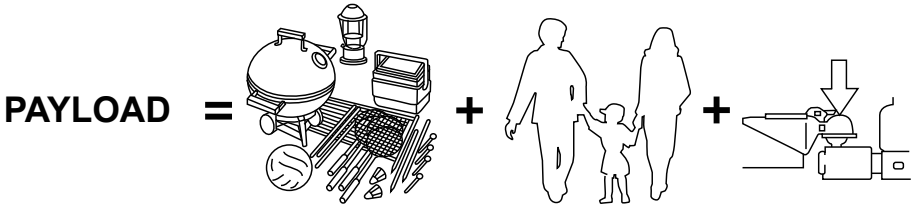
Vehicle Loading - with and without a Trailer

This section will guide you in the proper loading of your vehicle, trailer or both, 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 Tire Label or Safety Compliance Certification Label:

Base Curb Weight - is the weight of the vehicle including full fluids 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 authorized dealer plus any aftermarket equipment.



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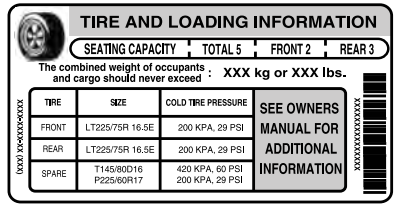
Payload - is the combined weight of cargo and passengers that the vehicle is carrying. The maximum payload for your vehicle can be found on the Tire Label on the B-Pillar or the edge of the driver door (vehicles exported outside the US and Canada may not have a Tire Label). Look for **"THE COMBINED WEIGHT 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 you install any aftermarket or authorized-dealer installed equipment on the vehicle, you must subtract the weight of the equipment from the payload listed on the Tire Label in order to determine the new payload.

WARNING

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:



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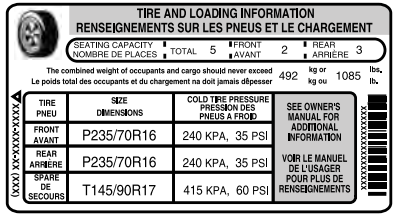

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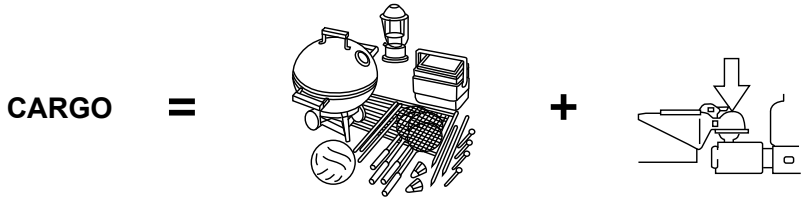

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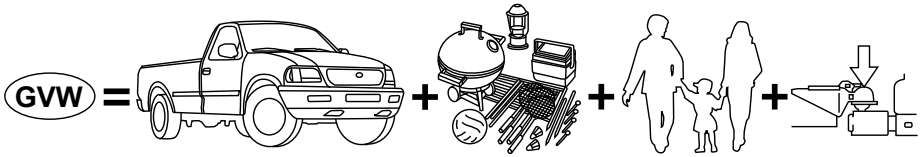
Cargo Weight - includes all weight added to the Base Curb Weight, including cargo and optional equipment. When towing, trailer tongue load or king pin weight is also part of cargo weight.

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

GAWR (Gross Axle Weight Rating) - is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the Safety Compliance Certification Label. The label shall be affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position. **The total load on each axle must never exceed its Gross Axle Weight Rating.**

Note: *For trailer towing information refer to the RV and Trailer Towing Guide available at an authorized dealer.*



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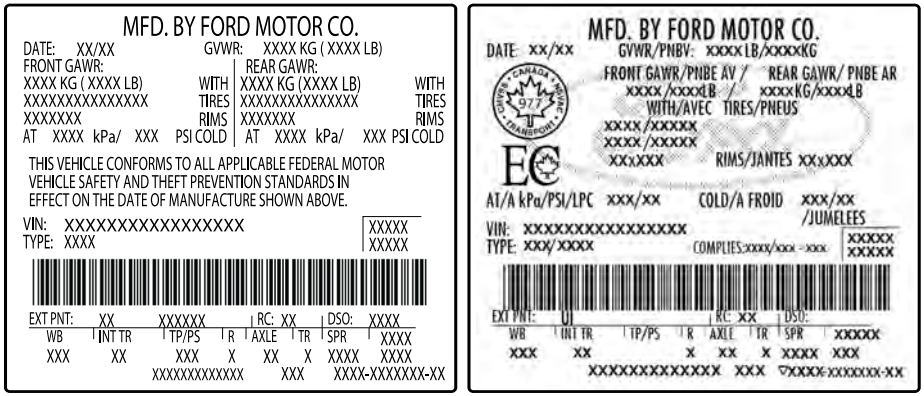
GVW (Gross Vehicle Weight) - is the Vehicle Curb Weight, plus cargo, plus passengers.

GVWR (Gross Vehicle Weight Rating) - is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). It is shown on the Safety Compliance Certification Label. The label shall be affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position. **The Gross Vehicle Weight must never exceed the Gross Vehicle Weight Rating.**

Example only:



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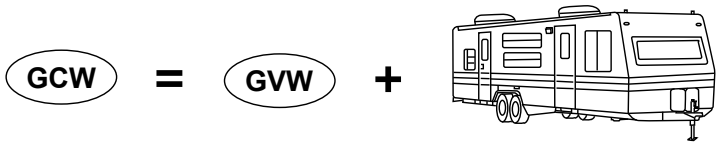
WARNING

Exceeding the Safety Compliance 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.



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GCW (Gross Combined Weight) - is the Gross Vehicle Weight plus the weight of the fully loaded trailer.

GCWR (Gross Combined Weight Rating) - is the maximum allowable weight of the vehicle and the loaded trailer, including all cargo and passengers, that the vehicle can handle without risking damage. (Important: The towing vehicle's braking system is rated for operation at Gross Vehicle Weight Rating, not at Gross Combined Weight Rating.) Separate functional brakes should be used for safe control of towed vehicles and for trailers where the Gross Combined Weight of the

towing vehicle plus the trailer exceed the Gross Vehicle Weight Rating of the towing vehicle. **The Gross Combined Weight must never exceed the Gross Combined Weight Rating.**

Maximum Loaded Trailer Weight - is the highest possible weight of a fully loaded trailer the vehicle can tow. It assumes a vehicle with mandatory options, driver and front passenger weight (150 pounds [68 kilograms] each), no cargo weight (internal or external) and a tongue load of 10–15% (conventional trailer) or king pin weight of 15–25% (fifth wheel trailer). Consult an authorized dealer (or the RV and Trailer Towing Guide available at an authorized dealer) for more detailed information.

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

Examples: For a 5000 pound (2268 kilogram) conventional trailer, multiply 5000 by 0.10 and 0.15 to obtain a proper tongue load range of 500 to 750 pounds (227 to 340 kilograms). For an 11500 pound (5216 kilogram) fifth wheel trailer, multiply by 0.15 and 0.25 to obtain a proper king pin load range of 1725 to 2875 pounds (782 to 1304 kilograms).

WARNINGS

Do not exceed the GVWR or the GAWR specified on the Safety Compliance Certification Label.

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

WARNINGS

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 lb." 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 lb.

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4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1,400 lb. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lb. (1400-750 (5 x 150) = 650 lb.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

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

*Suppose your vehicle has a 1400-pound (635-kilogram) cargo and luggage capacity. You decide to go golfing. Is there enough load capacity to carry you, four of your friends and all the golf bags? You and four friends average 220 pounds (99 kilograms) each and the golf bags weigh approximately 30 pounds (13.5 kilograms) each. The calculation would be: 1400 - (5 x 220) - (5 x 30) = 1400 - 1100 - 150 = 150 pounds. 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 kilograms - (5 x 99 kilograms) - (5 x 13.5 kilograms) = 635 - 495 - 67.5 = 72.5 kilograms.

*Suppose your vehicle has a 1400-pound (635-kilogram) 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 two years. Measuring the inside of the vehicle with the rear seat folded down, you have room for twelve 100-pound (45-kilogram) bags of cement. Do you have enough load capacity to transport the cement to your home? If you and your friend each weigh 220 pounds (99 kilograms), the calculation would be: 1400 - (2 x 220) - (12 x 100) = 1400 - 440 - 1200 = - 240 pounds. No, you do not have enough cargo capacity to carry that much weight. In metric units, the calculation would be: 635 kilograms - (2 x 99 kilograms) - (12 x 45 kilograms) = 635 - 198 - 540 = -103 kilograms. You will need to reduce the load weight by at least 240 pounds (104 kilograms). If you remove three 100-pound

(45-kilogram) cement bags, then the load calculation would be: 1400 - (2 x 220) - (9 x 100) = 1400 - 440 - 900 = 60 pounds. Now you have the load capacity to transport the cement and your friend home. In metric units, the calculation would be: 635 kilograms - (2 x 99 kilograms) - (9 x 45 kilograms) = 635 - 198 - 405 = 32 kilograms.

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 Safety Compliance Certification Label. The label shall be affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position.

TOWING A TRAILER

WARNINGS

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

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

Note: *There may be electrical items such as fuses or relays that can affect trailer towing operation. See* ***Fuses*** *(page 223).*

The load capacity of your vehicle is designated by weight not volume. You may not necessarily be able to use all available space when loading your vehicle or trailer.

Towing a trailer places extra load on the engine, transmission, axle, brakes, tires, and suspension. Inspect these components before, during and after towing.

Load Placement

To help minimize how trailer movement affects the vehicle when driving:

- Load the heaviest items closest to the trailer floor.
- Load the heaviest items in the center of the left and right side trailer tires.
- Load the heaviest items above the trailer axles or just slightly forward toward the trailer tongue. Do not allow the final trailer tongue weight to go above or below 10-15% of the loaded trailer weight.
- Select a ball mount with the correct rise or drop. When both the loaded vehicle and trailer are connected, the trailer frame should be level, or slightly angled down toward the vehicle, when viewed from the side.

When driving with a trailer or payload, a slight takeoff vibration or shudder may be present due to the increased payload weight. Additional information regarding proper trailer loading and setting your vehicle up for towing is located in the Load Carrying chapter. See **Load Limit** (page 192).

You can also find information in the **RV & Trailer Towing Guide** available at your authorized dealer, or online.

RV & Trailer Towing Guide Online	
Website	http://www.fleet.ford.com/towing-guides/

RECOMMENDED TOWING WEIGHTS

Note: *Do not exceed the trailer weight for your vehicle configuration listed in the chart below.*

Note: *Be sure to take into consideration trailer frontal area. Do not exceed 12 feet^2 (1.11 meters^2) trailer frontal area.*

Note: *For high altitude operation, reduce the gross combined weight by 2% per 1000 feet (300 meters) starting at the 1000 foot (300 meter) elevation point.*

Note: *Certain states require electric trailer brakes for trailers over a specified weight. Be sure to check state regulations for this specified weight. The maximum trailer weights listed may be limited to this specified weight, as the vehicle's electrical system may not include the wiring connector needed to use electric trailer brakes.*

Your vehicle may tow a Class I trailer provided the maximum trailer weight is less than or equal to the maximum trailer weight listed for your vehicle configuration on the following chart. If your vehicle is equipped with 3.7L engine, it cannot tow a trailer.

Powertrain	Maximum trailer weight
3.7L TiVCT front-wheel drive	No trailer towing permitted
3.7L TiVCT all-wheel drive	No trailer towing permitted
3.5L GTDI all-wheel drive	1000 lb (454 kg)

ESSENTIAL TOWING CHECKS

Follow these guidelines for safe towing:

- Do not tow a trailer until you drive your vehicle at least 1000 miles (1600 kilometers).
- Consult your local motor vehicle laws for towing a trailer.
- See the instructions included with towing accessories for the proper installation and adjustment specifications.
- Service your vehicle more frequently if you tow a trailer. See your scheduled maintenance information.
- If you use a rental trailer, follow the instructions the rental agency gives you.

You can find information on load specification terms found on the tire label and Safety Compliance label as well as instructions on calculating your vehicle's load in the Load Carrying chapter. See **Load Limit** (page 192).

Remember to account for the trailer tongue weight as part of your vehicle load when calculating the total vehicle weight.

Hitches

Do not use a hitch that either clamps onto the bumper or attaches to the axle.

Distribute the trailer load so 10-15% of the total trailer weight is on the tongue.

Safety Chains

Note: *Never attach safety chains to the bumper.*

Always connect the safety chains to the hook retainers of your vehicle hitch.

To connect the safety chains, cross them under the trailer tongue and allow enough slack for turning tight corners. Do not allow the chains to drag on the ground.

Trailer Brakes

WARNING

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

Electric brakes and manual, automatic or surge-type trailer brakes are safe if you install them properly and adjust them to the manufacturer's specifications. The trailer brakes must meet local and federal regulations.

The rating for the tow vehicle's braking system operation is at the gross vehicle weight rating, not the gross combined weight rating.

Trailer Lamps

WARNING

Never connect any trailer lamp wiring to the vehicle's tail lamp wiring; this may damage the electrical system resulting in fire. Contact your authorized dealer as soon as possible for assistance in proper trailer tow wiring installation. Additional electrical equipment may be required.

Trailer lamps are required on most towed vehicles. Make sure all running lights, brake lights, turn signals and hazard lights are working.

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Before Towing a Trailer

Practice turning, stopping and backing up to get the feel of your vehicle-trailer combination before starting on a trip. When turning, make wider turns so the trailer wheels clear curbs and other obstacles.

When Towing a Trailer

- Do not drive faster than 70 mph (113 km/h) during the first 500 miles (800 kilometers).
- Do not make full-throttle starts.
- Check your hitch, electrical connections and trailer wheel lug nuts thoroughly after you have traveled 50 miles (80 kilometers).
- When stopped in congested or heavy traffic during hot weather, place the gearshift in position **P** to aid engine and transmission cooling and to help A/C performance.
- Turn off the speed control with heavy loads or in hilly terrain. The speed control may turn off automatically when you are towing on long, steep grades.
- Shift to a lower gear when driving down a long or steep hill. Do not apply the brakes continuously, as they may overheat and become less effective.
- If your transmission is equipped with a Grade Assist or Tow/Haul feature, use this feature when towing. This provides engine braking and helps eliminate excessive transmission shifting for optimum fuel economy and transmission cooling.
- Allow more distance for stopping with a trailer attached. Anticipate stops and brake gradually.
- Avoid parking on a grade. However, if you must park on a grade:

1. Turn the steering wheel to point your vehicle tires away from traffic flow.
2. Set your vehicle parking brake.
3. Place the automatic transmission in position **P**.
4. Place wheel chocks in front and back of the trailer wheels. (Chocks not included with vehicle.)

Launching or Retrieving a Boat or Personal Watercraft (PWC)

Note: *Disconnect the wiring to the trailer **before** backing the trailer into the water.*

Note: *Reconnect the wiring to the trailer **after** removing the trailer from the water.*

When backing down a ramp during boat launching or retrieval:

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

Exceeding these limits may allow water to enter vehicle components:

- Causing internal damage to the components.
- Affecting driveability, emissions, and reliability.

Any time the rear axle submerges in water, replace the rear axle lubricant. Water may contaminate the rear axle lubricant, which is not a normal maintenance inspection item unless there is a possibility of a leak or other axle repair is required.

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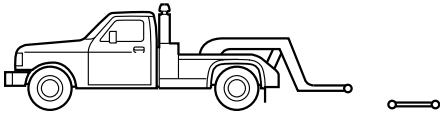
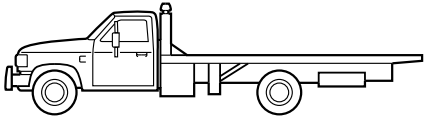
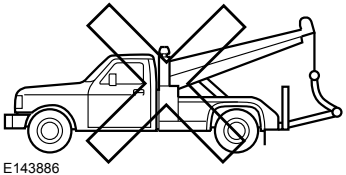
TRANSPORTING THE VEHICLE







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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.

We recommend the use of a wheel lift and dollies or flatbed equipment to tow your vehicle. Do not tow with a slingbelt. Ford Motor Company has not approved a slingbelt towing procedure. Vehicle damage may occur if towed incorrectly, or by any other means.

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.

It is acceptable to have your front-wheel drive vehicle towed from the front if using proper wheel lift equipment to raise the front wheels off the ground. When towing in this manner, the rear wheels can remain on the ground.

Front-wheel drive vehicles must have the front wheels placed on a tow dolly when towing your vehicle from the rear using wheel lift equipment. This prevents damage to the transmission.

Towing an all-wheel drive vehicle requires that all wheels be off the ground, such as using a wheel lift and dollies or flatbed equipment. This prevents damage to the transmission, all-wheel drive system and vehicle.

TOWING THE VEHICLE ON FOUR WHEELS

Emergency Towing

You can flat-tow (all wheels on the ground, regardless of the powertrain/transmission configuration) your disabled vehicle (without access to wheel dollies, car-hauling trailer, or flatbed transport vehicle) under the following conditions:

- Your vehicle is facing forward so you tow it in a forward direction.
- You place the transmission in neutral (N). If you cannot place the transmission in neutral (N), you may need to override it. See **Transmission** (page 140).
- Maximum speed is 35 mph (56 km/h).
- Maximum distance is 50 miles (80 kilometers).

Recreational Towing

Note: *Put your climate control system in recirculated air mode to prevent exhaust fumes from entering the vehicle. See* ***Climate Control*** *(page 105).*

Follow these guidelines if you have a need for recreational (RV) towing. An example of recreational towing would be towing your vehicle behind a motorhome or truck. These guidelines are to make sure you do not damage your vehicle after it is hooked-up to the recreational vehicle or tow dolly.

You can tow your front-wheel drive vehicle with all four wheels on the ground or with the front wheels off the ground by using a tow dolly. If you are using a tow dolly, follow the instructions specified by the equipment provider. If you are towing with all four wheels on the ground, see the following instructions.

You can tow your all-wheel drive vehicle with all four wheels on the ground or with all four wheels off the ground using a vehicle transport trailer. Do not tow your all-wheel drive vehicle with the front wheels off the ground (by using a tow dolly) and the rear wheels on the ground. This causes damage to your all-wheel drive system. If you are using a vehicle transport trailer, follow the instruction specified by the equipment provider. If you are towing with all four wheels on the ground, see the following instructions.

If you tow your vehicle with all four wheels on the ground:

- Tow only in the forward direction.
- Release the parking brake.
- Place the transmission in neutral (N).
- Do not exceed 65 mph (105 km/h).
- Start the engine and allow it to run for five minutes at the beginning of each day and every six hours thereafter. With the engine running and your foot on the brake, shift into drive (D) and then into reverse (R) before shifting back into neutral (N).

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BREAKING-IN

You need to break in new tires for approximately 300 miles (480 kilometers). During this time, your vehicle may exhibit some unusual driving characteristics.

Avoid driving too fast during the first 1000 miles (1600 kilometers). Vary your speed frequently and change up through the gears early. Do not labor the engine.

Do not tow during the first 1000 miles (1600 kilometers).

ECONOMICAL DRIVING

Fuel economy is affected by several things such as how you drive, the conditions you drive under and how you maintain your vehicle.

There are some things to keep in mind that may improve your fuel economy:

- Accelerate and slow down in a smooth, moderate fashion.
- Drive at steady speeds.
- Anticipate stops; slowing down may eliminate the need to stop.
- Combine errands and minimize stop-and-go driving (When running errands, go to the furthest destination first and then work your way back home).
- Close the windows for high-speed driving.
- Drive at reasonable speeds.
- Keep the tires properly inflated and use only the recommended size.
- Use the recommended engine oil.
- Perform all regularly scheduled maintenance.

There are also some things you may want to avoid doing because they reduce your fuel economy:

- Avoid sudden or hard accelerations.
- Avoid revving the engine before turning off the car.
- Avoid long idle periods.
- Do not warm up your vehicle on cold mornings.
- Reduce the use of air conditioning and heat.
- Avoid using speed control in hilly terrain.
- Do not rest your foot on the brake pedal while driving.
- Avoid carrying unnecessary weight.
- Avoid adding particular accessories to your vehicle (e.g. bug deflectors, rollbars/light bars, running boards, ski racks).
- Avoid driving with the wheels out of alignment.

DRIVING THROUGH WATER

WARNING

Do not drive through flowing or deep water as you may lose control of your vehicle.

Note: *Driving through standing water can cause vehicle damage.*

Note: *Engine damage can occur if water enters the air filter.*

Before driving through standing water, check the depth. Never drive through water that is higher than the bottom of the front rocker area of your vehicle.

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When driving through standing water, drive very slowly and do not stop your vehicle. Your brake performance and traction may be limited. After driving through water and as soon as it is safe to do so:

- Lightly press the brake pedal to dry the brakes and to check that they work.
- Check that the horn works.
- Check that the exterior lights work.
- Turn the steering wheel to check that the steering power assist works.

FLOOR MATS

WARNINGS

Always use floor mats that are designed to fit the foot well of your vehicle. Only use floor mats that leave the pedal area unobstructed. Only use floor mats that are firmly secured to retention posts so that they cannot slip out of position and interfere with the pedals or impair safe operation of your vehicle in other ways.

Pedals that cannot move freely can cause loss of vehicle control and increase the risk of serious personal injury.

Always make sure that the floor mats are properly attached to the retention posts in the carpet that are supplied with your vehicle. Floor mats must be properly secured to both retention posts to make sure mats do not shift out of position.

Never place floor mats or any other covering in the vehicle foot well that cannot be properly secured to prevent them from moving and interfering with the pedals or the ability to control the vehicle.

WARNINGS

Never place floor mats or any other covering on top of already installed floor mats. Floor mats should always rest on top of vehicle carpeting surface and not another floor mat or other covering. Additional floor mats or any other covering will reduce the pedal clearance and potentially interfere with pedal operation.

Check attachment of floor mats on a regular basis. Always properly reinstall and secure floor mats that have been removed for cleaning or replacement.

Always make sure that objects cannot fall into the driver foot well while the vehicle is moving. Objects that are loose can become trapped under the pedals causing a loss of vehicle control.

Failure to properly follow floor mat installation or attachment instructions can potentially cause interference with pedal operation causing a loss of vehicle control.

E142666

To install floor mats, position the floor mat so that the eyelet is over the retention post and press down to lock in.

To remove the floor mat, reverse the installation procedure.

ROADSIDE ASSISTANCE

Vehicles Sold in the United States: Getting Roadside Assistance

If you ever need help on the road, the Lincoln Motor Company is there for you with nationwide, 24-hours-a-day, seven-days-a-week assistance.

The service is available:

- Throughout the life of the vehicle for original owners.
- For six years or 70,000 mi (112,654.08 km) (whichever comes first) within the extended powertrain warranty coverage period for subsequent owners.
- For the coverage period listed on the Roadside Assistance Card included in your Owner's Manual portfolio.

This complimentary Roadside Assistance program is separate from the New Vehicle Limited Warranty, and includes:

- A flat tire change with a good spare (except vehicles supplied with a tire inflation kit).
- Battery jump start.
- Lock-out assistance (key replacement cost is the client's responsibility).
- Fuel delivery — independent service contractors, if not prohibited by state, local or municipal law shall deliver up to 2.0 gal (7.5 L) of gasoline or 5.0 gal (18.9 L) of diesel fuel to a disabled vehicle. Roadside Assistance limits fuel delivery service to two no-charge occurrences within a 12-month period.
- Winch out — available within 100 ft (30.48 m) of a paved or county maintained road, no recoveries.
- Towing — independent service contractors, if not prohibited by state, local or municipal law shall tow Lincoln eligible vehicles to the client's selling or preferred dealer within 100 mi (161 km) of the disablement location or to the nearest Lincoln dealer. If a client requests a tow to a selling or preferred dealer that is more than 100 mi (161 km) from the disablement location, the client shall be responsible for any mileage costs in excess of 100 mi (161 km).

Roadside Assistance includes up to $200 coverage for a towed trailer if the disabled eligible vehicle requires service at the nearest authorized dealer. If the towing vehicle is operational but the trailer is not, then the trailer does not qualify for any roadside services.

Vehicles Sold in the United States: Using Roadside Assistance

United States Lincoln vehicle clients who require Roadside Assistance, call 1-800-521-4140.

If you need to arrange roadside assistance for yourself, Lincoln Motor Company will reimburse a reasonable amount for towing to the nearest Lincoln dealership within 100 mi (161 km). To obtain reimbursement information, United States Lincoln vehicle clients, call 1-800-521-4140. Lincoln Motor Company will ask you to submit your original receipts.

Vehicles Sold in Canada: Getting Roadside Assistance

To fully assist you should you have a vehicle concern, Lincoln Motor Company offers a complimentary roadside assistance program. This program is eligible within Canada or the continental United States.

This program is separate from the New Vehicle Limited Warranty, but the coverage is concurrent with the powertrain coverage period of your vehicle.

Canadian customers who require roadside assistance, call 1-800-387-5333.

Vehicles Sold in Canada: Using Roadside Assistance

Complete the roadside assistance identification card and place it in your wallet for quick reference.

In Canada, this card is found in the Warranty Guide in the glove compartment of your vehicle.

Vehicles Sold in Canada: Roadside Assistance Program Coverage

The service is available 24 hours a day, seven days a week.

Canadian roadside coverage and benefits may differ from the U.S. coverage.

For complete program coverage details review your warranty guide, contact your dealer, call us in Canada at 1-800-387-9333, or visit our website at www.lincolncanada.com.

HAZARD WARNING FLASHERS

Note: *If used when the vehicle is not running, the battery will lose charge. There may be insufficient power to restart your vehicle.*

The hazard warning button is located on the instrument panel. Use it when your vehicle is creating a safety hazard for other motorists.

- Press the button to turn on the hazard warning function, and the front and rear direction indicators will flash.
- Press the button again to turn them off.

FUEL SHUTOFF

WARNING

Failure to inspect and, if necessary, repair fuel leaks after a collision may increase the risk of fire and serious injury. Ford Motor Company recommends that the fuel system be inspected by an authorized dealer after any collision.

In the event of a moderate to severe collision, this vehicle includes a fuel pump shutoff feature that stops the flow of fuel to the engine. Not every impact will cause a shutoff.

Should your vehicle shut off after a collision, you may restart your vehicle. For vehicles equipped with a key system:

1. Switch off the ignition.
2. Switch on the ignition.
3. Repeat Steps 1 and 2 to re-enable the fuel pump.

For vehicles equipped with a push button start system:

1. Press the **START/STOP** button to switch off the ignition.
2. Press the brake pedal and press the **START/STOP** button to switch on the ignition.
3. Remove your foot from the brake pedal and press the **START/STOP** button to switch off the ignition.
4. You can either attempt to start the engine by pressing the brake pedal and the **START/STOP** button, or switch on the ignition only by pressing the **START/STOP** button without pressing the brake pedal. Both ways re-enable the fuel system.

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Note: *When you try to restart your vehicle after a fuel shutoff, the vehicle makes sure that various systems are safe to restart. Once your vehicle determines that the systems are safe, then the vehicle will allow you to restart.*

Note: *In the event that your vehicle does not restart after your third attempt, contact an authorized dealer.*

JUMP STARTING THE VEHICLE

WARNINGS

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 correct ventilation.

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.

WARNINGS

Use only adequately sized cables with insulated clamps.

Preparing Your Vehicle

Do not attempt to push-start your automatic transmission vehicle.

Note: *Attempting to push-start a vehicle with an automatic transmission may cause transmission damage.*

Note: *Use only a 12-volt supply to start your vehicle.*

Note: *Do not disconnect the battery of the disabled vehicle as this could damage the vehicle electrical system.*

Park the booster vehicle close to the hood of the disabled vehicle, making sure the two vehicles do not touch.

Connecting the Jumper Cables

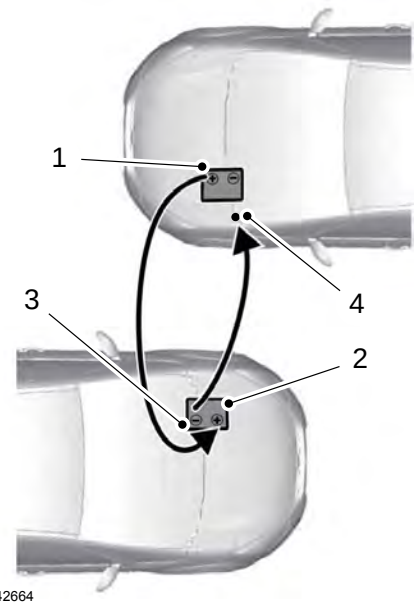
WARNINGS

Do not attach the cables to fuel lines, engine rocker covers, the intake manifold or electrical components as grounding points. Stay clear of moving parts. To avoid reverse polarity connections, make sure that you correctly identify the positive (+) and negative (-) terminals on both the disabled and booster vehicles before connecting the cables.

Do not attach the end of the positive cable to the studs or L-shaped eyelet located above the positive (+) terminal of your vehicle's battery. High current may flow through and cause damage to the fuses.

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.

Note: *In the illustration, the bottom vehicle represents the booster vehicle.*



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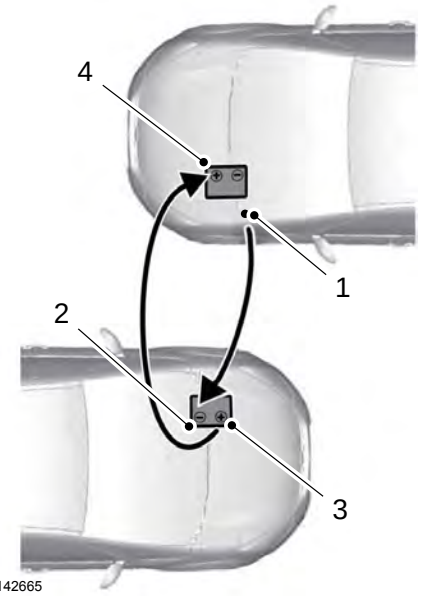
1. Connect the positive (+) jumper cable to the positive (+) terminal of the discharged battery.
2. Connect the other end of the positive (+) cable to the positive (+) terminal of the booster vehicle battery.
3. Connect the negative (-) cable to the negative (-) terminal of the booster vehicle battery.
4. Make the final connection of the negative (-) cable to an exposed metal part of the stalled vehicle's engine, away from the battery and the fuel injection system, or connect the negative (-) cable to a ground connection point if available.

Jump Starting

1. Start the engine of the booster vehicle and rev the engine moderately, or press the accelerator gently to keep your engine speed between 2000 and 3000 RPM, as shown in your tachometer.
2. Start the engine of the disabled vehicle.
3. Once the disabled vehicle has been started, run both vehicle 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.



E142665

1. Remove the negative (-) jumper cable from the disabled vehicle.
2. Remove the jumper cable on the negative (-) terminal of the booster vehicle battery.

3. Remove the jumper cable from the positive (+) terminal of the booster vehicle battery.
4. Remove the jumper cable from the positive (+) terminal of the disabled vehicle battery.
5. Allow the engine to idle for at least one minute.

POST-CRASH ALERT SYSTEM

The system flashes the direction indicators and sounds the horn (intermittently) in the event of a serious impact that deploys an airbag (front, side, side curtain or Safety Canopy) or the safety belt pretensioners.

The horn and indicators will turn off when:

- You press the hazard control button.
- You press the panic button on the remote entry transmitter (if equipped).
- Your vehicle runs out of power.

GETTING THE SERVICES YOU NEED

Warranty repairs to your vehicle must be performed by an authorized dealer. While any authorized dealer handling your vehicle line provides warranty service, we recommend you return to your selling authorized dealer who wants to ensure your continued satisfaction.

Please note that certain warranty repairs require special training and equipment, so not all authorized 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 authorized dealer.

A reasonable time must be allowed to perform a repair after taking your vehicle to the authorized dealer. Repairs are made using Lincoln or Motorcraft parts, or remanufactured or other parts that are authorized by Lincoln.

Away From Home

If you are away from home when your vehicle needs service, contact the Lincoln Client Relationship Center or use the online resources listed below to find the nearest authorized dealer.

In the United States:

Mailing address

Lincoln Motor Company
Client Relationship Center
P.O. Box 6248
Dearborn, MI 48126

Telephone

1-800-521-4140
TDD for the hearing impaired:
1-800-232-5952

Web Address
www.LincolnOwner.com

These are some of the items that can be found online:

- United States dealer locator by Dealer Name, City, State or ZIP Code.
- Owner Manuals.
- Maintenance Schedules.
- Recalls.
- Lincoln Extended Service Plans.
- Lincoln Original Accessories.
- Service specials and promotions.

In Canada:

Mailing address

Lincoln Client Relationship Centre
Lincoln Motor Company of Canada, Limited
P.O. Box 2000
Oakville, Ontario L6K 1C8

Telephone

1-800-387-9333

Web Address
www.LincolnCanada.com

Online Resources

Twitter English

@LincolnMotorCA

Twitter French

@LincolnQC

Instagram

@LincolnMotorCA

Facebook

/LincolnMotorCA

Additional Assistance

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 or servicing authorized dealer.
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 Lincoln Motor Company policies, please contact the Lincoln Client Relationship Center.

In order to help us serve you better, please have the following information available when contacting a Client Relationship Center:

- Vehicle Identification Number.
- Your telephone number (home and business).
- The name of the authorized dealer and city where located.
- The vehicle's current odometer reading.

In some states, you must directly notify Lincoln in writing before pursuing remedies under your state's warranty laws. Lincoln is also allowed a final repair attempt in some states.

In the United States, a warranty dispute must be submitted to the BBB AUTO LINE 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 18000 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

You are required to submit your warranty dispute to BBB AUTO LINE before asserting in court any rights or remedies conferred by California Civil Code Section 1793.22(b). You are also required to use BBB AUTO LINE before exercising rights or seeking remedies created by the Federal Magnuson-Moss Warranty Act, 15 U.S.C. sec. 2301 et seq. If you choose to seek redress by pursuing rights and remedies not created by California Civil Code Section 1793.22(b) or the Magnuson-Moss Warranty Act, resort to BBB AUTO LINE is not required by those statutes.

THE BETTER BUSINESS BUREAU (BBB) AUTO LINE PROGRAM (U.S. ONLY)

Your satisfaction is important to Ford Motor Company and to your dealer. If a warranty concern has not been resolved using the three-step procedure outlined earlier in this chapter in the Getting the Services you need section, you may be eligible to participate in the BBB AUTO LINE program.

The BBB AUTO LINE program consists of two parts – mediation and arbitration. During mediation, a representative of the BBB will contact both you and Ford Motor Company to explore options for settlement of the claim. If an agreement is not reached during mediation or you do not want to participate in mediation, and if your claim is eligible, you may participate in the arbitration process. An arbitration hearing will be scheduled so that you can present your case in an informal setting before an impartial person. The arbitrator will consider the testimony provided and make a decision after the hearing.

Disputes submitted to the BBB AUTO LINE program are usually decided within forty days after you file your claim with the BBB. You are not bound by the decision, and may reject the decision and proceed to court where all findings of the BBB Auto Line dispute, and decision, are admissible in the court action. Should you choose to accept the BBB AUTO LINE decision, Ford is then bound by the decision, and must comply with the decision within 30 days of receipt of your acceptance letter.

BBB AUTO LINE Application: Using the information provided below, please call or write to request a program application. You will be asked for your name and address, general information about your new vehicle, information about your warranty concerns, and any steps you have already taken to try to resolve them. A Customer Claim Form will be mailed that will need to be completed, signed and returned to the BBB along with proof of ownership. Upon receipt, the BBB will review the claim for eligibility under the Program Summary Guidelines.

You can get more information by calling BBB AUTO LINE at 1-800-955-5100, or writing to:

BBB AUTO LINE
3033 Wilson Boulevard, Suite 600
Arlington, Virginia 22201

BBB AUTO LINE applications can also be requested by calling the Ford Motor Company Customer Relationship Center at 1-800-392-3673.

Note: *Ford Motor Company reserves the right to change eligibility limitations, modify procedures, or to discontinue this process at any time without notice and without obligation.*

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UTILIZING THE MEDIATION/ARBITRATION PROGRAM (CANADA ONLY)

For vehicles delivered to authorized Canadian dealers. In those cases where you continue to feel that the efforts by Ford of Canada and the authorized 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 on both you and Ford of Canada.

CAMVAP services are available in all Canadian territories and provinces. For more information, without charge or obligation, call your CAMVAP Provincial Administrator directly at 1-800-207-0685 or visit www.camvap.ca.

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 our Customer Relationship Center.

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 or 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 United States.

If your vehicle must be serviced while you are traveling or living in Asia-Pacific Region, Sub-Saharan Africa, U.S. Virgin Islands, Central America, the Caribbean, and Israel, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact:

FORD MOTOR COMPANY
Customer Relationship Center
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101
U.S.A.
Telephone: (313) 594-4857
Fax: (313) 390-0804
Email: expcac@ford.com

For customers in Guam, the Commonwealth of the Northern Mariana Islands (CNMI), America Samoa, and the U.S. Virgin Islands, please feel free to call our Toll-Free Number: (800) 841-FORD (3673).

If your vehicle must be serviced while you are traveling or living in Puerto Rico, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact:

FORD MOTOR COMPANY
Customer Relationship Center
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101
U.S.A.
Telephone: (800) 841-FORD (3673)
FAX: (313) 390-0804
Email: prcac@ford.com
www.ford.com.pr

If your vehicle must be serviced while you are traveling or living in the Middle East, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact:

FORD MOTOR COMPANY
Customer Relationship Center
1555 Fairlane Drive
Fairlane Business Park #3
Allen Park, Michigan 48101
U.S.A.

Ford: 80004443673
Lincoln: 80004441067
If calling from the UAE: 80004441066
If calling from the Kingdom of Saudi Arabia: 8008443673
If calling from Kuwait: 22280384

FAX: +971 4 3327266
Email: menacac@ford.com
www.me.ford.com

If you buy your vehicle in North America and then relocate to any of the above locations, register your vehicle identification number (VIN) and new address with Ford Motor Company Export Operations & Global Growth Initiatives by emailing **expcac@ford.com**.

If you are in another foreign country, contact the nearest authorized dealer. In the event your inquiry is unresolved, communicate your concern with the dealership's Sales Manager, Service Manager or Customer Relations Manager. If you require additional assistance or clarification, please contact the respective Customer Relationship Center as previously listed.

Customers in the U.S. should call 1-800-392-3673.

ORDERING ADDITIONAL OWNER'S LITERATURE

To order the publications in this portfolio, contact Helm, Incorporated at:

HELM, INCORPORATED
47911 Halyard Drive
Plymouth, Michigan 48170
Attention: Customer Service

Or to order a free publication catalog, call toll free: 1-800-782-4356

Monday-Friday 8:00 a.m. - 6:00 p.m. EST

Helm, Incorporated can also be reached by their website:

www.helminc.com

(Items in this catalog may be purchased by credit card, check or money order.)

Obtaining a French Owner's Manual

French Owner's Manual can be obtained from your authorized dealer or by contacting Helm, Incorporated using the contact information listed previously in this section.

REPORTING SAFETY DEFECTS (U.S. ONLY)

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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 call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov; or write to:

Administrator

1200 New Jersey Avenue, Southeast

Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

REPORTING SAFETY DEFECTS (CANADA 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 Transport Canada and Ford of Canada.

Transport Canada Contact Information	
Website	www.tc.gc.ca/eng/motorvehiclesafety/safevehicles-defectinvestigations-index-76.htm (English)
Website	www.tc.gc.ca/fra/securiteautomobile/VehiculesSecuritaires-Enquetes-index-76.htm (French)
Phone	1–800–333–0510

Ford of Canada Contact Information	
Website	www.ford.ca
Phone	1–800–565-3673

FUSE SPECIFICATION CHART

Power Distribution Box

WARNINGS

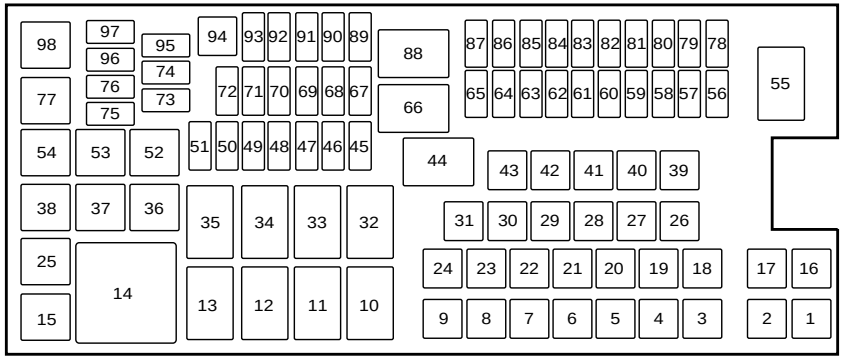
Always disconnect the battery before servicing high-current fuses.

WARNINGS

To reduce risk of electrical shock, always replace the cover to the power distribution box before reconnecting the battery or refilling fluid reservoirs.

The power distribution box is in the engine compartment. It has high-current fuses that protect the vehicle's main electrical systems from overloads.

If you disconnect and reconnect the battery, you will need to reset some features. See **Changing the 12V Battery** (page 255).



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Fuse or relay number	Fuse amp rating	Protected components
1	-	Not used.
2	-	Not used.
3	-	Not used.
4	30A[2]	Wiper motor relay.
5	50A[2]	Anti-lock brake system pump.
6	-	Not used.
7	-	Not used.
8	20A [2]	Moonroof. Power sunshade.
9	20A[2]	Second row power point.
10	-	Not used.
11	-	Heated rear window relay.
12	-	Not used.
13	-	Starter motor relay.
14	-	Left-hand cooling fan number 2 relay.
15	-	Fuel pump relay.

Fuse or relay number	Fuse amp rating	Protected components
16	-	Not used.
17	-	Not used.
18	40A[2]	Front blower motor relay.
19	30A[2]	Starter relay.
20	20A[2]	Storage bin power point.
21	20A [2]	Rear heated seat module.
22	-	Not used.
23	30A[2]	Driver power seat.
		Memory module.
24	-	Not used.
25	-	Not used.
26	40A[2]	Heated rear window relay.
27	20A[2]	Cigar lighter.
28	30A[2]	Climate controlled seats.
29	40A[2]	Electric fan relay 1.

Fuse or relay number	Fuse amp rating	Protected components
30	40A[2]	Electric fan relay 2.
31	25A[2]	Electric fan relay 3.
32	Relay	Massage control seat relay.
33	-	Right-hand cooling fan relay.
34	-	Blower motor relay.
35	-	Left-hand cooling fan Number 1 relay.
36	-	Not used.
37	-	Not used.
38	-	Not used.
39	-	Not used.
40	30A[2]	Left front smart window motor.
41	30A[2]	Left rear smart window motor.
42	30A[2]	Passenger power seat.
43	20A[2]	Anti-lock brake system valves.
44	-	Not used.
45	5A[1]	Rain sensor.

Fuse or relay number	Fuse amp rating	Protected components
46	-	Not used.
47	-	Not used.
48	-	Not used.
49	-	Not used.
50	15A[1]	Heated Mirrors.
51	-	Not used.
52	-	Not used.
53	-	Not used.
54	-	Not used.
55	-	Wiper relay.
56	-	Not used.
57	20A[1]	Left-hand high intensity discharge headlamp.
58	10A[1]	Alternator A-line.
59	10A[1]	Brake on/off switch.
60	-	Not used.
61	-	Not used.

Fuse or relay number	Fuse amp rating	Protected components
62	10A[3]	A/C clutch.
63	-	Not used.
64	15A[1]	Massage control seats.
65	30A[1]	Fuel pump relay. Fuel injectors.
66	-	Powertrain control module relay.
67	20A[1]	Oxygen sensor heater.
		Mass airflow sensor.
		Variable camshaft timing solenoid valve.
		Canister vent solenoid.
		Canister purge solenoid.
68	20A[1]	Ignition coils.
69	20A[1]	Vehicle power 1 (powertrain control module).
70	15A[1]	A/C clutch.
		Fan control relay coils 1-3.
		Variable air conditioning compressor.
		Auxiliary transmission warmup.

Fuse or relay number	Fuse amp rating	Protected components
		Turbo charge waste-gate control.
		Electronic compressor bypass valve.
		All-wheel drive module.
		Positive crankcase ventilation heater.
71	-	Not used.
72	-	Not used.
73	-	Not used.
74	-	Not used.
75	-	Not used.
76	-	Not used.
77	-	Not used.
78	20A[1]	Right high-intensity discharge headlamp.
79	-	Not used.
80	-	Not used.
81	-	Not used.
82	-	Not used.
83	-	Not used.

Fuse or relay number	Fuse amp rating	Protected components
84	-	Not used.
85	-	Not used.
86	7.5A[1]	Powertrain control module.
		Keep alive power and relay.
		Canister vent solenoid.
87	5A[1]	Run/start relay.
88	-	Run/start relay.
89	5A[1]	Front blower relay coil.
		Electrical power assist steering module.
90	10A[1]	Powertrain control module run/start.
91	10A[1]	Adaptive cruise control module.
92	10A[1]	Anti-lock brake system module.
		Adaptive headlamp module.
93	5A[1]	Rear window defroster relay.
94	30A[2]	Passenger compartment fuse panel run/start.
95	-	Not used.

Fuse or relay number	Fuse amp rating	Protected components
96	-	Not used.
97	-	Not used.
98	-	A/C Clutch relay.

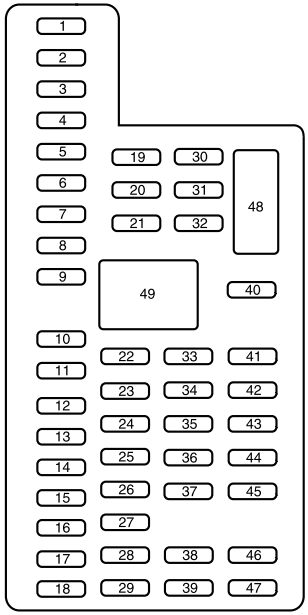
[1] Mini Fuses

[2] Cartridge Fuses

[3] Micro Fuses

Passenger Compartment Fuse Panel

The fuse panel is under the instrument panel to the left of the steering wheel. You may need to remove a trim panel to access it.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E163102

Fuse or relay number	Fuse amp rating	Protected components
1	30A	Left front and right rear smart window motors.
2	15A	Driver seat switch.
3	30A	Right front smart window motor.
4	10A	Demand lamps battery saver relay.
5	20A	Audio amplifier Active noise control module.
6	5A	Not used (spare).
7	7.5A	Driver seat module logic. Left front door zone module. Keypad.
8	10A	Not used (spare).
9	10A	SYNC module. Electronic finish panel. Radio frequency transceiver module.
10	10A	Run accessory relay. Wiper relay. Rain-sense subfuse.
11	10A	Intelligent access module logic. Heads-up display.
12	15A	Puddle lamp.

Fuse or relay number	Fuse amp rating	Protected components
		Backlighting LED. Interior lighting.
13	15A	Right-hand direction indicators.
14	15A	Left-hand direction indicators.
15	15A	Stop lamp. Backup lamp.
16	10A	Right front low beam.
17	10A	Left front low beam.
18	10A	Start button. Keypad illumination. Brake-shift interlock. Powertrain control module wake-up. Immobilizer transceiver module.
19	20A	Audio amplifiers.
20	20A	All lock motor relay and coil. Driver lock motor relay and coil.
21	10A	Not used (spare).
22	20A	Horn relay.
23	15A	Steering wheel control module logic Instrument cluster.
24	15A	Steering wheel control module.

Fuse or relay number	Fuse amp rating	Protected components
25	15A	Decklid release.
26	5A	Push button ignition switch.
27	20A	Intelligent access module power.
28	15A	Not used (spare).
29	20A	Radio. Global positioning system module
30	15A	Front park lamps.
31	5A	Not used (spare).
32	15A	Smart window motors. Master window and mirror switch. Rear window power sunshade module. Lock switch illumination.
33	10A	Suspension module.
34	10A	Reverse park aid module. Automatic high beam and lane departure module. Rear heated seat module. Blind spot monitor module. Rear video camera.
35	5A	Motorized humidity sensor. Heads-up display.
36	10A	Heated steering wheel.

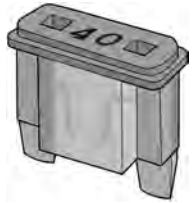
Fuse or relay number	Fuse amp rating	Protected components
37	10A	Not used (spare).
38	10A	Moonroof module and switch.
39	15A	High beams.
40	10A	Rear park lamps.
41	7.5A	Occupant classification sensor. Restraint control module.
42	5A	Not used (spare).
43	10A	Not used (spare).
44	10A	Not used (spare).
45	5A	Not used (spare).
46	10A	Climate control module.
47	15A	Fog lamp relay.
48	30A Circuit breaker	Front passenger power window. Rear power windows.

CHANGING A FUSE

Fuses

WARNING

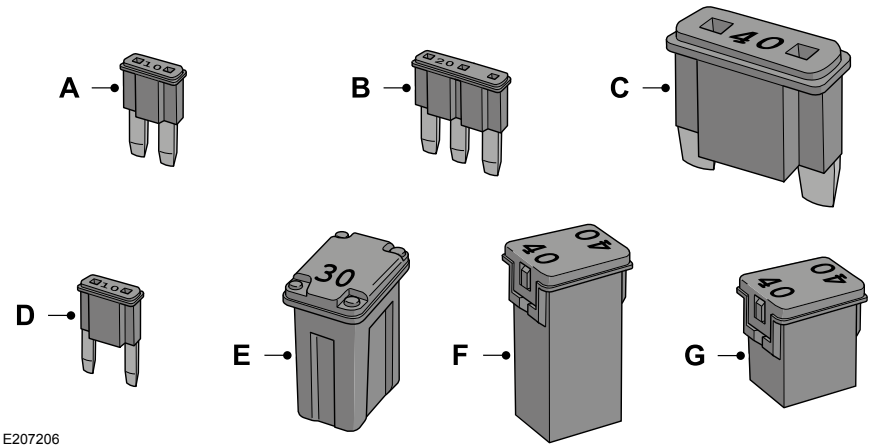
Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.



E217331

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.

Fuse Types



Callout	Fuse Type
A	Micro 2
B	Micro 3
C	Maxi
D	Mini

Callout	Fuse Type
E	M Case
F	J Case
G	J Case Low Profile

GENERAL INFORMATION

Have your vehicle serviced regularly to help maintain its roadworthiness and resale value. There is a large network of authorized dealers that are there to help you with their professional servicing expertise. We believe that their specially trained technicians are best qualified to service your vehicle properly and expertly. They are supported by a wide range of highly specialized tools developed specifically for servicing your vehicle.

If your vehicle requires professional service, an authorized dealer can provide the necessary parts and service. Check your warranty information 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

- 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 material (such as cigarettes) away from the battery and all fuel related parts.

Working with the Engine Off

1. Set the parking brake and shift to park (P).
2. Switch off the engine.
3. Block the wheels.

Working with the Engine On

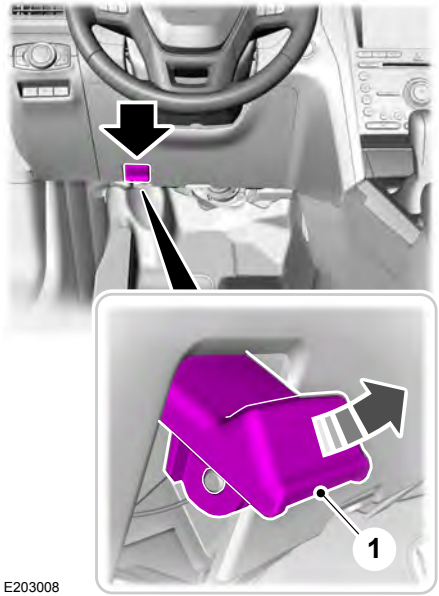
WARNING

To reduce the risk of vehicle damage and/or personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.

1. Set the parking brake and shift to park (P).
2. Block the wheels.

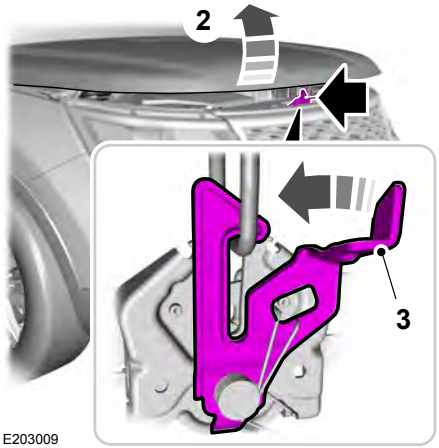
OPENING AND CLOSING THE HOOD

Opening the Hood



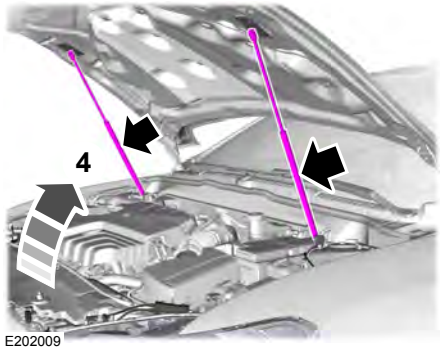
E203008

1. Inside the vehicle, pull the hood release handle located under the left-hand side of the instrument panel.
2. Slightly lift the hood.



E203009

3. Release the hood latch by pushing the secondary release lever to your left-hand side.



E202009

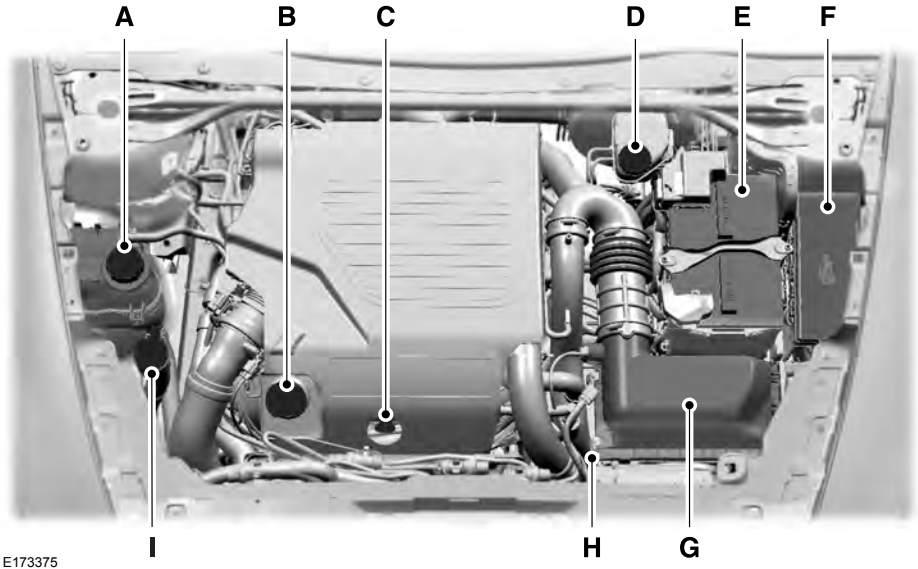
4. Open the hood. The hood struts automatically support the hood.

Closing the Hood

1. Lower the hood and allow it to drop under its own weight for the last 8–12 in (20–30 cm).

Note: *Make sure that the hood is correctly closed.*

UNDER HOOD OVERVIEW - 3.5L ECOBOOST™



A. Engine coolant reservoir. See **Engine Coolant Check** (page 247).
B. Engine oil filler cap. See **Engine Oil Check** (page 245).

C. Engine oil dipstick. See **Engine Oil Dipstick** (page 245).
D. Brake fluid reservoir. See **Brake Fluid Check** (page 254).
E. Battery. See **Changing the 12V Battery** (page 255).
F. Power distribution box. See **Fuses** (page 223).
G. Air filter assembly. See **Changing the Engine Air Filter** (page 262).
H. Automatic transmission dipstick (under air filter assembly). See **Automatic Transmission Fluid Check** (page 250).
I. Windshield washer fluid reservoir. See **Washer Fluid Check** (page 254).

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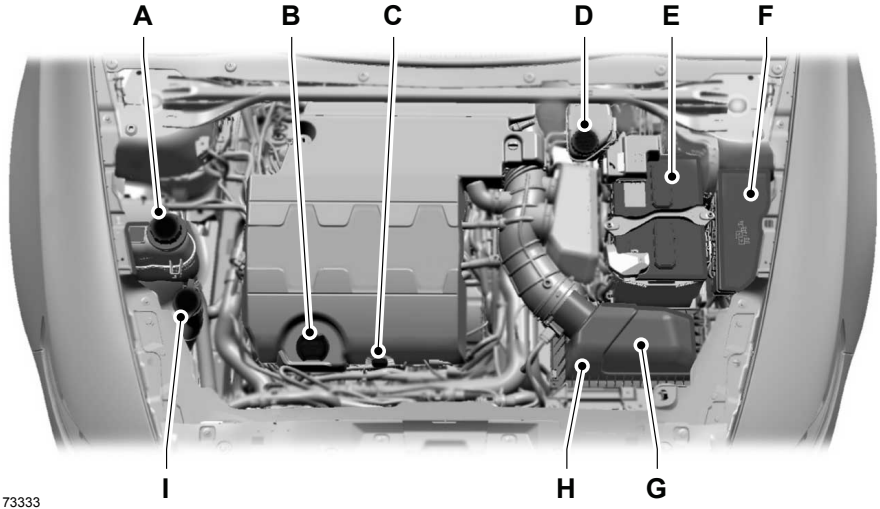
UNDER HOOD OVERVIEW - 3.7L



A. Engine coolant reservoir. See **Engine Coolant Check** (page 247).
B. Engine oil filler cap. See **Engine Oil Check** (page 245).
C. Engine oil dipstick. See **Engine Oil Dipstick** (page 245).
D. Brake fluid reservoir. See **Brake Fluid Check** (page 254).

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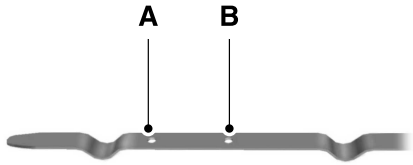
E. Battery. See **Changing the 12V Battery** (page 255).
F. Power distribution box. See **Fuses** (page 223).
G. Air filter assembly. See **Changing the Engine Air Filter** (page 262).
H. Automatic transmission dipstick (under air filter assembly). See **Automatic Transmission Fluid Check** (page 250).
I. Windshield washer fluid reservoir. See **Washer Fluid Check** (page 254).

Engine Shield

E173374

Some vehicles may be equipped with an aero-shield under the engine. This shield needs to be removed for service, including oil and filter changes. The shield has four quick-release fasteners to secure it in place.

ENGINE OIL DIPSTICK



E146429

A MIN
B MAX

ENGINE OIL CHECK

Note: *Check the level before starting the engine.*

Note: *Make sure that the oil level is between the minimum and the maximum marks.*

1. Make sure that your vehicle is on level ground.
2. Turn the engine off and wait 10 minutes for the oil to drain into the oil pan.
3. Remove the dipstick and wipe it with a clean, lint-free cloth. Replace the dipstick and remove it again to check the oil level.

If the oil level is at the minimum mark, add oil immediately.

Adding Engine Oil

Note: *Do not remove the filler cap when the engine is running.*

Note: *Do not add oil further than the MAX mark. Oil levels above the MAX mark may cause engine damage.*

E142732

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 Lubricants Specification Advisory Committee (ILSAC).

1. Remove the filler cap.
2. If the engine oil level is not within the normal range, add engine oil that meets Ford specifications. See **Capacities and Specifications** (page 296).
3. Remove the engine oil filler cap and use a funnel to pour the engine oil into the opening.
4. Wipe off any spilled oil.
5. Replace the filler cap. Turn it until you feel a strong resistance.

OIL CHANGE INDICATOR RESET

Use the information display controls on the steering wheel to reset the oil change indicator.

From the main menu scroll to:

Message	Action and description
Settings	Press the right arrow button, then from this menu scroll to the following message.
Vehicle	Press the right arrow button, then from this menu scroll to the following message.
Oil Life	Press the right arrow button, then from this menu scroll to the following message.

Message	Action and description
Hold OK to Reset	Press and hold the **OK** button until the instrument cluster displays the following message. Reset Successful
	When the oil change indicator resets the instrument cluster displays 100%. Remaining Life {00}%
	If the instrument cluster displays one of the following messages, repeat the process. Not Reset Reset Cancelled

ENGINE COOLANT CHECK

WARNINGS

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, spilling coolant on hot engine parts can burn you.

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.

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 you loosen the cap slightly.

Do not add coolant further than the **MAX** mark.

Checking the Engine Coolant

When the engine is cold, check the concentration and level of the engine coolant at the intervals listed in the scheduled maintenance information. See **Scheduled Maintenance** (page 321).

Note: *Make sure that the coolant level is between the **MIN** and **MAX** marks on the coolant reservoir.*

Note: *Coolant expands when it is hot. The level may extend beyond the **MAX** mark.*

Note: *If the level is at the MIN mark, below the MIN mark, or empty, add coolant immediately.*

Maintain coolant concentration within 48% to 50%, which equates to a freeze point between -30ºF (-34ºC) and -34ºF (-37ºC).

Note: *For best results, coolant concentration should be tested with a refractometer such as Robinair® Coolant and Battery Refractometer 75240. We do not recommend the use of hydrometers or coolant test strips for measuring coolant concentrations.*

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

Note: *Do not use stop leak pellets, cooling system sealants or additives as they can cause damage to the engine cooling or heating systems. Your warranty may not cover these damages.*

Note: *During normal vehicle operation, the coolant may change color from orange to pink or light red. As long as the coolant is clear and uncontaminated, this color change does not indicate the coolant has degraded nor does it require the coolant to be drained, the system to be flushed, or the coolant to be replaced.*

Do not mix different colors or types of coolant in your vehicle. Mixing of engine coolants may harm your engine's cooling system. Use prediluted engine coolant meeting the correct specification. See **Capacities and Specifications** (page 296). The use of an incorrect coolant may harm the engine or cooling system components and may not be covered by the vehicle Warranty.

In case of emergency, you can add a large amount of water without engine coolant in order to reach a vehicle service location. In this instance, qualified personnel:

1. Must drain the cooling system.
2. Chemically clean the cooling system with Motorcraft Premium Cooling System Flush.
3. Refill with engine coolant as soon as possible.

Water alone, without engine coolant, can cause engine damage from corrosion, overheating or freezing.

Do not use the following as a coolant substitute:

- Alcohol.
- Methanol.
- Brine.
- Any engine coolant mixed with alcohol or methanol antifreeze or 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.

When adding coolant:

1. Unscrew the cap slowly. Any pressure will escape as you unscrew the cap.
2. Add prediluted engine coolant meeting the correct specification. See **Capacities and Specifications** (page 296).
3. Check the coolant level in the coolant reservoir the next few times you drive your vehicle.
4. If necessary, add enough prediluted engine coolant to bring the coolant level to the proper level.

Recycled Engine Coolant

We do not recommend the use of recycled engine coolant as an 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.

Severe Climates

If you drive in extremely cold climates:

- It may be necessary to have an authorized dealer increase the coolant concentration above 50%.
- A coolant concentration of 60% provides improved freeze point protection. Engine coolant concentrations above 60% decrease the overheat protection characteristics of the engine coolant and may cause engine damage.

If you drive in extremely hot climates:

- It may be necessary to have an authorized dealer decrease the coolant concentration to 40%.
- A coolant concentration of 40% provides improved overheat protection. Engine coolant concentrations below 40% decrease the freeze and corrosion protection characteristics of the engine coolant and may cause engine damage.

Vehicles driven year-round in non-extreme climates should use prediluted engine coolant for optimum cooling system and engine protection.

What You Should Know About Fail-Safe Cooling

If you deplete the engine coolant supply, fail-safe cooling allows you to temporarily drive your vehicle before you incur incremental component damage. 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 red (hot) area and:

the coolant temperature warning light will illuminate

the service engine soon indicator will illuminate.

If the engine reaches a preset over-temperature condition, the engine automatically switches to alternating cylinder operation. Each disabled cylinder acts as an air pump and cools the engine.

When this occurs, your vehicle will still operate. However:

- The engine power will be limited.
- This will disable the air conditioning system.

Continued operation increases the engine temperature, causing the engine to completely shut down. Your steering and braking effort increases in this situation.

When the engine temperature cools, you can re-start your engine. Take your vehicle to an authorized dealer as soon as possible to minimize engine damage.

When Fail-Safe Mode Is Activated

WARNINGS

Fail-safe mode is for use during emergencies only. Operate your vehicle in fail-safe mode only as long as necessary to bring your vehicle to rest in a safe location and seek immediate repairs. When in fail-safe mode, your vehicle will have limited power, will not be able to maintain high-speed operation, and may completely shut down without warning, potentially losing engine power, power steering assist, and power brake assist, which may increase the possibility of a crash resulting in serious injury.

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

You have limited engine power when in the fail-safe mode, so drive your vehicle with caution. Your vehicle will not maintain high-speed operation and the engine will operate poorly.

Remember that the engine is capable of automatically shutting down to prevent engine damage. In this situation:

1. Pull off the road as soon as safely possible and switch off the engine.
2. Tow your vehicle to an authorized dealer.
3. If this is not possible, wait a short period for the engine to cool.
4. Check the coolant level and add if low.
5. Re-start the engine and drive your vehicle to an authorized dealer.

Note: *Driving your vehicle without repair increases the chance of engine damage. Contact an authorized dealer as soon as possible.*

Engine Fluid Temperature Management (If Equipped)

WARNINGS

To reduce the risk of crash and injury, be prepared that the vehicle speed may reduce and the vehicle may not be able to accelerate with full power until the fluid temperatures reduce.

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

Your vehicle can pull a trailer, but because of the added load, your vehicle's engine may temporarily reach higher temperatures during severe operating conditions such as ascending a long or steep grade while pulling a trailer in high temperatures.

At this time, you may notice your engine coolant temperature gauge needle move toward the **H** and the **POWER REDUCED TO LOWER TEMP** message may appear in the information display.

You may notice a reduction in vehicle speed caused by reduced engine power. In order to manage the engine fluid temperatures, your vehicle may enter this mode if certain high-temperature and high-load conditions take place. The amount of speed reduction depends on many factors such as vehicle loading, towing, grade and ambient temperature. If this occurs, there is no need to pull off the road. You can continue to drive your vehicle while this message is active.

The air conditioning may also cycle on and off during severe operating conditions to protect overheating of the engine. When the engine coolant temperature decreases to a normal operating temperature, the air conditioning will turn on once again.

If the engine coolant temperature gauge moves fully into the red (hot) area, or if the coolant temperature warning or service engine soon messages appear in your information display:

1. Pull off the road as soon as safely possible and shift the transmission into **P**.
2. Leave the engine running until the coolant temperature gauge needle moves away from the red (hot) area. After several minutes, if the temperature does not drop, follow the remaining steps.
3. Switch the engine off and wait for it to cool before checking the coolant level.
4. If the coolant level is normal, restart your engine and continue.
5. If the coolant is low, add coolant, and restart the engine. See **Adding Engine Coolant** or **How Fail-Safe Cooling Works** in this chapter for more information.

AUTOMATIC TRANSMISSION FLUID CHECK

6F50/6F55 Transmission (If Equipped)

WARNINGS

The dipstick cap and surrounding components may be hot, use gloves.

Use gloves when moving the air filter assembly. Components will be hot.

Note: *Automatic transmission fluid expands when warmed. To obtain an accurate fluid check, drive your vehicle until you warm it up, approximately 20 mi (30 km). If you operate your vehicle for an extended period at high speeds, in city traffic during hot weather or pulling a trailer, switch your vehicle off until it reaches normal operating temperatures to allow the fluid to cool before checking. Depending on vehicle use, cooling times could take up to 30 minutes or longer.*

Refer to your scheduled maintenance information for scheduled intervals for fluid checks and changes. Your transmission does not consume fluid. However, you should check the fluid level if the transmission is not working properly. For example, if the transmission slips or shifts slowly or if you notice some sign of a fluid leak.

1. Drive your vehicle 20 mi (30 km) or until it reaches normal operating temperature.
2. Park your vehicle on a level surface and engage the parking brake.
3. With the parking brake engaged and your foot on the brake pedal, start the engine and move the gearshift lever through all of the gear ranges. Allow a minimum of 10 seconds for each gear to engage.
4. Put the gearshift lever in park (P) and leave the engine running.

Note: *For vehicles with the EcoBoost engine, move the air filter assembly aside to access the transmission dipstick. See Moving the Air Filter Assembly for more information.*

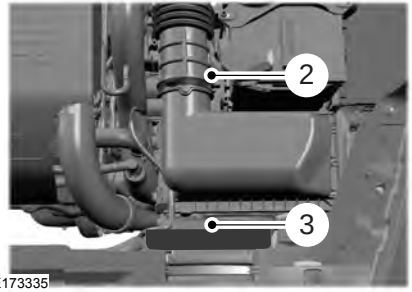
5. Remove the dipstick and wipe it clean with a dry, lint free clean rag. If necessary, refer to the Under hood overview in this chapter for the location of the dipstick.
6. Install the dipstick making sure you fully seat it in the filler tube by turning it to the locked position.
7. Remove the dipstick and inspect the fluid level. The fluid should be in the designated areas for normal operating temperature.

Moving the Air Filter Assembly (Accessing the Dipstick)

WARNING

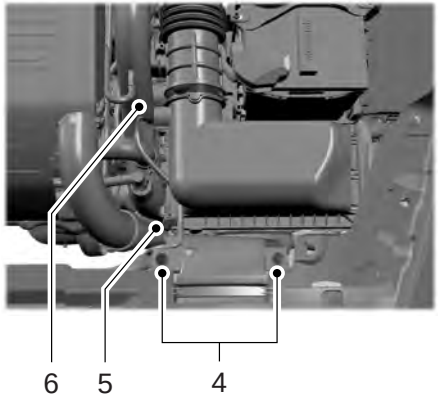
Do not run engine with the air filter disconnected.

1. Switch the engine off.



E173335

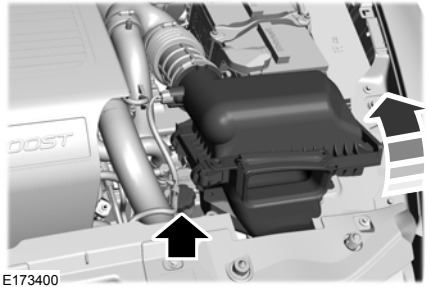
2. Clean the area around the clamp that connects the air filter assembly to the rubber hose and then loosen it.
3. Remove the bolt cover.



E173334

4. Remove two bolts that attach the air filter assembly to the front of the vehicle.
5. Remove the harness retaining clip by pulling up.

6. Do not disconnect the sensor.

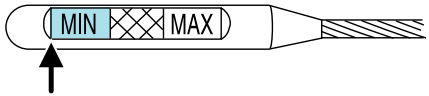

E173400

7. Pull the air filter assembly up to disconnect it from the seated grommets located under the air filter assembly.
8. Rotate the air filter assembly 90 degrees counterclockwise. Make sure the rubber hose is still connected to the air filter assembly.
9. Tighten the clamp.

You can now access the transmission fluid level indicator.

Checking the fluid level

Low fluid level

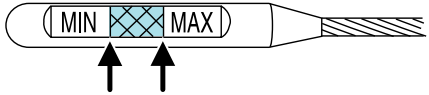


E158842

If the fluid level is below the MIN range of the dipstick, add fluid to reach the hash mark level.

Note: *If the fluid level is below the MIN level, do not drive the vehicle. An underfill condition may cause shift or engagement concerns or possible damage.*

Correct fluid level

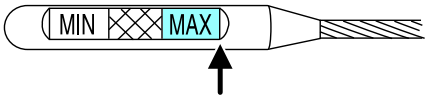


E158843

Check the transmission fluid at the normal operating temperatures between 180°F (82°C) and 200°F (93°C) on a level surface. Drive your vehicle until you warm it up to the normal operating temperature after approximately 20 mi (30 km).

Target the transmission fluid level within the cross-hatch area if at the normal operating temperature between 180°F (82°C) and 200°F (93°C).

High fluid level

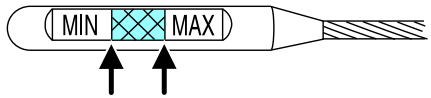


E158844

If the fluid level is above the MAX range of the dipstick, remove fluid to reach the hashmark level.

Note: *Fluid level above the MAX level may cause shift or engagement concerns or possible damage. An overheating condition can cause high fluid levels. If you operate your vehicle for an extended period at high speeds, in city traffic during hot weather or pulling a trailer, you should switch your vehicle off until your vehicle reaches normal operating temperatures. Depending on vehicle use, cooling times could take up to 30 minutes or longer.*

Adjusting Automatic Transmission Fluid Levels



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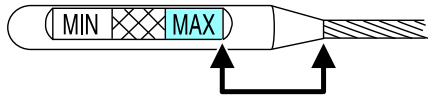


E158846

Before adding any fluid, make sure the correct type is used. The type of fluid used is normally indicated on the dipstick and in the Technical Specifications section in this chapter.

Note: *An overfill condition of transmission fluid may cause shift or engagement concerns or possible damage.*

Do not use supplemental transmission fluid additives, treatments or cleaning agents. The use of these materials may affect transmission operation and result in damage to internal transmission components. Reinstall the air filter assembly. After you check the fluid level and adjust as necessary, do the following:

1. Switch the engine off.
2. Loosen the clamp holding the air filter assembly to the rubber hose.
3. Seat the air filter assembly back into the grommets by pushing down on the air filter assembly.
4. Tighten the clamp.
5. Install and tighten the two bolts that attach the air filter assembly to the front of the vehicle.
6. Install the bolt cover.
7. Reinstall the harness retaining clip into the front of the air filter assembly.

BRAKE FLUID CHECK

WARNINGS

Do not use any fluid other than the recommended brake fluid as this will reduce brake efficiency. Use of incorrect fluid could result in the loss of vehicle control, serious personal injury or death.

Only use brake fluid from a sealed container. Contamination with dirt, water, petroleum products or other materials may result in brake system damage or failure. Failure to adhere to this warning could result in the loss of vehicle control, serious personal injury or death.

Do not allow the fluid to touch your skin or eyes. If this happens, rinse the affected areas immediately with plenty of water and contact your physician.

A fluid level between the **MAX** and **MIN** lines is within the normal operating range and there is no need to add fluid. A fluid level not in the normal operating range could compromise the performance of the system. Have your vehicle checked immediately.

E170684

To avoid fluid contamination, the reservoir cap must remain in place and fully tight, unless you are adding fluid.

Only use fluid that meets Ford specifications. See **Capacities and Specifications** (page 296).

POWER STEERING FLUID CHECK

Your vehicle is equipped with an electric power steering (EPS) system. There is no fluid reservoir to check or fill.

WASHER FLUID CHECK

WARNING

If you operate your vehicle in temperatures below 40ºF (5ºC), 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.

Add fluid to fill the reservoir if the level is low. Only use a washer fluid that meets Ford specifications. See **Capacities and Specifications** (page 296).

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.

FUEL FILTER

Your vehicle is equipped with a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is not needed.

CHANGING THE 12V BATTERY

WARNINGS

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 correct 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 damage to the vehicle or battery. Lift the battery with a battery carrier or with your hands on opposite corners.

WARNINGS

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.

This vehicle may be fitted with more than one battery. Removing the battery cables from only one battery does not disconnect your vehicle electrical system. Make sure you disconnect the battery cables from all batteries when disconnecting power. Failure to do so may cause serious personal injury or property damage.

Your vehicle is fitted with a Motorcraft maintenance-free battery which normally does not require additional water.

When a battery replacement is required, you must use a recommended replacement battery that matches the electrical requirements of the vehicle.

Note: *After cleaning or replacing the battery, make sure you reinstall the battery cover or shield.*

Note: *If you add electrical accessories or components to the vehicle, it may adversely affect the low voltage battery performance and durability. This may also affect the performance of other electrical systems in the vehicle.*

For longer, trouble-free operation, keep the top of the battery clean and dry.

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.

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. Flexible fuel vehicles (FFV) must also relearn the ethanol content of the fuel for optimum driveability and performance.

To restore the settings, do the following:

1. Apply the parking brake.
2. Shift into park (P) or neutral (N).
3. Switch off all accessories.
4. Press the brake pedal and start your vehicle.
5. Run the engine until it reaches normal operating temperature. While the engine is warming up, complete the following: Reset the clock. See **Audio System** (page 313). Reset the power windows bounce-back feature. See **Windows and Mirrors** (page 78). Reset the radio station presets. See **Audio System** (page 313).
6. Allow the engine to idle for at least one minute.
7. Drive the vehicle at least 10 mi (16 km) to completely relearn the idle trim and fuel trim strategy.

Note: *If you do not allow the engine to relearn the idle and fuel trim strategy, the idle quality of your vehicle may be adversely affected until the engine computer eventually relearns the idle trim and fuel trim strategy.*

Note: *For flexible fuel vehicles, if you are operating on E85, you may experience poor starts or an inability to start the engine and driveability problems until the fuel trim and ethanol content have been relearned.*

Make sure that you dispose of old batteries in an environmentally friendly way. Seek advice from your local authority about recycling old batteries.

If storing your vehicle for more than 30 days without recharging the battery, we recommend that you disconnect the battery cables to maintain battery charge for quick starting.

Battery Management System (If Equipped)

The battery management system monitors battery conditions and takes actions to extend battery life. If excessive battery drain is detected, the system temporarily disables some electrical systems to protect the battery.

Systems included are:

- Heated rear window.
- Heated seats.
- Climate control.
- Heated steering wheel.
- Audio unit.
- Navigation system.

A message may appear in the information displays to alert you that battery protection actions are active. These messages are only for notification that an action is taking place, and not intended to indicate an electrical problem or that the battery requires replacement.

After battery replacement, or in some cases after charging the battery with an external charger, the battery management system requires eight hours of vehicle sleep time to relearn the battery state of charge. During this time your vehicle must remain fully locked with the ignition switched off.

Note: *Prior to relearning the battery state of charge, the battery management system may temporarily disable some electrical systems.*

Electrical Accessory Installation

To make sure the battery management system works correctly, do not connect an electrical device ground connection directly to the battery negative post. This can cause inaccurate measurements of the battery condition and potential incorrect system operation.

Note: *If you add electrical accessories or components to the vehicle, it may adversely affect battery performance and durability. This may also affect the performance of other electrical systems in the vehicle.*

CHECKING THE WIPER BLADES

E142463

Run the tip of your fingers over the edge of the blade to check for roughness.

Clean the wiper blades with washer fluid or water applied with a soft sponge or cloth.

CHANGING THE WIPER BLADES

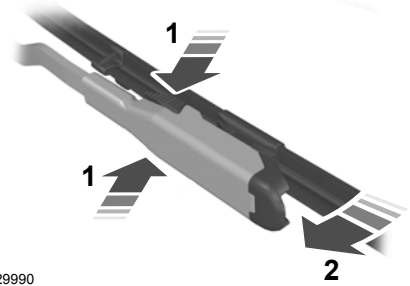
Replace the wiper blades at least annually for optimum performance.

You can improve poor wiper quality by cleaning the wiper blades and the windshield. See **Cleaning the Windows and Wiper Blades** (page 265).

Changing the Windshield Wiper Blades

Note: *Do not hold the wiper blade when lifting the wiper arm.*

Note: *Make sure that the wiper arm does not spring back against the glass when the wiper blade is not attached.*



E129990

1. Lift the wiper arm and then press the wiper blade locking buttons together.
2. Slightly rotate the wiper blade.
3. Remove the wiper blade.
4. Install in the reverse order.

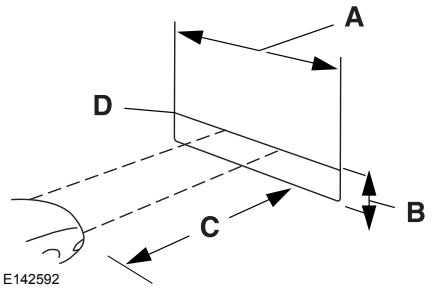
Note: *Make sure that the wiper blade locks into place.*

ADJUSTING THE HEADLAMPS

Vertical Aim Adjustment

The headlamps on your vehicle are properly aimed at the assembly plant. If your vehicle has been in an accident, have the alignment of your headlamps checked by your authorized dealer.

Headlamp Aiming Target



E142592

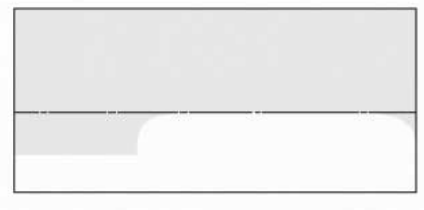
A	8 feet (2.4 meters)
B	Center height of lamp to ground
C	25 feet (7.6 meters)
D	Horizontal reference line

Vertical Aim Adjustment

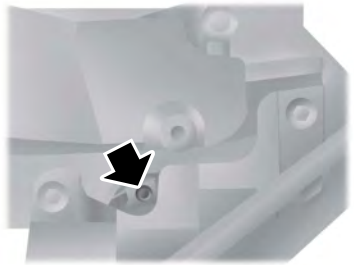
1. Park the vehicle directly in front of a wall or screen on a level surface, approximately 25 feet (7.6 meters) away.
2. Measure the height from the center of your headlamp (indicated by a 3.0 millimeter circle on the lens) to the ground and mark an 8 foot (2.4 meter) horizontal reference line on the vertical wall or screen at this height (a piece of masking tape works well).

Note: *To see a clearer light pattern for adjusting, you may want to block the light from one headlamp while adjusting the other.*

3. Turn on the low beam headlamps to illuminate the wall or screen and open the hood. Cover one of the headlamps so no light hits the wall.


E142465

4. There is a distinct cut-off (change from light to dark) in the left portion of the beam pattern. Position the top edge of this cut-off 2 inches (5 centimeters) below the horizontal reference line.


E167359

5. Locate the vertical adjuster on each headlamp. Use a Phillips #2 screwdriver to turn the adjuster either clockwise or counterclockwise to adjust the vertical aim of the headlamp. The horizontal edge of the brighter light should touch the horizontal reference line.
6. Repeat Steps 3 through 7 to adjust the other headlamp.
7. Close the hood and turn off the lamps.

Horizontal Aim Adjustment

Horizontal aim is not required for this vehicle and is not adjustable.

CHANGING A BULB

WARNINGS

Bulbs can become hot. Let the bulb cool down before removing it. Failure to do so could result in personal injury.

Switch the lamps and the ignition off. Failure to follow this warning could result in serious personal injury.

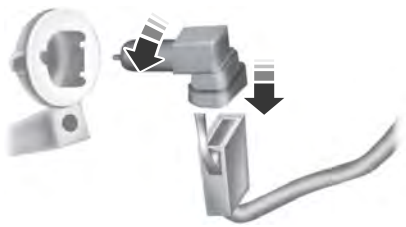
Use the correct specification bulb. See **Bulb Specification Chart** (page 260).

Install in the reverse order unless otherwise stated.

High-Intensity Discharge Headlamps

These lamps operate at a high voltage. See an authorized dealer if they fail.

Front Fog Lamp (If Equipped)



E163826

1. Switch all of the lamps and the ignition off.
2. Disconnect the electrical connector.
3. Turn the bulb holder counterclockwise and remove it.

Note: *Do not touch the bulb glass.*

Note: *You cannot separate the bulb from the bulb holder.*

LED Lamps

LED lamps are not serviceable items. See an authorized dealer if they fail.

The following lamps are LED:

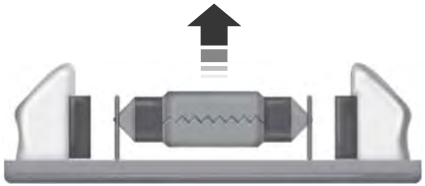
- Front parking lamps.
- Front side marker lamps.
- Front direction indicators.
- Front side marker lamps.
- Side direction indicators.
- Brake and rear lamps.
- Central high mounted brake lamp.
- Rear direction indicators.
- Reversing lamps.

License Plate Lamp

1. Switch all of the lamps and the ignition off.

E178598

2. Remove the screws that secure the lamp assembly.



E178599

3. Remove the bulb.

BULB SPECIFICATION CHART

The specified replacement bulbs are in the chart below. Headlamp bulbs must be marked with an authorized D.O.T. (Department of Transportation) for North America to affirm lamp performance, light brightness and pattern and safe visibility. The correct bulbs will not damage the lamp assembly or void the lamp assembly warranty and will provide quality bulb burn time.

Function	Trade number
* Headlamp (high intensity discharge) Low and High	D3S
* Sidemarker - front	LED
* Park lamp - front	LED
* Turn lamp - front	7444NA
Fog lamp	H11
Signal indicator mirror lamp	LED
Approach lamp	LED
* Tail and brake lamp	LED

Function	Trade number
* Turn lamp - rear	LED
* Backup lamp	LED
License plate lamp	W5W
* High-mount brake lamp	LED
Interior lamps	W5W

* To replace these lamps, see an authorized dealer.

To replace instrument panel lights, see an authorized dealer.

CHANGING THE ENGINE AIR FILTER

WARNING

Do not start the engine with the air cleaner removed. This can cause damage not covered by the vehicle Warranty and can result in serious injury.

When changing the air filter element, use only the air filter element listed. See **Capacities and Specifications** (page 296).

For vehicles with EcoBoost engines, when servicing the air cleaner, it is important that no foreign material enters the air induction system. The engine and turbocharger are susceptible to damage from even small particles.

Change the air filter element at the correct interval. See **Scheduled Maintenance** (page 321).

Note: *Failure to use the correct air filter element may result in severe engine damage. Resulting component damage may not be covered by the vehicle Warranty.*

To replace the air filter element do the following:

1. Switch the ignition off.

E173520

2. Remove the clips that secure the air filter housing cover.
3. Carefully lift the air filter housing cover.
4. Remove the air filter element from the air filter housing.
5. Wipe any dirt or debris from the air filter housing and cover to make sure no dirt gets in the engine and that you have a good seal.
6. Install a new air filter element.
7. Install the air filter housing cover. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unfiltered air to enter the engine if it is not properly seated.
8. Engage the clips to secure the air filter housing cover to the air filter housing.

GENERAL INFORMATION

Your Ford or Lincoln authorized dealer has many quality products available to clean your vehicle and protect its finishes.

CLEANING PRODUCTS

For best results, use the following products or products of equivalent quality:

Materials

Name	Specification
Motorcraft Bug and Tar Remover ZC-42	-
Motorcraft Custom Bright Metal Cleaner ZC-15	-
Motorcraft® Detail Wash ZC-3-A	ESR-M14P4-A
Motorcraft Engine Shampoo and Degreaser (U.S.) ZC-20 (U.S.)	-
Engine Shampoo	-
Motorcraft Leather and Vinyl Cleaner ZC-56	-
Multi-Purpose Cleaner	-
Motorcraft® Premium Windshield Wash Concentrate with Bitterant (U.S.) ZC-32-B2 (U.S.)	WSS-M14P19-A
Professional Strength Carpet and Upholstery Cleaner ZC-54	-
Motorcraft Spot and Stain Remover (U.S.) ZC-14 (U.S.)	-
Motorcraft® Ultra-Clear Spray Glass Cleaner (U.S.) ZC-23 (U.S.)	ESR-M14P5-A
Motorcraft® Wheel and Tire Cleaner ZC-37-A	-

CLEANING THE EXTERIOR

Wash your vehicle regularly with cool or lukewarm water and a neutral pH shampoo, we recommend Motorcraft Detail Wash.

- Never use strong household detergents or soap, for example dish washing or laundry liquid. These products can discolor and spot painted surfaces.
- Never wash your vehicle when it is hot to the touch, or during strong or direct sunlight.
- Dry your vehicle with a chamois or soft terry cloth towel to eliminate water spotting.
- Immediately remove fuel spillages, bird droppings, insect deposits and road tar. These may cause damage to your vehicle's paintwork or trim over time. We recommend Motorcraft Bug and Tar Remover.
- Remove any exterior accessories, for example antennas, before entering a car wash.

Note: *Suntan lotions and insect repellents can damage painted surfaces. If these substances come in contact with your vehicle, wash the affected area as soon as possible.*

Exterior Chrome Parts

- Apply a high quality-cleaning product to bumpers and other chrome parts. Follow the manufacturer's instructions. We recommend Motorcraft Custom Bright Metal Cleaner.
- Do not apply the cleaning product to hot surfaces. Do not leave the cleaning product on chrome surfaces longer than the time recommended.
- Using other non-recommended cleaners can result in severe and permanent cosmetic damage.

Note: *Never use abrasive materials, for example steel wool or plastic pads as they can scratch the chrome surface.*

Note: *Do not use chrome cleaner, metal cleaner or polish on wheels or wheel covers.*

Exterior Plastic Parts

For routine cleaning we recommend Motorcraft Detail Wash. If tar or grease spots are present, we recommend Motorcraft Bug and Tar Remover.

Stripes or Graphics (If Equipped)

Hand washing your vehicle is preferred however, pressure washing may be used under the following conditions:

- Do not use water pressure higher than 2,000 psi (14,000 kPa).
- Do not use water hotter than 179ºF (82ºC).
- Use a spray with a 40º wide spray angle pattern.
- Keep the nozzle at a 12 in (305 mm) distance and 90º angle to your vehicle's surface.

Note: *Holding the pressure washer nozzle at an angle to the vehicle's surface may damage graphics and cause the edges to peel away from the vehicle's surface.*

Underbody

Flush the complete underside of your vehicle frequently. Keep body and door drain holes free of debris or foreign material.

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WAXING

Regular waxing is necessary to protect your car's paint from the elements. We recommend that you wash and wax the painted surface once or twice a year.

When washing and waxing, park your vehicle in a shaded area out of direct sunlight. Always wash your vehicle before applying wax.

- Use a quality wax that does not contain abrasives.
- Follow the manufacturer's instructions to apply and remove the wax.
- Apply a small amount of wax in a back-and-forth motion, not in circles.
- Do not allow wax to come in contact with any non-body (low-gloss black) colored trim. The wax will discolor or stain the parts over time.
  - Roof racks.
  - Bumpers.
  - Grained door handles.
  - Side moldings.
  - Mirror housings.
  - Windshield cowl area.
- Do not apply wax to glass areas.
- After waxing, your car's paint should feel smooth, and be free of streaks and smudges.

CLEANING THE ENGINE

Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal.

When washing:

- Take care when using a power washer to clean the engine. The high-pressure fluid could penetrate the sealed parts and cause damage.
- Do not spray a hot engine with cold water to avoid cracking the engine block or other engine components.
- Spray Motorcraft Engine Shampoo and Degreaser on all parts that require cleaning and pressure rinse clean. In Canada, use Motorcraft Engine Shampoo.
- Never wash or rinse the engine while it is hot or running; water in the running engine may cause internal damage.
- Never wash or rinse any ignition coil, spark plug wire or spark plug well, or the area in and around these locations.
- Cover the battery, power distribution box, and air filter assembly to prevent water damage when cleaning the engine.

CLEANING THE WINDOWS AND WIPER BLADES

Car wash chemicals and environmental fallout can result in windshield and wiper blade contamination. Dirty windshield and wipers will result in poor windshield wiper operation. Keep the windshield and wiper blades clean to maintain windshield wiper performance.

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To clean the windshield and wiper blades:

- Clean the windshield with a non-abrasive glass cleaner. When cleaning the interior of the windshield, avoid getting any glass cleaner on the instrument panel or door panels. Wipe any glass cleaner off these surfaces immediately.
- For windshields contaminated with tree sap, chemicals, wax or bugs, clean the entire windshield using steel wool (no greater than 0000 grade) in a circular motion and rinse with water.
- Clean the wiper blades with isopropyl rubbing alcohol or windshield washer concentrate.

Note: *Do not use razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty does not cover damage caused to the heated rear window grid lines.*

CLEANING THE INTERIOR

WARNINGS

Do not use cleaning solvents, bleach or dye on the vehicle's safety belts, as these actions may weaken the belt webbing.

WARNINGS

On vehicles equipped with seat-mounted airbags, do not use chemical solvents or strong detergents. Such products could contaminate the side airbag system and affect performance of the side airbag in a collision.

For fabric, carpets, cloth seats, safety belts and seats equipped with side airbags:

- Remove dust and loose dirt with a vacuum cleaner.
- Remove light stains and soil with Motorcraft Professional Strength Carpet & Upholstery Cleaner.
- If grease or tar is present on the material, spot-clean the area first with Motorcraft Spot and Stain Remover. In Canada, use Motorcraft Multi-Purpose Cleaner.
- If a ring forms on the fabric after spot cleaning, clean the entire area immediately (but do not oversaturate) or the ring will set.
- 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.

CLEANING THE INSTRUMENT PANEL AND INSTRUMENT CLUSTER LENS

WARNING

Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the airbag system.

Note: *Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces. See* ***Cleaning Leather Seats*** *(page 267).*

Clean the instrument panel and cluster lens with a clean, damp and soft cloth, then use a clean, dry and soft cloth to dry these areas.

- Avoid cleaners or polishes that increase the gloss of the upper portion of the instrument panel. The dull finish in this area helps protect you from undesirable windshield reflection.
- Do not use any household cleaning products or glass cleaners as these may damage the finish of the instrument panel, interior trim and cluster lens.

- Wash or wipe your hands clean if you have been in contact with certain products such as insect repellent and suntan lotion to avoid possible damage to the interior painted surfaces.
- Do not allow air fresheners and hand sanitizers to spill onto interior surfaces. If a spill occurs, wipe off immediately. Your warranty may not cover these damages.

If a staining liquid like coffee or juice has been spilled on the instrument panel or on interior trim surfaces:

1. Wipe up spilled liquid using a clean, soft cloth as quickly as possible.
2. Use Motorcraft Premium Leather and Vinyl Cleaner or a commercially available leather cleaning product for automotive interiors. Test any cleaner or stain remover on an inconspicuous area.
3. Alternatively, wipe the surface with a clean, soft cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
4. If necessary, apply more soap and water solution or cleaning product to a clean, soft cloth and press it onto the soiled area. Allow this to set at room temperature for 30 minutes.
5. Remove the soaked cloth, then with a clean, damp cloth, use a rubbing motion for 60 seconds on the soiled area.
6. Dry the area with a clean, soft cloth.

CLEANING LEATHER SEATS

Note: *Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces.*

For routine cleaning, wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.

For cleaning and removing stains such as dye transfer, use Motorcraft Premium Leather and Vinyl Cleaner or a commercially available leather cleaning product for automotive interiors.

Note: *Test any cleaner or stain remover on an inconspicuous area.*

You should:

- Remove dust and loose dirt with a vacuum cleaner.
- Clean and treat spills and stains as soon as possible.

Do not use the following products as these may damage the leather:

- Oil and petroleum or silicone-based leather conditioners.
- Household cleaners.
- Alcohol solutions.
- Solvents or cleaners intended specifically for rubber, vinyl and plastics.

REPAIRING MINOR PAINT DAMAGE

Authorized dealers have touch-up paint to match your vehicle's color. Your vehicle color code is printed on a sticker on the front, left-hand side door jamb. Take your color code to your authorized dealer to make sure you get the correct color.

Before repairing minor paint damage, use a cleaner such as Motorcraft Bug and Tar Remover to remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout.

Always read the instructions before using cleaning products.

CLEANING THE ALLOY WHEELS

Note: *Do not apply a cleaning chemical to warm or hot wheel rims and covers.*

Note: *Some automatic car washes may cause damage to the finish on your wheel rims and covers.*

Note: *Industrial-strength or heavy-duty cleaners in combination with brush agitation to remove brake dust and dirt, could wear away the clear coat finish over a period time.*

Note: *Do not use hydrofluoric acid-based or high caustic-based wheel cleaners, steel wool, fuels or strong household detergents.*

Note: *If you intend parking your vehicle for an extended period after cleaning the wheels with a wheel cleaner, drive your vehicle for a few minutes before doing so. This will reduce the risk of increased corrosion of the brake discs.*

Alloy wheels and wheel covers are coated with a clear coat paint finish. To maintain their condition we recommend that you:

- Clean the wheels weekly using Motorcraft Wheel and Tire Cleaner. Apply using manufacturer's instructions.
- Use a sponge to remove heavy deposits of dirt and brake dust accumulation.
- Rinse thoroughly with a strong stream of water when you have completed the cleaning process.
- To remove tar and grease, use Motorcraft Bug and Tar Remover.

VEHICLE STORAGE

If you plan on storing your vehicle for 30 days or more, read the following maintenance recommendations to make sure your vehicle stays in good operating condition.

We engineer and test all motor vehicles and their components for reliable, regular driving. Under various conditions, long-term storage may lead to degraded engine performance or failure unless you use specific precautions to preserve engine components.

General

- Store all vehicles in a dry, ventilated place.
- Protect from sunlight, if possible.
- If vehicles are stored outside, they require regular maintenance to protect against rust and damage.

Body

- Wash your vehicle thoroughly to remove dirt, grease, oil, tar or mud from exterior surfaces, rear-wheel housing and the underside of front fenders.
- Periodically wash your vehicle if it is stored in exposed locations.
- Touch-up exposed or primed metal to prevent rust.
- Cover chrome and stainless steel parts with a thick coat of auto wax to prevent discoloration. Re-wax as necessary when you wash your vehicle.
- Lubricate all hood, door and luggage compartment hinges and latches with a light grade oil.
- Cover interior trim to prevent fading.
- Keep all rubber parts free from oil and solvents.

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Engine

- Change the engine oil and filter prior to storage because used engine oil contains contaminates which may cause engine damage.
- Start the engine every 15 days for a minimum of 15 minutes. Run at fast idle with the climate controls set to defrost until the engine reaches normal operating temperature.
- With your foot on the brake, shift through all the gears while the engine is running.
- We recommend that you change the engine oil before you use your vehicle again.

Fuel system

- Fill the fuel tank with high-quality fuel until the first automatic shutoff of the fuel pump nozzle.

Cooling system

- Protect against freezing temperatures.
- When removing your vehicle from storage, check coolant fluid level. Confirm that there are no cooling system leaks and that fluid is at the recommended level.

Battery

- Check and recharge as necessary. Keep connections clean.
- If storing your vehicle for more than 30 days without recharging the battery, we recommend that you disconnect the battery cables to maintain battery charge for quick starting.

Note: *It is necessary to reset memory features if battery cables are disconnected.*

Brakes

- Make sure the brakes and parking brake release fully.

Tires

- Maintain recommended air pressure.

Miscellaneous

- Make sure all linkages, cables, levers and pins under your vehicle are covered with grease to prevent rust.
- Move vehicles at least 25 ft (7.5 m) every 15 days to lubricate working parts and prevent corrosion.

Removing Vehicle From Storage

When your vehicle is ready to come out of storage, do the following:

- Wash your vehicle to remove any dirt or grease film build-up on window surfaces.
- Check windshield wipers for any deterioration.
- Check under the hood for any foreign material that may have collected during storage such as mice or squirrel nests.
- Check the exhaust for any foreign material that may have collected during storage.
- Check tire pressures and set tire inflation per the Tire Label.
- Check brake pedal operation. Drive your vehicle 15 ft (4.5 m) back and forth to remove rust build-up.
- Check fluid levels (including coolant, oil and gas) to make sure there are no leaks, and fluids are at recommended levels.
- If you remove the battery, clean the battery cable ends and check for damage.

Contact an authorized dealer if you have any concerns or issues.

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TIRE CARE

Information About Uniform Tire Quality Grading

E142542

Tire Quality Grades apply to new pneumatic passenger car tires. 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 passenger car tires. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, light truck or LT type 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 Motor Company 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 1 ½ 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

WARNING

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

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 A B C

WARNING

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.

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. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Glossary of Tire Terminology

- **Tire label:** A label showing the original equipment tire sizes, recommended inflation pressure and the maximum weight the vehicle can carry.
- **Tire Identification Number:** A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture. Also referred to as DOT code.
- **Inflation pressure:** A measure of the amount of air in a tire.

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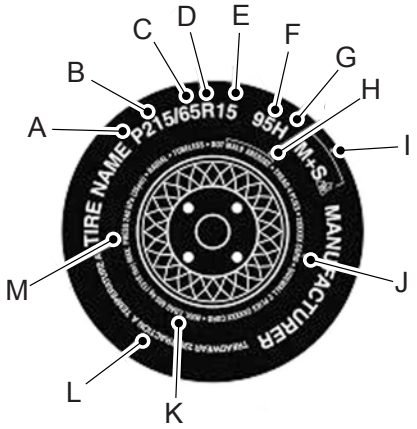
- **Standard load:** A class of P-metric or Metric tires designed to carry a maximum load at set pressure. For example: For P-metric tires 35 psi (2.4 bar) or 36 (2.5 bar) depending on tire size and for Metric tires 36 psi (2.5 bar). Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.
- **Extra load:** A class of P-metric or Metric tires designed to carry a heavier maximum load at 42 psi (2.9 bar). 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 tire 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 Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or 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.

Information Contained on the Tire Sidewall

Both United States and Canada Federal regulations require 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



E142543

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.)

A. **P:** Indicates a tire, designated by the Tire and Rim Association, that may be used for service on cars, sport utility vehicles, minivans and light trucks. **Note:** If your tire size does not begin with a letter this may mean it is designated by either the European Tire and Rim Technical Organization or the Japan Tire Manufacturing Association.

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

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

D. **R:** Indicates a radial type tire.

E. **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.

F. **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 manual. 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.*

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

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

H. **U.S. DOT Tire Identification Number:** 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.

I. **M+S or M/S:** Mud and Snow, or

AT: All Terrain, or

AS: All Season.

J. **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.

K. **Maximum Load:** Indicates the maximum load in kilograms and pounds that can be carried by the tire. See the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), for the correct tire pressure for your vehicle.

L. **Treadwear, Traction and Temperature Grades:**

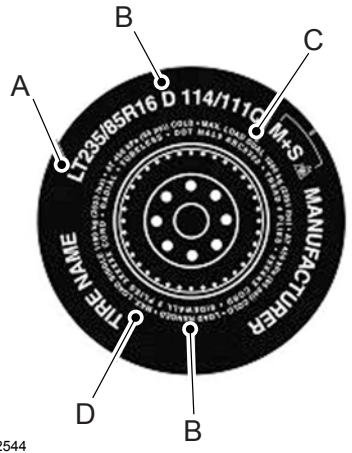
- **Treadwear** The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half times as well on the government course as a tire graded 100.
- **Traction:** 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.

M. **Maximum Inflation Pressure:** Indicates the tire manufacturers' maximum permissible pressure or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the vehicle manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire 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 or radial tubeless.

Additional Information Contained on the Tire Sidewall for LT Type Tires

Note: *Tire Quality Grades do not apply to this type of tire.*



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

A. **LT:** Indicates a tire, designated by the Tire and Rim Association, that is intended for service on light trucks.

B. **Load Range and Load Inflation Limits:** Indicates the tire's load-carrying capabilities and its inflation limits.

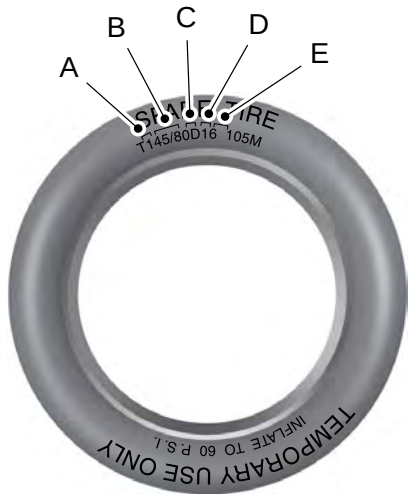
C. **Maximum Load Dual lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a dual; defined as four tires on the rear axle (a total of six or more tires on the vehicle).

D. **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.

Information on T Type Tires

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

Note: *The temporary tire size for your vehicle may be different from this example. Tire Quality Grades do not apply to this type of tire.*



E142545

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

A. **T:** Indicates a type of tire, designated by the Tire and Rim Association, that is intended for temporary service on cars, sport utility vehicles, minivans and light trucks.

B. **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.

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

D. **D:** Indicates a diagonal type tire.

R: Indicates a radial type tire.

E. **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.

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.

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

WARNING

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 Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire 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 Inflation Pressure is the tire manufacturer's maximum permissible pressure and 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 the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire 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 Safety Compliance Certification Label or Tire Label.

When weather temperature changes occur, tire inflation pressures also change. A 10ºF (6ºC) 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 Safety Compliance Certification Label or Tire Label.

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 are checking tire pressure when the tire is hot, (for example driven more than 1 mile [1.6 kilometers]), 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.*

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.*

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

Note: *If you overfill the tire, release air by pressing 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 operate at a higher inflation pressure than the other tires. For T type mini-spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at 60 psi (4.15 bar). For full-size and dissimilar spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at the higher of the front and rear inflation pressure as shown on the Tire Label.*

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.

Inspecting Your Tires and Wheel Valve Stems

Periodically inspect the tire treads for uneven or excessive wear and remove objects such as stones, nails or glass that may be wedged in the tread grooves. Check the tire and valve stems for holes, cracks, or cuts that may permit air leakage and repair or replace the tire and replace the valve stem. Inspect the tire sidewalls for cracking, cuts, bruises and other signs of damage or excessive wear. 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 or show signs of excessive wear should not be used because they are more likely to blow out or fail.

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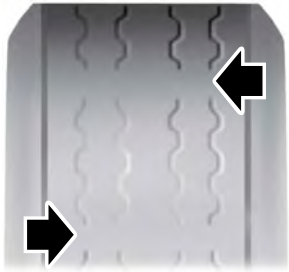
Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Inspect all your tires, including the spare, frequently, and replace them if one or more of the following conditions exist:

Tire Wear



E142546

When the tread is worn down to one sixteenth of an inch (2 millimeters), tires must be replaced to help 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 one sixteenth of an inch (2 millimeters).

When the tire tread wears down to the same height as these wear bars, the tire is worn out and must be replaced.

Damage

Periodically inspect the tire treads and sidewalls for damage (such as bulges in the tread or sidewalls, cracks in the tread groove and separation in the tread or sidewall). If damage is observed or suspected have the tire inspected by a tire professional. Tires can be damaged during off-road use, so inspection after off-road use is also recommended.

Age

WARNING

Tires degrade over time depending on many factors such as weather, storage conditions, and conditions of use (load, speed, inflation pressure) the tires experience throughout their lives.

In general, tires should be replaced after six years regardless of tread wear. However, heat caused by hot climates or frequent high loading conditions can accelerate the aging process and may require tires to be replaced more frequently.

You should replace your spare tire when you replace the road tires or after six years due to aging even if it has not been used.

U.S. DOT Tire Identification Number

Both U.S. and Canada Federal regulations require 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.

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.

Tire Replacement Requirements

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

WARNINGS

Only use replacement tires and wheels that are the same size, load index, speed rating and type (such as P-metric versus LT-metric or all-season versus all-terrain) as those originally provided by Ford. The recommended tire and wheel size may be found on either the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or the Tire Label which is

WARNINGS

located on the B-Pillar or edge of the driver's door. If this information is not found on these labels then you should contact your authorized dealer as soon as possible. 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, transfer case or power transfer unit failure. If you have questions regarding tire replacement, contact your authorized dealer as soon as possible.

WARNINGS

To reduce the risk of serious injury, when mounting replacement tires and wheels, you should not exceed the maximum pressure indicated on the sidewall of the tire to set the beads without additional precautions listed below. If the beads do not seat at the maximum pressure indicated, re-lubricate and try again

When inflating the tire for mounting pressures up to 20 psi (1.38 bar) greater than the maximum pressure on the tire sidewall, the following precautions must be taken to protect the person mounting the tire:

1. Make sure that you have the correct tire and wheel size.

2. Lubricate the tire bead and wheel bead seat area again.

WARNINGS

3. Stand at a minimum of 12 feet (3.66 meters) away from the wheel and tire assembly.

4. Use both eye and ear protection.

For a mounting pressure more than 20 psi (1.38 bar) greater than the maximum pressure, a Ford dealer or other tire service professional should do the mounting.

Always inflate steel carcass tires with a remote air fill with the person inflating standing at a minimum of 12 feet (3.66 meters) away from the wheel and tire assembly

Important: Remember to replace the wheel valve stems when the road tires are replaced on your vehicle

It is recommended that the two front tires or two rear tires generally be replaced as a pair.

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

The use of wheels or tires not recommended by Ford Motor Company may affect the operation of your tire pressure monitoring system.

If the tire pressure monitoring system indicator is flashing, your system is malfunctioning. Your replacement tire might be incompatible with your tire pressure monitoring system, or some component of the system may be damaged.

Safety Practices

WARNINGS

If your vehicle is stuck in snow, mud or sand, 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.

WARNINGS

Do not spin the wheels at over 35 mph (56 km/h). The tires may fail and injure a passenger or bystander.

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

Highway Hazards

No matter how carefully you drive there is 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 the wheel and replace it with your spare tire and wheel (if provided). 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 an authorized dealer check the wheel alignment periodically.

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Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by an authorized dealer. Front-wheel drive 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

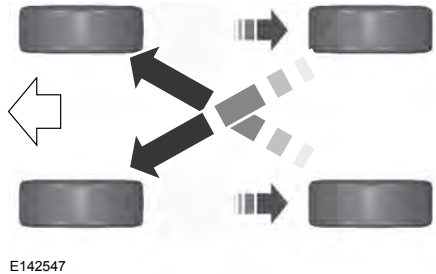
Note: *If your tires show uneven wear ask an authorized dealer to check for and correct any wheel misalignment, tire imbalance or mechanical problem involved before tire rotation.*

Note: *Your vehicle may be equipped with a dissimilar spare wheel and tire assembly. A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels. If you have a dissimilar spare wheel and tire assembly 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.*

Rotating your tires at the recommended interval (as indicated in the Scheduled Maintenance chapter) will help your tires wear more evenly, providing better tire performance and longer tire life.

Front-wheel drive and all-wheel drive vehicles (front tires on the left side of the diagram)



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

USING SNOW CHAINS

WARNINGS

If you choose to install snow tires on your vehicle, they must be the same size, construction, and load range as the original tires listed on the tire placard, and they must be installed on all four wheels. Mixing tires of different size or construction on your vehicle can adversely affect your vehicle's handling and braking, and may lead to loss of vehicle control.

WARNINGS

Do not use snow chains or cables on this vehicle as they may cause damage to your vehicle which may lead to loss of vehicle control.

Snow chains have not been approved for use on your vehicle.

The original equipment tires on your vehicle may have an all-weather tread design to provide traction, handling, and braking performance in year-round driving. You may install snow tires for improved traction when driving in areas with sustained periods of snow or icy driving conditions.

TIRE PRESSURE MONITORING SYSTEM

WARNING

The tire pressure monitoring system is not a substitute for manually checking tire pressure. The tire pressure should be checked periodically (at least monthly) using a tire gauge, see Inflating your tires in this chapter. Failure to properly maintain your tire pressure could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.

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

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

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

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

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

MKS (CLE) Canada/United States of America, enUSA, First Printing

The tire pressure monitoring system complies with part 15 of the FCC rules and with RSS-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.

Changing Tires With a Tire Pressure Monitoring System

E142549

Note: *Each road tire is equipped with a tire pressure sensor located inside the wheel and tire assembly cavity. The pressure sensor is attached to the valve stem. The pressure sensor is covered by the tire and is not visible unless the tire is removed. Take care when changing the tire to avoid damaging the sensor*

You should always have your tires serviced by an authorized dealer.

Check the tire pressure periodically (at least monthly) using an accurate tire gauge. See Inflating Your Tires in this chapter.

Understanding Your Tire Pressure Monitoring System

The tire pressure monitoring system measures pressure in your four road tires and sends the tire pressure readings to your vehicle. The low tire pressure warning light will turn on if the tire pressure is significantly low. Once the light is illuminated, your tires are under-inflated and need to be inflated to the manufacturer's recommended tire pressure. Even if the light turns on and a short time later turns off, your tire pressure still needs to be checked.

When Your Temporary Spare Tire is Installed

When one of your road tires needs to be replaced with the temporary spare, the system will continue to identify an issue to remind you that the damaged road wheel and tire assembly needs to be repaired and put back on your vehicle.

To restore the full function of the tire pressure monitoring system, have the damaged road wheel and tire assembly repaired and remounted on your vehicle.

When You Believe Your System is Not Operating Properly

The main function of the tire pressure monitoring system is to warn you when your tires need air. It can also warn you in the event the system is no longer capable of functioning as intended. See the following chart for information concerning your tire pressure monitoring system:

MKS (CLE) Canada/United States of America, enUSA, First Printing

Low tire pressure warning light	Possible cause	Customer action required
Solid warning light	Tire(s) under-inflated	Make sure tires are at the proper pressure. See Inflating your tires in this chapter. After inflating your tires to the manufacturer's recommended pressure as shown on the Tire Label (located on the edge of driver's door or the B-Pillar), the vehicle must be driven for at least two minutes over 20 mph (32 km/h) before the light turns off.
	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see **When your temporary spare tire is installed** in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.
Flashing warning light	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see **When your temporary spare tire is installed** in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.

When Inflating Your Tires

When putting air into your tires (such as at a gas station or in your garage), the tire pressure monitoring system may not respond immediately to the air added to your tires.

It may take up to two minutes of driving over 20 mph (32 km/h) for the light to turn off after you have filled your tires to the recommended inflation pressure

How Temperature Affects Your Tire Pressure

The tire pressure monitoring system monitors tire pressure in each pneumatic tire. While driving in a normal manner, a typical passenger tire inflation pressure may increase about 2 to 4 psi (14 to 28 kPa) from a cold start situation. If the vehicle is stationary overnight with the outside temperature significantly lower than the daytime temperature, the tire pressure may decrease about 3 psi (21 kPa) for a drop of 30ºF (17ºC) in ambient temperature. This lower pressure value may be detected by the tire pressure monitoring system as being significantly lower than the recommended inflation pressure and activate the system warning light for low tire pressure. If the low tire pressure warning light is on, visually check each tire to verify that no tire is flat. If one or more tires are flat, repair as necessary. Check the air pressure in the road tires. If any tire is under-inflated, carefully drive the vehicle to the nearest location where air can be added to the tires. Inflate all the tires to the recommended inflation pressure.

CHANGING A ROAD WHEEL

WARNINGS

The use of tire sealant may damage your tire pressure monitoring system and should only be used in roadside emergencies. If you must use a sealant, the Ford Tire Mobility Kit sealant should be used. The tire pressure monitoring system sensor and valve stem on the wheel must be replaced by an authorized dealer after use of the sealant.

If the tire pressure monitor sensor becomes damaged, it will no longer function. See **Tire Pressure Monitoring System** (page 286).

Note: *The tire pressure monitoring system indicator light will illuminate when the spare tire is in use. To restore the full function of the monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on the vehicle.*

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

Have a flat serviced by an authorized dealer in order to prevent damage to the tire pressure monitoring system sensors. See **Tire Pressure Monitoring System** (page 286). Replace the spare tire with a road tire as soon as possible. During repairing or replacing of the flat tire, have the authorized dealer inspect the tire pressure monitoring system sensor for damage.

Dissimilar Spare Wheel and Tire Assembly Information

WARNING

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

If you have a dissimilar spare wheel and tire, 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 wheel and tire assembly 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.

A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels and can be one of three types:

1. **T-type mini-spare:** This spare tire begins with the letter T for tire size and may have Temporary Use Only molded in the sidewall.

2. **Full-size dissimilar spare with label on wheel:** This spare tire has a label on the wheel that states: THIS WHEEL AND TIRE ASSEMBLY FOR TEMPORARY USE ONLY.

When driving with one of the dissimilar spare tires listed above, **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 dissimilar spare tire.
- Use more than one dissimilar spare tire at a time.
- Use commercial car washing equipment.
- Try to repair the dissimilar spare tire.

Use of one of the dissimilar spare tires listed above 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.
- All-wheel driving capability (if applicable).

3. **Full-size dissimilar spare without label on wheel**

When driving with the full-size dissimilar spare wheel and tire assembly, **do not:**

- Exceed 70 mph (113 km/h).
- Use more than one dissimilar spare wheel and tire assembly at a time.
- Use commercial car washing equipment.
- Use snow chains on the end of the vehicle with the dissimilar spare wheel and tire assembly.

The usage of a full-size dissimilar spare wheel and tire assembly 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 full-size dissimilar spare wheel and tire assembly 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 full-size dissimilar spare wheel and tire assembly and seek service as soon as possible.

Tire Change Procedure

WARNINGS

When one of the front wheels is off the ground, the transmission alone will not prevent the vehicle from moving or slipping off the jack, even if the transmission is in park **(P).**

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

Never get underneath a vehicle that is supported only by a jack. If the vehicle slips off the jack, you or someone else could be seriously injured.

Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to avoid the danger of being hit when operating the jack or changing the wheel.

WARNINGS

Always use the jack provided as original equipment with your vehicle. If using a jack other than the one provided as original equipment with your vehicle, make sure the jack capacity is adequate for the vehicle weight, including any vehicle cargo or modifications.

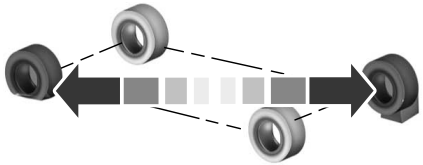
1. Park on a level surface, set the parking brake and activate the hazard flashers.
2. Place the transmission in park **(P)** and turn the engine off.

E173211

3. Lift the trunk cargo cover, and remove the wing nut that secures the spare tire by turning it counterclockwise.
4. Lift and remove the spare tire from the trunk.

5. Remove the second wing nut that secures the jack retention bracket by turning it counterclockwise. Then remove the jack kit from your vehicle.
6. Remove the jack and the wrench from the felt bag. Fold down the wrench socket used to loosen the lug nuts and to operate the jack.

Vehicle Jacking



E142551

1. Block the diagonally opposite wheel.
2. If your vehicle has wheel covers, remove them with the lug wrench tip and loosen each wheel lug nut one-half turn counterclockwise. Do not remove them until the wheel is raised off the ground.
3. The vehicle jacking points are shown here, and are depicted on the warning label on the jack.

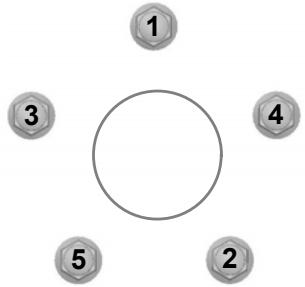
E145908

Note: *Jack at the specified locations to avoid damage to the vehicle.*

4. Small arrow-shaped marks on the sills show the location of the jacking points.

E142553

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



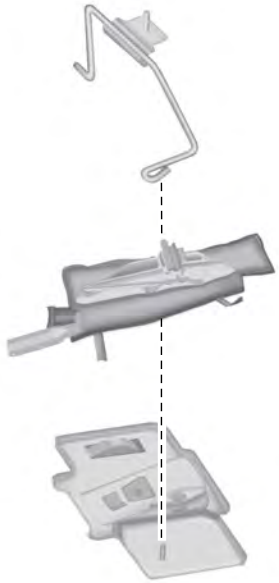
E75442

8. Remove the jack and fully tighten the lug nuts in the order shown. See **Technical Specifications** (page 294).

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

Stowing the flat tire

1. Remove the extension bolt from the exterior pocket of the felt bag.



E173212

2. Insert the straight end of the jack retention bracket through the eyelet of the angled bracket and swing the retention bracket over the jack. With the jack in place, place the end of the retention bracket over the threaded stud in the trunk floor and secure it with the plastic wing nut.
3. Screw the extension bolt onto the threaded stud of the jack retention bracket.

E173213

4. Place the flat tire in the spare tire well with the wheel facing up.
5. Safely secure the wheel by screwing the large wing nut onto the extension bolt.

Note: *If you are stowing the temporary spare tire, place the tire over the jack and secure it with the large wing nut.*

TECHNICAL SPECIFICATIONS

Wheel Lug Nut Torque Specifications

WARNING

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 wheel hub, brake drum or brake disc that contacts the wheel. Make sure that any fasteners that attach the rotor to the hub are secured so they do not interfere with the mounting surfaces of 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 your vehicle is in motion, resulting in loss of control.

Bolt size	lb-ft (Nm)*
1/2 x 20	100 (135)

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

Retighten the lug nuts to the specified torque within 100 miles (160 kilometers) after any wheel disturbance (such as tire rotation, changing a flat tire, wheel removal).

E145950

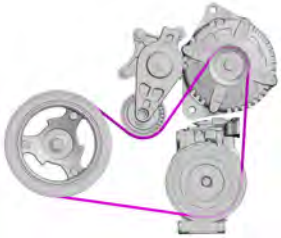
A Wheel pilot bore

Inspect the wheel pilot bore and mounting surface prior to installation. Remove any visible corrosion or loose particles.

ENGINE SPECIFICATIONS - 3.5L ECOBOOST™

Engine	3.5L Ecoboost
Cubic inches	214
Firing order	1-4-2-5-3-6
Ignition system	Coil on plug
Spark plug gap	0.030 in (0.75 mm) - 0.033 in (0.85 mm)
Compression ratio	10.0:1

Drivebelt Routing

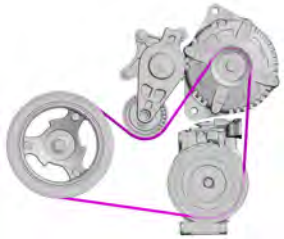


E191904

ENGINE SPECIFICATIONS - 3.7L

Engine	3.7L
Cubic inches	226
Firing order	1-4-2-5-3-6
Ignition system	Coil on plug
Spark plug gap	0.049 in (1.25 mm) - 0.053 in (1.35 mm)
Compression ratio	10.5:1

Drivebelt Routing



E191904

MOTORCRAFT PARTS - 3.5L ECOBOOST™

Component	Part Number
Air filter.	FA-1884
Battery.	BXT-65-650
Cabin air filter.	FP-68
Oil filter.	FL-500-S
Spark plugs.	SP-534
Windshield wipers.	WW-2501 (driver side) WW-2043 (passenger side)

We recommend Motorcraft replacement parts available at your Ford dealer or at fordparts.com for scheduled maintenance. These parts meet or exceed Ford Motor Company's specifications and are engineered for your vehicle. The use of other parts may impact vehicle performance, emissions and durability. Your warranty may be void for any damage related to the use of other parts.

If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

For spark plug replacement, contact an authorized dealer. Replace the spark plugs at the appropriate intervals. See **Scheduled Maintenance** (page 321).

MOTORCRAFT PARTS - 3.7L

Component	Part Number
Air filter.	FA-1884
Battery.	BXT-65-650
Cabin air filter.	FP-68
Oil filter.	FL-500-S
Spark plugs.	SP-520
Windshield wipers.	WW-2501 (driver side) WW-2043 (passenger side)

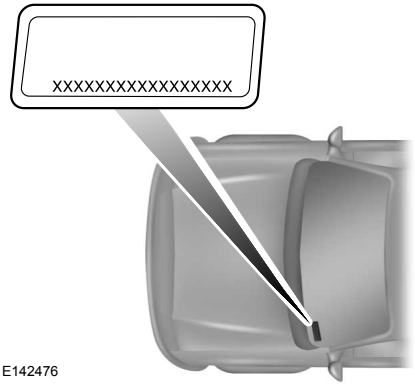
We recommend Motorcraft replacement parts available at your Ford dealer or at fordparts.com for scheduled maintenance. These parts meet or exceed Ford Motor Company's specifications and are engineered for your vehicle. The use of other parts may impact vehicle performance, emissions and durability. Your warranty may be void for any damage related to the use of other parts.

If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

For spark plug replacement, contact an authorized dealer. Replace the spark plugs at the appropriate intervals. See **Scheduled Maintenance** (page 321).

VEHICLE IDENTIFICATION NUMBER

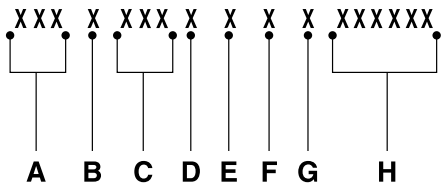
The vehicle identification number is located on the left-hand side of the instrument panel.



E142476

Please note that in the graphic, XXXX is representative of your vehicle identification number.

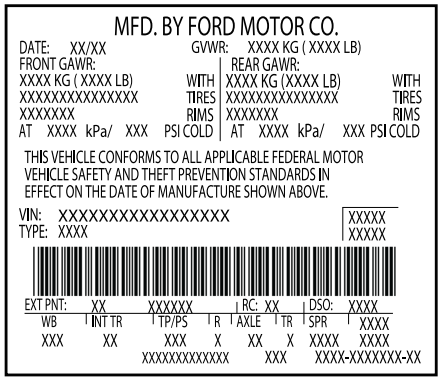
The Vehicle Identification Number contains the following information:



E142477

A	World manufacturer identifier
B	Brake system, Gross Vehicle Weight Rating, Restraint Devices and their locations
C	Make, vehicle line, series, body type
D	Engine type
E	Check digit
F	Model year
G	Assembly plant
H	Production sequence number

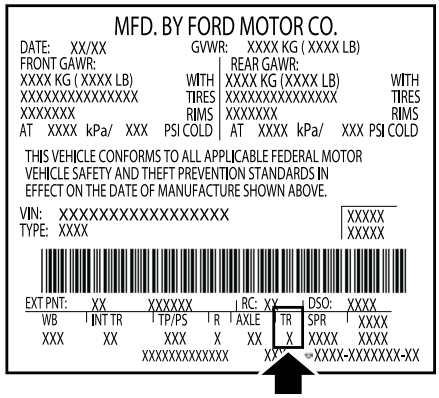
VEHICLE CERTIFICATION LABEL



E167469

The National Highway Traffic Safety Administration Regulations require that a Safety Compliance Certification Label be affixed to a vehicle and prescribe where the Safety Compliance Certification Label may be located. The Safety Compliance Certification Label shall be affixed to either the door hinge pillar, the door latch post, or the edge of the door near the door latch, next to the driver's seating position.

TRANSMISSION CODE DESIGNATION



E167814

The transmission code is on the Safety Compliance Certification Label. The following table shows the transmission code along with the transmission description.

Description	Code
Six-speed automatic transmission (6F50)	J
Six-speed automatic transmission (6F55)	C

CAPACITIES AND SPECIFICATIONS - 3.5L ECOBOOST™

Capacities

WARNING

The air conditioning refrigerant system contains refrigerant R-134a under high pressure. Opening the air conditioning refrigerant system can cause personal injury. Have the air conditioning refrigerant system serviced only by qualified personnel.

Item	Capacity
Engine oil	6.0 qt (5.7 L)
Engine coolant	11.4 qt (10.8 L)
Brake fluid	Between MIN/MAX on brake fluid reservoir
Rear axle fluid	2.4 pt (1.15 L)
Automatic transmission fluid	11.6 qt (11 L)*
Power Transfer Unit (PTU) fluid	18 fl oz (0.53 L)
Windshield washer fluid	Fill as required
Fuel tank	19.0 gal (71.9 L)
Air conditioning refrigerant	1.63 lb (0.74 kg)
Air conditioning refrigerant compressor oil	5.24 fl oz (155 ml)

*Approximate dry fill capacity. Actual amount may vary during fluid changes.

Specifications

Materials

Name	Specification
Recommended motor oil (U.S.): Motorcraft SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-QSP	WSS-M2C946-A
Recommended Motor oil (Canada): Motorcraft SAE 5W-30 Super Premium Motor Oil CXO-5W30-LSP12	WSS-M2C946-A
Recommended motor oil (Mexico): Motorcraft SAE 5W-30 Synthetic Motor Oil MXO-5W30-QSP	WSS-M2C946-A
Optional motor oil (U.S. and Mexico): Motorcraft SAE 5W-30 Full Synthetic Motor Oil XO-5W30-QFS	WSS-M2C946-A
Optional Motor oil (Canada): Motorcraft SAE 5W-30 Synthetic Motor Oil CXO-5W30-LFS12	WSS-M2C946-A
Engine coolant (U.S. and Mexico): Motorcraft Orange Antifreeze/Coolant Prediluted VC-3DIL-B	WSS-M97B44-D2
Engine coolant (Canada): Motorcraft Orange Antifreeze/Coolant Prediluted CVC-3DIL-B	WSS-M97B44-D2

Name	Specification
Brake fluid: Motorcraft DOT 4 Low Viscosity (LV) High Performance Motor Vehicle Brake Fluid PM-20	WSS-M6C65-A2
Rear axle fluid (U.S. and Mexico): Motorcraft SAE 80W-90 Premium Rear Axle Lubricant XY-80W90-QL	WSP-M2C197-A
Rear axle fluid (Canada): Motorcraft SAE 80W-90 Premium Rear Axle Lubricant CXY-80W90-1L	WSP-M2C197-A
Automatic transmission fluid (U.S. and Mexico): Motorcraft MERCON LV Automatic Transmission Fluid XT-10-QLVC	WSS-M2C938-A MERCON LV
Automatic transmission fluid (Canada): Motorcraft MERCON LV Automatic Transmission Fluid CXT-10-LV12	WSS-M2C938-A MERCON LV
Power Transfer Unit (PTU) fluid (U.S. and Mexico): Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant XY-75W140-QL	WSL-M2C192-A
Power Transfer Unit (PTU) fluid (Canada): Motorcraft SAE 75W-140 Synthetic Rear Axle Lubricant CXY-75W140-1L	WSL-M2C192-A
Windshield washer fluid (U.S. and Mexico): Motorcraft Premium Windshield Wash Concentrate with Bitterant ZC-32-B2	WSS-M14P19-A

Name	Specification
Windshield washer fluid (Canada): Motorcraft Premium Quality Windshield Washer Fluid CXC-37-(A, B, D, F)	WSS-M14P19-A
A/C refrigerant (U.S.): Motorcraft R-134a Refrigerant YN-19	WSH-M17B19-A
A/C refrigerant (Canada): Motorcraft R-134a Refrigerant CYN-16-R	WSH-M17B19-A
A/C refrigerant (Mexico): Motorcraft R-134a Refrigerant MYN-19	WSH-M17B19-A
A/C refrigerant compressor oil: Motorcraft PAG Refrigerant Compressor Oil YN-12-D	WSH-M1C231-B
Multi-purpose grease: Motorcraft Multi-Purpose Grease Spray XL-5	ESB-M1C93-B

Name	Specification
Lock cylinders (U.S.): Penetrating and Lock Lubricant XL-1	--
Lock cylinders (Canada): Penetrating Fluid CXC-51-A	--
Lock cylinders (Mexico): Penetrating and Lock Lubricant MXL-1	--

If you use oil and fluids that do not meet the defined specification and viscosity grade, this may lead to:

- Component damage which is not covered by the vehicle warranty.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Degraded brake performance.

We recommend Motorcraft motor oil for your vehicle. If Motorcraft oil is not available, use motor oils of the recommended viscosity grade that meet API SN requirements and display the API Certification Mark for gasoline engines. Do not use oil labeled with API SN service category unless the label also displays the API certification mark.

E142732

An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of the International Lubricants Specification Advisory Council (ILSAC).

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that may not be covered by your vehicle warranty.

Note: *Ford recommends using DOT 4 Low Viscosity (LV) High Performance Brake Fluid or equivalent meeting WSS-M6C65-A2. Use of any fluid other than the recommended fluid may cause degraded brake performance and not meet the Ford performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials may result in brake system damage and possible failure.*

Note: *Automatic transmissions that require MERCON LV transmission fluid should only use MERCON LV transmission fluid. The use of any other fluid may cause transmission damage.*

CAPACITIES AND SPECIFICATIONS - 3.7L

Capacities

WARNING

The air conditioning refrigerant system contains refrigerant R-134a under high pressure. Opening the air conditioning refrigerant system can cause personal injury. Have the air conditioning refrigerant system serviced only by qualified personnel.

Item	Capacity
Engine oil	6.0 qt (5.7 L)
Engine coolant	11.1 qt (10.5 L)
Brake fluid	Between MIN/MAX on brake fluid reservoir
Rear axle fluid (All Wheel Drive)	2.4 pt (1.15 L)
Automatic transmission fluid	10.9 qt (10.3 L)*

Item	Capacity
Power Transfer Unit (PTU) fluid (All Wheel Drive)	18 fl oz (0.53 L)
Windshield washer fluid	Fill as required
Fuel tank	19.0 gal (71.9 L)
Air conditioning refrigerant	1.43 lb (0.65 kg)
Air conditioning refrigerant compressor oil	5.24 fl oz (155 ml)

*Approximate dry fill capacity. Actual amount may vary during fluid changes.

Specifications

Materials

Name	Specification
Recommended motor oil (U.S.): Motorcraft® SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP	WSS-M2C945-A
Recommended Motor oil (Canada): Motorcraft® SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12	WSS-M2C945-A
Recommended motor oil (Mexico): Motorcraft® SAE 5W-20 Synthetic Motor Oil MXO-5W20-QSP	WSS-M2C945-A
Optional motor oil (U.S. and Mexico):	WSS-M2C945-A

Name	Specification
Motorcraft® SAE 5W-20 Full Synthetic Motor Oil XO-5W20-QFS	
Optional Motor oil (Canada): Motorcraft® SAE 5W-20 Synthetic Motor Oil CXO-5W20-LFS12	WSS-M2C945-A
Engine coolant (U.S. and Mexico): Motorcraft® Orange Antifreeze/Coolant Prediluted VC-3DIL-B	WSS-M97B44-D2
Engine coolant (Canada): Motorcraft® Orange Antifreeze/Coolant Prediluted CVC-3DIL-B	WSS-M97B44-D2
Brake fluid: Motorcraft® DOT 4 Low Viscosity (LV) High Performance Motor Vehicle Brake Fluid PM-20	WSS-M6C65-A2
Rear axle fluid (U.S. and Mexico): Motorcraft® SAE 80W-90 Premium Rear Axle Lubricant XY-80W90-QL	WSP-M2C197-A
Rear axle fluid (Canada): Motorcraft® SAE 80W-90 Premium Rear Axle Lubricant CXY-80W90-1L	WSP-M2C197-A
Automatic transmission fluid (U.S. and Mexico): Motorcraft® MERCON LV Automatic Transmission Fluid XT-10-QLVC	WSS-M2C938-A MERCON LV

Name	Specification
Automatic transmission fluid (Canada): Motorcraft® MERCON LV Automatic Transmission Fluid CXT-10-LV12	WSS-M2C938-A MERCON LV
Power Transfer Unit (PTU) fluid (U.S. and Mexico): Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant XY-75W140-QL	WSL-M2C192-A
Power Transfer Unit (PTU) fluid (Canada): Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant CXY-75W140-1L	WSL-M2C192-A
Windshield washer fluid (U.S. and Mexico): Motorcraft® Premium Windshield Wash Concentrate with Bitterant ZC-32-B2	WSS-M14P19-A
Windshield washer fluid (Canada): Motorcraft® Premium Quality Windshield Washer Fluid CXC-37-(A, B, D, F)	WSS-M14P19-A
A/C refrigerant (U.S.): Motorcraft® R-134a Refrigerant YN-19	WSH-M17B19-A
A/C refrigerant (Canada): Motorcraft® R-134a Refrigerant CYN-16-R	WSH-M17B19-A
A/C refrigerant (Mexico): Motorcraft® R-134a Refrigerant MYN-19	WSH-M17B19-A

Name	Specification
A/C refrigerant compressor oil: Motorcraft® PAG Refrigerant Compressor Oil YN-12-D	WSH-M1C231-B
Multi-purpose grease: Motorcraft® Multi-Purpose Grease Spray XL-5	ESB-M1C93-B
Lock cylinders (U.S.): Penetrating and Lock Lubricant XL-1	--
Lock cylinders (Canada): Penetrating Fluid CXC-51-A	--
Lock cylinders (Mexico): Penetrating and Lock Lubricant MXL-1	--

If you use oil and fluids that do not meet the defined specification and viscosity grade, this may lead to:

- Component damage which is not covered by the vehicle warranty.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Degraded brake performance.

We recommend Motorcraft motor oil for your vehicle. If Motorcraft oil is not available, use motor oils of the recommended viscosity grade that meet API SN requirements and display the API Certification Mark for gasoline engines. Do not use oil labeled with API SN service category unless the label also displays the API certification mark.

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An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of the International Lubricants Specification Advisory Council (ILSAC).

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that may not be covered by your vehicle warranty.

Note: *Ford recommends using DOT 4 Low Viscosity (LV) High Performance Brake Fluid or equivalent meeting WSS-M6C65-A2. Use of any fluid other than the recommended fluid may cause degraded brake performance and not meet the Ford performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials may result in brake system damage and possible failure.*

Note: *Automatic transmissions that require MERCON LV transmission fluid should only use MERCON LV transmission fluid. The use of any other fluid may cause transmission damage.*

GENERAL INFORMATION

Radio Frequencies and Reception Factors

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: 87.9-107.7, 107.9 MHz

Radio Reception Factors	
Distance and strength	The further you travel from an AM or FM station, the weaker the signal and the weaker the reception.
Terrain	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with the reception.
Station overload	When you pass a ground-based broadcast repeating tower, a stronger signal may overtake a weaker one and result in the audio system muting.

CD and CD Player Information

Note: *CD units play commercially pressed 4.75-inch (12 centimeter) 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.*

Note: *Do not insert CDs with homemade paper (adhesive) labels into the CD player as the label may peel and cause the CD to become jammed. You should use a permanent felt tip marker rather than adhesive labels on your homemade CDs. Ballpoint pens may damage CDs. Please contact an authorized dealer for further information.*

Note: *Do not use any irregularly shaped discs or discs with a scratch protection film attached.*

Always handle discs by their edges only. Clean the disc with an approved CD cleaner only. Wipe it from the center of the disc toward the edge. Do not clean in a circular motion.

Do not expose discs to direct sunlight or heat sources for extended periods.

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MP3 and WMA Track and Folder Structure

Audio systems capable of recognizing and playing MP3 and WMA individual tracks and folder structures work as follows:

- There are two different modes for MP3 and WMA disc playback: MP3 and WMA track mode (system default) and MP3 and WMA folder mode.
- MP3 and WMA track mode ignores any folder structure on the MP3 and WMA disc. The player numbers each MP3 and WMA track on the disc (noted by the MP3 or WMA file extension) from T001 to a maximum of T255. The maximum number of playable MP3 and WMA files may be less depending on the structure of the CD and exact model of radio present.
- MP3 and WMA folder mode represents a folder structure consisting of one level of folders. The CD player numbers all MP3 and WMA tracks on the disc (noted by the MP3 or WMA file extension) and all folders containing MP3 and WMA files, from F001 (folder) T001 (track) to F253 T255.
- Creating discs with only one level of folders helps with navigation through the disc files.

If you are burning your own MP3 and WMA discs, it is important to understand how the system reads the structures you create. While various files may be present (files with extensions other than MP3 and WMA), only files with the MP3 and WMA extension are played; other files are ignored by the system. This enables you to use the same MP3 and WMA disc for a variety of tasks on your work computer, home computer and your in-vehicle system.

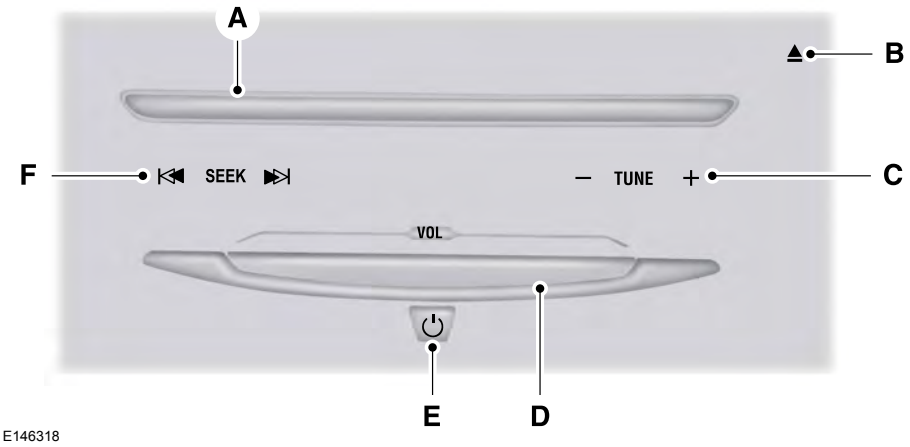
In track mode, the system displays and plays the structure as if it were only one level deep (all MP3 and WMA files play, regardless of being in a specific folder). In folder mode, the system only plays the MP3 and WMA files in the current folder.

AUDIO UNIT - VEHICLES WITH: PREMIUM AM/FM/CD

WARNING

Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

Note: *The touchsceen system controls most of the audio features. See your MyLincoln Touch information.*



A **CD slot:** Insert a CD.

B **Eject:** Press to eject a CD.

C **TUNE:** Press to search manually through the radio frequency band. The system stops at the first station it finds in that direction. In SIRIUS mode, the system selects the previous or next channel. If you select a specific category (Jazz, Rock, News, etc.), turn the TUNE control to find the previous or next channel in the selected category.

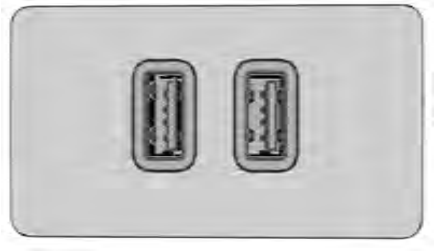
D **Volume:** Press to adjust the volume.

E **Power:** Press to switch the system on and off.

F **Seek/Fast Forward/Reverse:** Press to go to the previous or next track or available radio station. Press and hold to either reverse or fast forward through the current track or to quickly reverse or advance through the radio bands in individual increments.

MEDIA HUB

The media hub may be located on the instrument panel or center console.



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See your SYNC information.

For a complete listing of the accessories that are available for your vehicle, please contact your authorized dealer or visit our online store at:

Web Address (United States)
www.Accessories.Lincoln.com

Web Address (Canada)
www.LincolnCanada.com

Lincoln Motor Company will repair or replace any properly authorized dealer-installed Lincoln Original Accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessories.

Lincoln Motor Company will warrant your vehicle through the warranty that provides the greatest benefit:

- 24 months, unlimited mileage.
- The remainder of your new vehicle limited warranty.

Contact an authorized dealer for details and a copy of the warranty.

Exterior style

- Moonroof deflectors.
- Side-window deflectors.
- Splash guards.

Interior style

- All-weather floor mats.
- Carpeted floor mats.
- Sport pedals.

Lifestyle

- Ash cup (smoker's packages).
- Car cover*.
- Cargo area protector.
- Cargo organization and management.

Peace of mind

- Locking fuel plug.
- Wheel locks.
- Remote start.
- Vehicle security.

*The accessory manufacturer designs, develops and therefore warrants Lincoln Licensed Accessories, and does not design or test these accessories to Lincoln Motor Company engineering requirements. Contact an authorized Lincoln dealer for the manufacturer's limited warranty details and request a copy of the Lincoln Licensed Accessories product limited warranty from the accessory manufacturer.

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 an authorized dealer for specific weight information.
- The Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulate the use of mobile communications systems that are equipped with radio transmitters, for example, two-way radios, telephones and theft alarms. Any such equipment installed in your vehicle should comply with the Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulations and should be installed only by an authorized dealer.
- Mobile communications systems may harm the operation of your vehicle, particularly if their manufacturer did not design them specifically for automotive use.
- If you or an authorized Lincoln dealer add any non-Lincoln electrical or electronic accessories or components to your vehicle, you may adversely affect battery performance and durability. In addition, you may also adversely affect the performance of other electrical systems in the vehicle.

PROTECT YOURSELF FROM THE RISING COST OF VEHICLE REPAIRS WITH A LINCOLN EXTENDED SERVICE PLAN.

EXTENDED SERVICE PLANS (U.S. Only)

Lincoln owners have discovered the powerful protection of Lincoln Extended Service Plan. It is the only extended service plan backed by Lincoln Motor Company, and provides peace of mind protection beyond the New Vehicle Limited Warranty coverage.

Lincoln ESP Can Quickly Pay for Itself

One service bill – the cost of parts and labor – can easily exceed the price of your Lincoln Extended Service Plan. With Lincoln ESP, you minimize your risk for unexpected repair bills and rising repair costs.

Up to 1000+ Covered Vehicle Components

There are four Extended Service Plans with different levels of coverage. Ask your authorized dealer for details.

1. PremiumCARE - Our most comprehensive coverage. With over 1000 covered components, this plan is so complete that we generally only discuss what's not covered.
2. ExtraCARE - Covers 113 components, and includes many high-tech items.
3. BaseCARE - Covers 84 components.
4. PowertrainCARE - Covers 29 critical components.

Lincoln Extended Service Plan is honored by all authorized Lincoln and Ford dealers in the United States, Canada and Mexico. It is the only extended service plan authorized and backed by Lincoln Motor Company.

That means you get:

- Reliable, quality service at any Lincoln or Ford dealership.
- Repairs performed by factory trained technicians, using genuine parts.

Rental Car Reimbursement

1st day Rental Benefit

You take advantage of replacement transportation if your vehicle is at your authorized dealer for same day covered repairs.

Extended Rental Benefits

If your vehicle is kept overnight for covered repairs, you are eligible for rental car coverage, including bumper to bumper warranty repairs, and Field Service Actions.

Roadside Assistance

Exclusive 24/7 roadside assistance, including:

- Towing, flat-tire change and battery jump starts.
- Out of fuel and lock-out assistance.
- Travel expense reimbursement for lodging, meals and rental car.
- Destination assistance for taxi, shuttle, rental car coverage and emergency transportation.

Transferable Coverage

If you sell your vehicle before your Lincoln Extended Service Plan coverage expires, you can transfer any remaining coverage to the new owner. Whenever you sell your vehicle, prospective buyers may have a higher degree of confidence that vehicle was properly maintained with Lincoln ESP, thereby improving resale value.

Avoid the Rising Cost of Properly Maintaining Your Vehicle!

Lincoln Extended Service Plan also offers a Premium Maintenance Plan that covers all scheduled maintenance, and select items that routinely wear out. The coverage is prepaid, so you never have to worry about affording your vehicle maintenance. It covers regular checkups, routine inspections, preventive care and replacement of select items that require periodic attention for normal wear:

- Windshield wiper blades.
- Spark plugs.
- The clutch disc.
- Brake pads and linings.
- Shock absorbers and struts.
- Engine cooling hoses, clamps and o-rings.
- Engine belts.
- Diesel exhaust fluid replenishment.

Interest Free Finance Options Available

Take advantage of our interest free installment payment plan. Just a 10% down payment will provide you with an affordable, no interest, no fee payment program allowing you all the security and benefits Lincoln ESP has to offer while paying over time. You are pre-approved with no credit checks, no hassles! To learn more, call our Lincoln ESP specialists at 800-367-3377.

Complete the information below and mail to:

Ford ESP
P.O. Box 321067
Detroit, MI 48232

EXTENDED SERVICE PLANS (CANADA ONLY)

You can get more protection for your vehicle by purchasing a Lincoln Extended Service Plan. Lincoln Extended Service Plan is the only service contract backed by Lincoln Motor Company of Canada, Limited. Depending on the plan you purchase, Lincoln Extended Service Plan provides benefits such as:

- Rental reimbursement.
- Coverage for certain maintenance and wear items.
- Protection against repair costs after your New Vehicle Limited Warranty Coverage expires.
- Roadside Assistance benefits.

There are several Lincoln Extended Service Plans available in various time, distance and deductible combinations. Each plan is tailored to fit your own driving needs, including reimbursement for towing and rental. When you purchase Lincoln Extended Service Plan, you receive added peace-of-mind protection throughout Canada, the United States and Mexico, provided by a network of participating authorized Lincoln Motor Company dealers.

Note: *Repairs performed outside of Canada, the United States and Mexico are not eligible for Lincoln Extended Service Plan coverage.*

This information is subject to change. For more information, visit your local Lincoln of Canada dealer or www.Lincoln.ca to find the Lincoln Extended Service Plan that is right for you.

GENERAL MAINTENANCE INFORMATION

Why Maintain Your Vehicle?

Carefully following the maintenance schedule helps protect against major repair expenses resulting from neglect or inadequate maintenance and may help to increase the value of your vehicle when you sell or trade it. Keep all receipts for completed maintenance with your vehicle.

We have established regular maintenance intervals for your vehicle based upon rigorous testing. It is important that you have your vehicle serviced at the proper times. These intervals serve two purposes; one is to maintain the reliability of your vehicle and the second is to keep your cost of owning your vehicle down.

It is your responsibility to have all scheduled maintenance performed and to make sure that the materials used meet the specifications identified in this owner's manual. See **Capacities and Specifications** (page 296).

Failure to perform scheduled maintenance invalidates warranty coverage on parts affected by the lack of maintenance.

Why Maintain Your Vehicle at Your Dealership?

Factory-Trained Technicians

Service technicians participate in extensive factory-sponsored certification training to help them become experts on the operation of your vehicle. Ask your dealership about the training and certification their technicians have received.

Genuine Ford and Motorcraft® Replacement Parts

Dealerships stock Ford, Motorcraft and Ford-authorized branded re-manufactured replacement parts. These parts meet or exceed our specifications. Parts installed at your dealership carry a nationwide 24-month or unlimited mile (kilometer) parts and labor limited warranty.

If you do not use Ford authorized parts they may not meet our specifications and depending on the part, it could affect emissions compliance.

Convenience

Many dealerships have extended evening and Saturday hours to make your service visit more convenient and they offer one stop shopping. They can perform any services that are required on your vehicle, from general maintenance to collision repairs.

Note: *Not all dealers have extended hours or body shops. Please contact your dealer for details.*

Protecting Your Investment

Maintenance is an investment that pays dividends in the form of improved reliability, durability and resale value. To maintain the proper performance of your vehicle and its emission control systems, make sure you have scheduled maintenance performed at the designated intervals.

Your vehicle is equipped with the Intelligent Oil-Life Monitor system, which displays a message in the information display at the proper oil change interval. This interval may be up to one year or 10000 miles (16000 kilometers).

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When the oil change message appears in the information display, it is time for an oil change. Make sure you perform the oil change within two weeks or 500 miles (800 kilometers) of the message appearing. Make sure you reset the Intelligent Oil-Life Monitor after each oil change. See (page 89).

If your information display resets prematurely or becomes inoperative, you should perform the oil change interval at six months or 5000 miles (8000 kilometers) from your last oil change. Never exceed one year or 10000 miles (16000 kilometers) between oil change intervals.

Your vehicle is very sophisticated and built with multiple, complex, performance systems. Every manufacturer develops these systems using different specifications and performance features. That is why it is important to rely upon your dealership to properly diagnose and repair your vehicle.

Ford Motor Company has recommended maintenance intervals for various parts and component systems based upon engineering testing. Ford Motor Company relies upon this testing to determine the most appropriate mileage for replacement of oils and fluids to protect your vehicle at the lowest overall cost to you and recommends against maintenance schedules that deviate from the scheduled maintenance information.

We strongly recommend the use of only genuine Ford, Motorcraft or Ford-authorized re-manufactured replacement parts engineered for your vehicle.

Additives and Chemicals

This owner's manual and the Ford Workshop Manual list the recommended additives and chemicals for your vehicle. We do not recommend using chemicals or additives not approved by us as part of your vehicle's normal maintenance. Please consult your warranty information.

Oils, Fluids and Flushing

In many cases, fluid discoloration is a normal operating characteristic and, by itself, does not necessarily indicate a concern or that the fluid needs to be changed. However, a qualified expert, such as the factory-trained technicians at your dealership, should inspect discolored fluids that also show signs of overheating or foreign material contamination immediately.

Make sure to change your vehicle's oils and fluids at the specified intervals or in conjunction with a repair. Flushing is a viable way to change fluid for many vehicle sub-systems during scheduled maintenance. It is critical that systems are flushed only with new fluid that is the same as that required to fill and operate the system or using a Ford-approved flushing chemical.

Owner Checks and Services

Make sure you perform the following basic maintenance checks and inspections every month or at six-month intervals.

Check every month
Engine oil level.
Function of all interior and exterior lights.
Tires (including spare) for wear and proper pressure.
Windshield washer fluid level.

Check every six months
Battery connections. Clean if necessary.
Body and door drain holes for obstructions. Clean if necessary.
Cooling system fluid level and coolant strength.
Door weatherstrips for wear. Lubricate if necessary.
Hinges, latches and outside locks for proper operation. Lubricate if necessary.
Parking brake for proper operation.
Safety belts and seat latches for wear and function.
Safety warning lamps (brake, ABS, airbag and safety belt) for operation.
Washer spray and wiper operation. Clean or replace blades as necessary.

Multi-Point Inspection

In order to keep your vehicle running right, it is important to have the systems on your vehicle checked regularly. This can help identify potential issues and prevent major problems. We recommend having the following multi-point inspection performed at every scheduled maintenance interval to help make sure your vehicle keeps running great.

Multi-Point inspection	
Accessory drive belt(s)	Hazard warning system operation
Battery performance	Horn operation
Engine air filter	Radiator, cooler, heater and air conditioning hoses
Exhaust system	Suspension components for leaks or damage
Exterior lamps operation	Steering and linkage
Fluid levels*; fill if necessary	Tires (including spare) for wear and proper pressure**
For oil and fluid leaks	Windshield for cracks, chips or pits
Half-shaft dust boots	Washer spray and wiper operation

* Brake, coolant recovery reservoir, automatic transmission and window washer

**If your vehicle is equipped with a temporary mobility kit, check the tire sealant expiration Use By date on the canister. Replace as needed.

Be sure to ask your dealership service advisor or technician about the multi-point vehicle inspection. It is a comprehensive way to perform a thorough inspection of your vehicle. Your checklist gives you immediate feedback on the overall condition of your vehicle.

NORMAL SCHEDULED MAINTENANCE

Intelligent Oil-Life Monitor™

Your vehicle is equipped with an Intelligent Oil-Life Monitor that determines when you should change the engine oil based on how your vehicle is used. By using several important factors in its calculations, the monitor helps reduce the cost of owning your vehicle and reduces environmental waste at the same time.

This means you do not have to remember to change the oil on a mileage-based schedule. Your vehicle lets you know when an oil change is due by displaying a message in the information display.

The following table provides examples of vehicle use and its impact on oil change intervals. It is a guideline only. Actual oil change intervals depend on several factors and generally decrease with severity of use.

When to expect the message prompting you to change your oil	
Interval	**Vehicle use and example**
7500-10000 miles (12000-16000 km)	**Normal**
	Normal commuting with highway driving No, or moderate, load or towing Flat to moderately hilly roads No extended idling
5000-7499 miles (8000-11999 km)	**Severe**
	Moderate to heavy load or towing Mountainous or off-road conditions Extended idling

When to expect the message prompting you to change your oil	
Interval	**Vehicle use and example**
	Extended hot or cold operation
3000-4999 miles (4800-7999 km)	**Extreme**
	Maximum load or towing Extreme hot or cold operation

Maintenance Intervals

At every oil change interval as indicated by the information display*
Change engine oil and filter.**
Rotate the tires.
Perform a multi-point inspection (recommended).
Inspect the automatic transmission fluid level. Consult your dealer for requirements.
Inspect the brake pads, rotors, hoses and parking brake.
Inspect the engine cooling system strength and hoses.
Inspect the exhaust system and heat shields.
Inspect the rear axle and U-joints.
Inspect the half-shaft boots.

At every oil change interval as indicated by the information display*
Inspect the steering linkage, ball joints, suspension, tie-rod ends, driveshaft and U-joints.
Inspect the tires, tire wear and measure the tread depth.
Inspect the wheels and related components for abnormal noise, wear, looseness or drag.

* Do not exceed one year or 10000 miles (16000 kilometers) between service intervals.

** Reset the Intelligent Oil-Life Monitor after engine oil and filter changes. See **Engine Oil Check** (page 245).

Other maintenance items [1]	
Every 20000 miles (32000 km)	Replace cabin air filter.
Every 30000 miles (48000 km)	Replace engine air filter.
At 100000 miles (160000 km)	Change engine coolant. [2]
Every 100000 miles (160000 km)	Replace spark plugs.
	Inspect accessory drive belt(s). [3]

Other maintenance items [1]	
Every 150000 miles (240000 km)	Change automatic transmission fluid.
	Replace accessory drive belt(s). [4]

[1] Perform these maintenance items within 3000 miles (4800 kilometers) of the last engine oil and filter change. Do not exceed the designated distance for the interval.

[2] Initial replacement at six years or 100000 miles (160000 kilometers), then every three years or 50000 miles (80000 kilometers).

[3] After initial inspection, inspect every other oil change until replaced.

[4] If not replaced within the last 100000 miles (160000 kilometers).

SPECIAL OPERATING CONDITIONS SCHEDULED MAINTENANCE

If you operate your vehicle **primarily** in any of the following conditions, you need to perform extra maintenance, as indicated. If you operate your vehicle **occasionally** under any of these conditions, it is not necessary to perform the extra maintenance. For specific recommendations, see your dealership service advisor or technician.

Perform the services shown in the following tables when specified or within 3,000 mi (4,800 km) of the message appearing in the information display prompting you to change your oil.

- **Example 1**: The message comes on at 28,751 mi (46,270 km). Perform the 30,000 mi (48,000 km) automatic transmission fluid replacement.
- **Example 2**: The message has **not** come on, but the odometer reads 30,000 mi (48,000 km) (for example, the Intelligent Oil-Life Monitor was reset at 25,000 mi (40,000 km)). Perform the engine air filter replacement.

Towing a trailer or using a car-top carrier	
As required	Change engine oil and filter as indicated by information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Inspect and lubricate U-joints.
Every 30,000 mi (48,000 km)	Change PTU and rear axle fluid (AWD only). See axle and PTU maintenance items under **Exceptions**.
	Change automatic transmission fluid.
Every 60,000 mi (96,000 km)	Replace spark plugs.

Extensive idling or low-speed driving for long distances, as in heavy commercial use (such as delivery, taxi, patrol car or livery)	
As required	Change engine oil and filter as indicated by information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Replace cabin air filter.
	Replace engine air filter.
Every 30,000 mi (48,000 km)	Change automatic transmission fluid.
	Change PTU and rear axle fluid (AWD only). See axle and PTU maintenance items under **Exceptions**.
Every 60,000 mi (96,000 km)	Replace spark plugs.

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Operating in dusty or sandy conditions (such as unpaved or dusty roads)	
Inspect frequently, service as required	Replace cabin air filter.
	Replace engine air filter.
Every 5,000 mi (8,000 km)	Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
	Rotate tires, inspect tires for wear and measure tread depth.
Every 5,000 mi (8,000 km) or six months	Change engine oil and filter.*
	Perform multi-point inspection.
Every 30,000 mi (48,000 km)	Change automatic transmission fluid.
	Change PTU and rear axle fluid (AWD only). See axle and PTU maintenance items under **Exceptions**.

*Reset your Intelligent Oil-Life Monitor after engine oil and filter changes.

Exclusive use of E85 (flex fuel vehicles only)	
Every oil change	If ran exclusively on E85, fill the fuel tank full with regular unleaded fuel.

Exceptions

There are several exceptions to the Normal Schedule:

Axle and PTU Maintenance

The Power Transfer Unit (PTU) and rear axle (AWD only) in your vehicle does not require any normal scheduled maintenance. The PTU lube will be more likely to require a fluid change if the vehicle has experienced extended periods of extreme/severe duty cycle driving. Changing or checking the PTU lubricant is not necessary unless the unit has been submerged in water or shows signs of leakage. Contact your authorized dealer for service.

California Fuel Filter Replacement

If you register your vehicle in California, the California Air Resources Board has determined that the failure to perform this maintenance item does not nullify the emission warranty or limit recall liability before the completion of your vehicle's useful life. Ford Motor Company, however, urges you to have all recommended maintenance services performed at the specified intervals and to record all vehicle service.

Hot Climate Oil Change Intervals

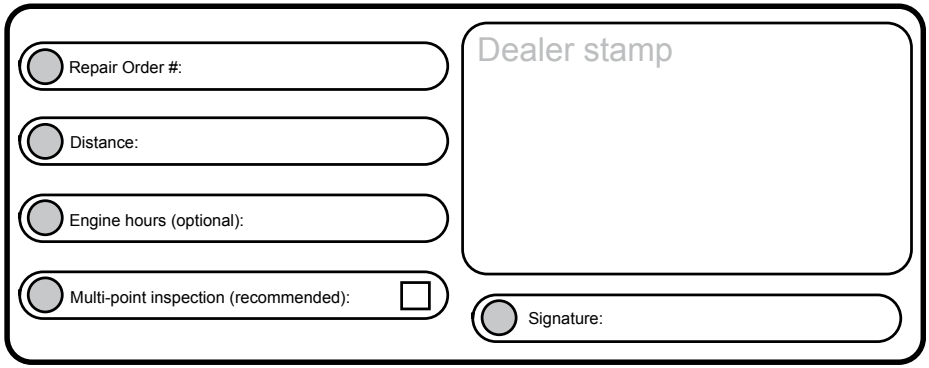
Vehicles operating in the Middle East, North Africa, Sub-Saharan Africa or locations with similar climates using an American Petroleum Institute (API) Certified for Gasoline Engines (Certification mark) oil of SM or SN quality, the normal oil change interval is 3,000 mi (4,800 km).

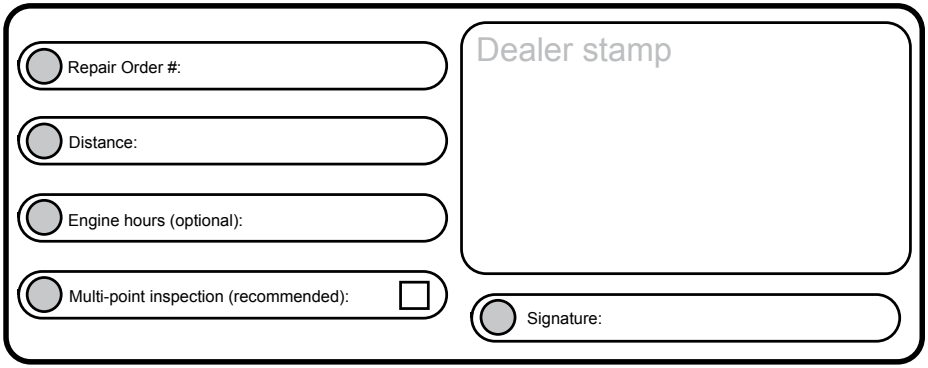
If the available API SM or SN oils are not available, then the oil change interval is 1,800 mi (2,900 km).

Engine Air Filter and Cabin Air Filter Replacement

The life of the engine air filter and cabin air filter is dependent on exposure to dusty and dirty conditions. Vehicles operated in these conditions require frequent inspection and replacement of the engine air filter and cabin air filter.

SCHEDULED MAINTENANCE RECORD

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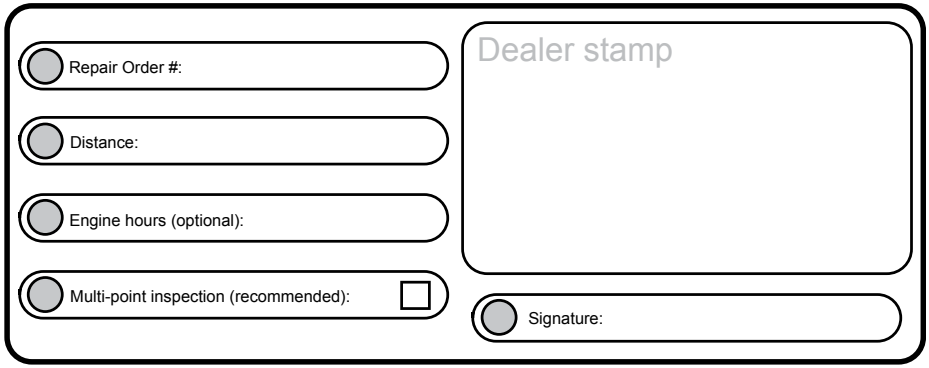
Distance:
Engine hours (optional):
Multi-point inspection (recommended):
Dealer stamp
Signature: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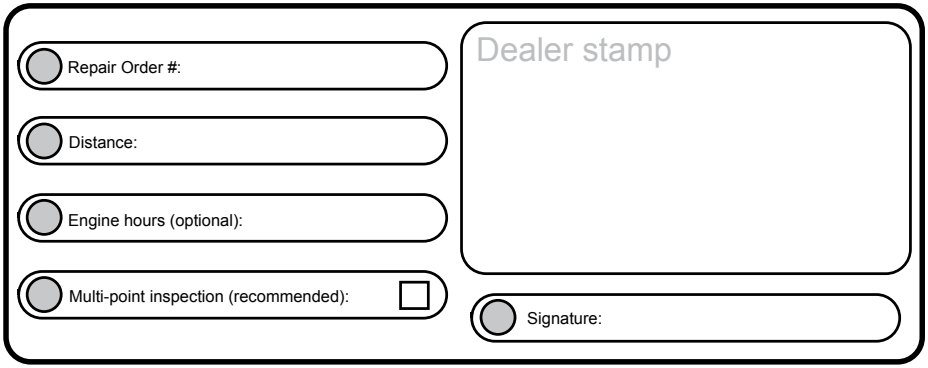
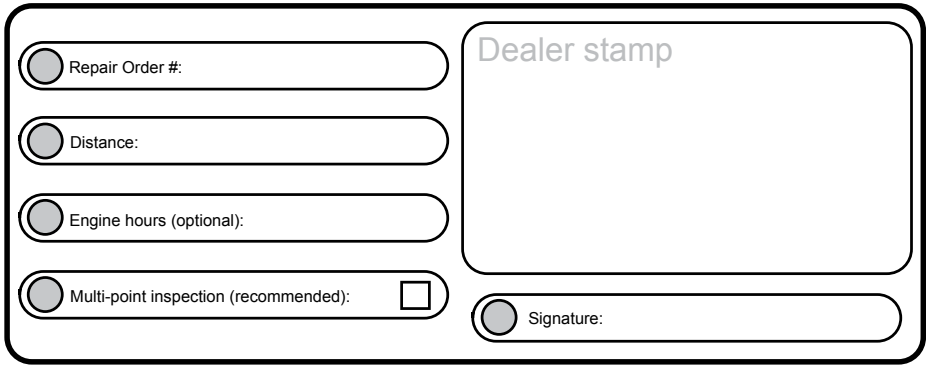

Repair Order #:
Distance:
Engine hours (optional):
Multi-point inspection (recommended):
Dealer stamp
Signature: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Multi-point inspection (recommended):
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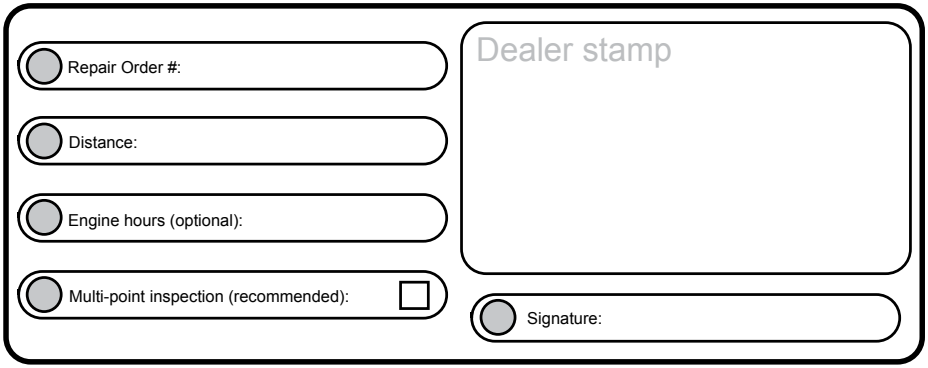
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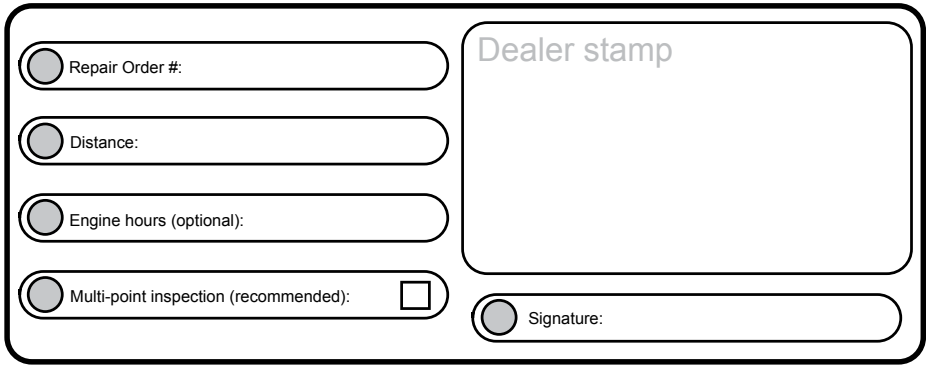
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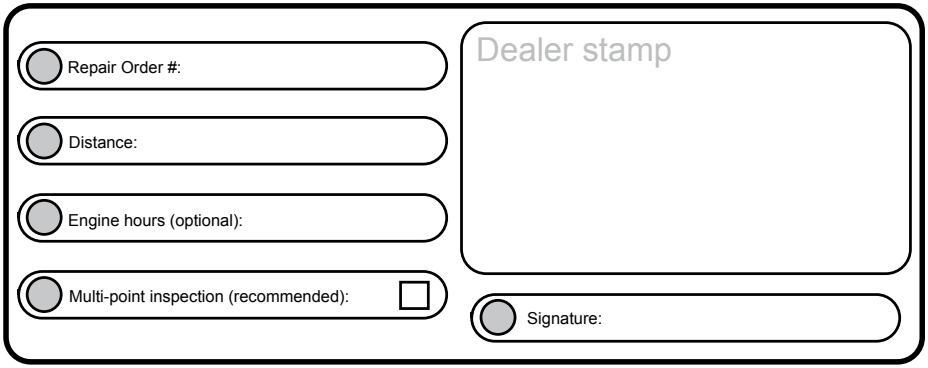
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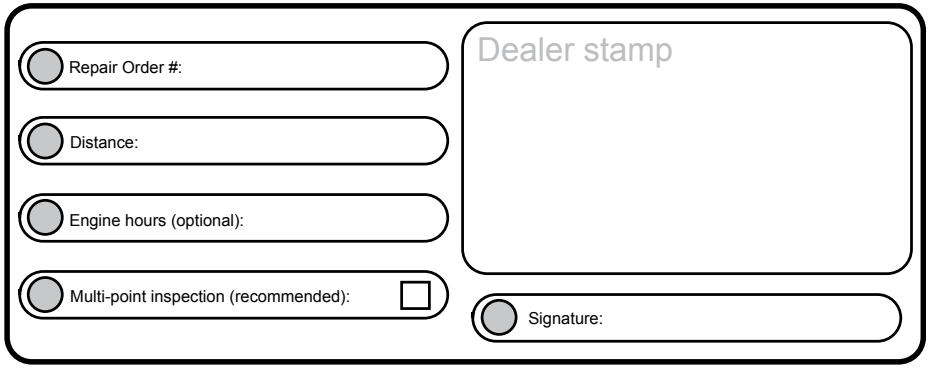
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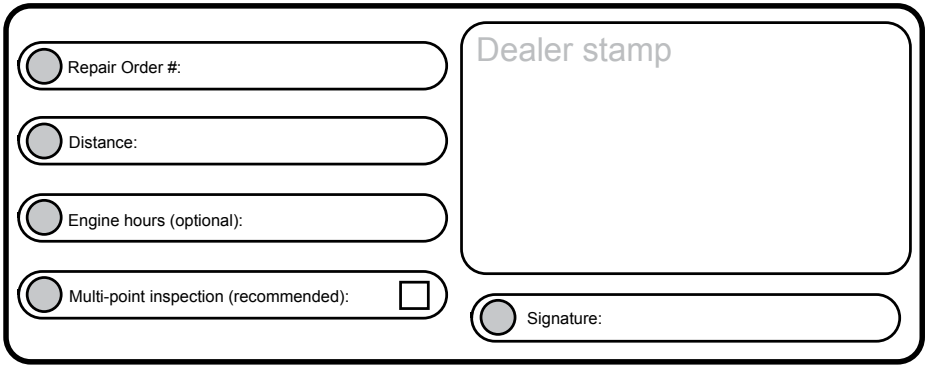
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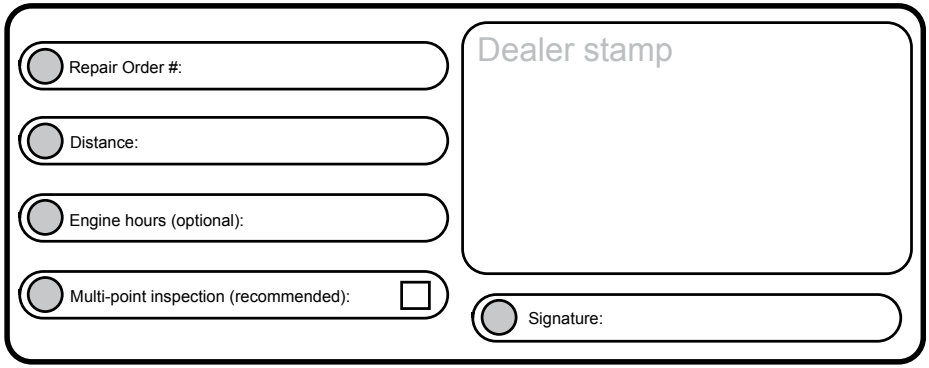
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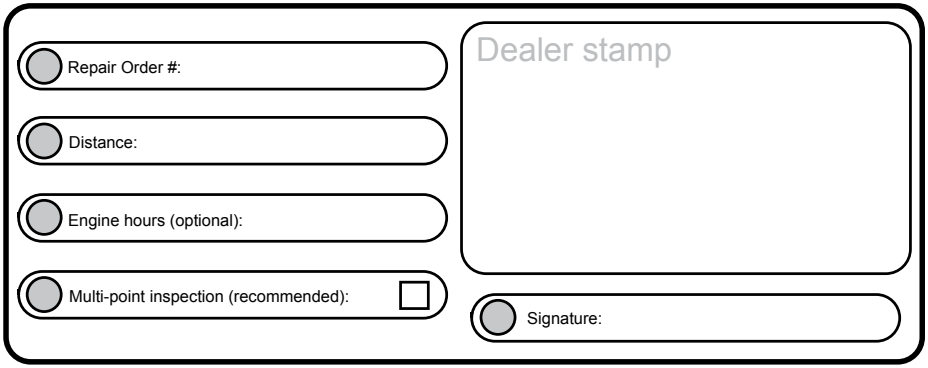
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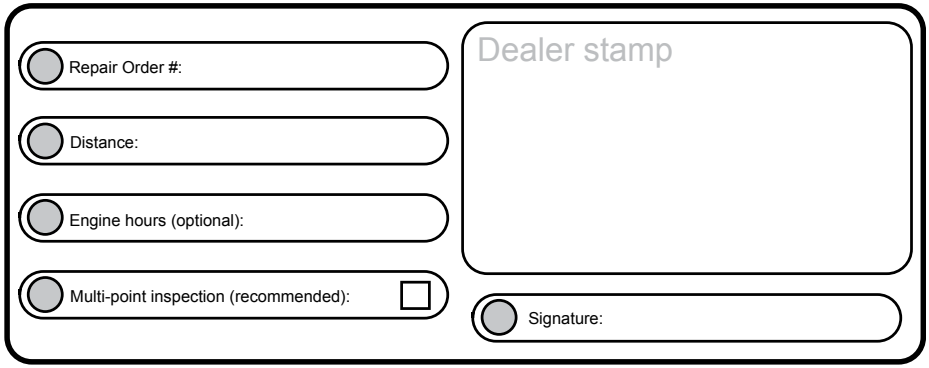
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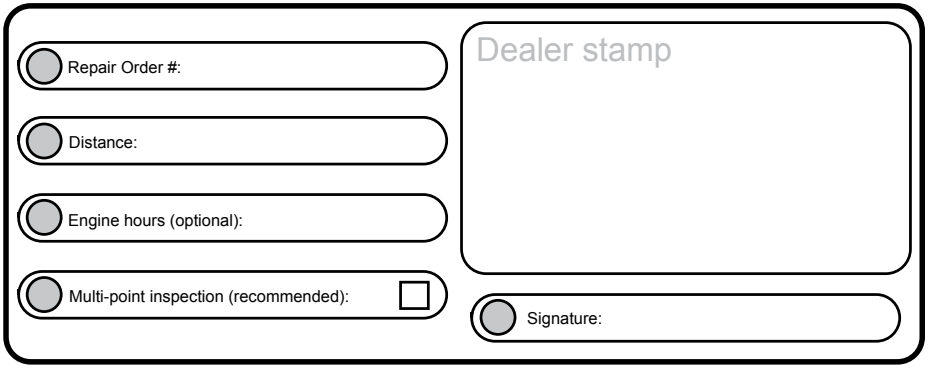
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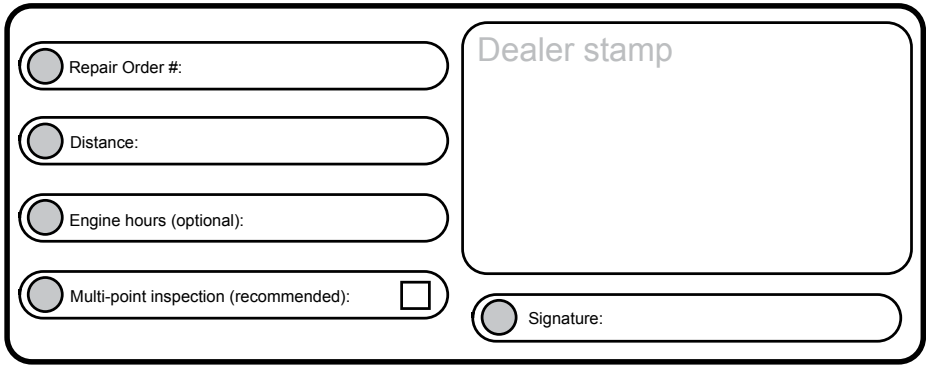
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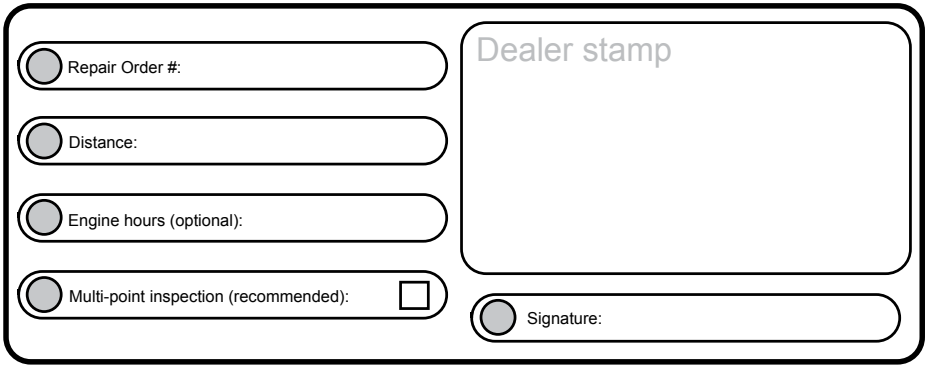
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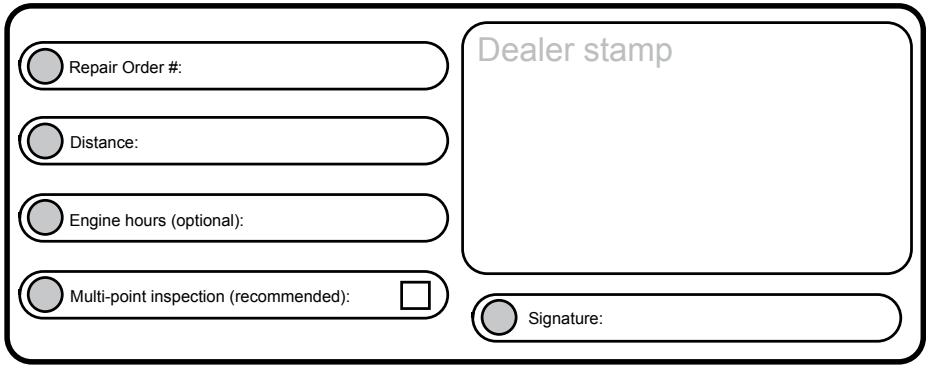
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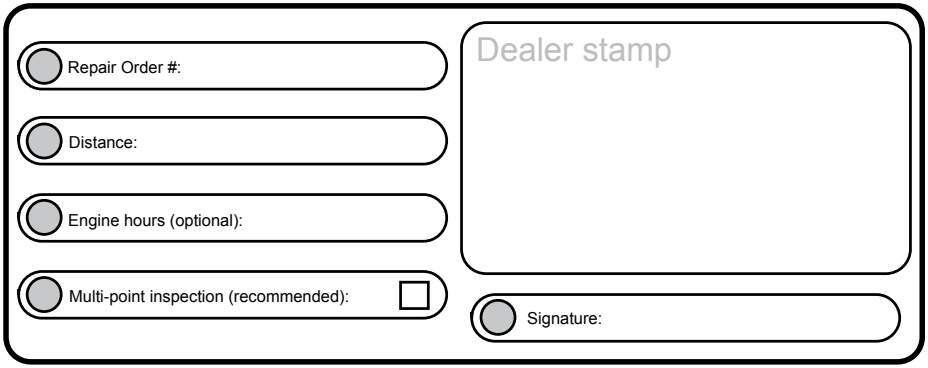
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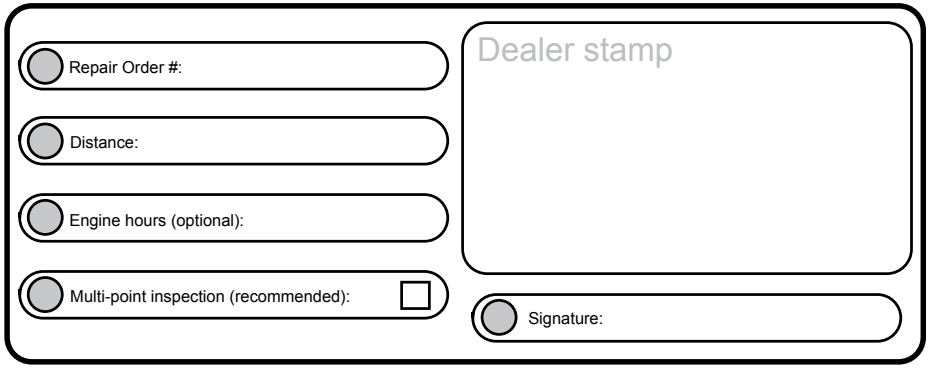
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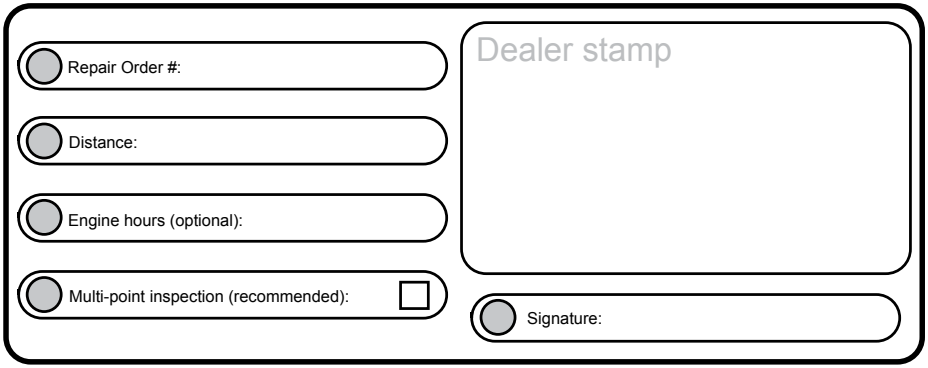
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END USER LICENSE AGREEMENT

VEHICLE SOFTWARE END USER LICENSE AGREEMENT (EULA)

- You (“You” or “Your” as applicable) have acquired a vehicle having several devices, including SYNC ® and various control modules, ("DEVICES") that include software licensed or owned by Ford Motor Company and its affiliates ("FORD MOTOR COMPANY"). Those software products of FORD MOTOR COMPANY origin, as well as associated media, printed materials, and "online" or electronic documentation ("SOFTWARE") are protected by international intellectual property laws and treaties. The SOFTWARE is licensed, not sold. All rights reserved.
- The SOFTWARE may interface with and/or communicate with, or may be later upgraded to interface with and/or communicate with additional software and/or systems provided by FORD MOTOR COMPANY.

IF YOU DO NOT AGREE TO THIS END USER LICENSE AGREEMENT ("EULA") DO NOT USE THE DEVICES OR COPY THE SOFTWARE. ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DEVICES, WILL CONSTITUTE YOUR AGREEMENT TO THIS EULA (OR RATIFICATION OF ANY PREVIOUS CONSENT).

GRANT OF SOFTWARE LICENSE: This EULA grants you the following license:

- You may use the SOFTWARE as installed on the DEVICES and as otherwise interfacing with systems and/or services provide by or through FORD MOTOR COMPANY or its third party software and service providers.

Description of Other Rights and Limitations

- **Speech Recognition:** If the SOFTWARE includes speech recognition component(s), you should understand that speech recognition is an inherently statistical process and that recognition errors are inherent in the process. Neither FORD MOTOR COMPANY nor its suppliers shall be liable for any damages arising out of errors in the speech recognition process. It is your responsibility to monitor any speech recognition functions included in the system.
- **Limitations on Reverse Engineering, Decompilation and Disassembly:** You may not reverse engineer, decompile, translate, disassemble or attempt to discover any source code or underlying ideas or algorithms of the SOFTWARE nor permit others to reverse engineer, decompile or disassemble the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.
- **Limitations on Distributing, Copying, Modifying and Creating Derivative Works:** You may not distribute, copy, make modifications to or create derivative works based on the SOFTWARE, except and only to the extent that such activity is expressly

permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.

- **Single EULA:** The end user documentation for the DEVICES and related systems and services may contain multiple EULAs, such as multiple translations and/or multiple media versions (e.g., in the user documentation and in the software). Even if you receive multiple EULAs, you are licensed to use only one (1) copy of the SOFTWARE.
- **SOFTWARE Transfer:** You may permanently transfer your rights under this EULA only as part of a sale or transfer of the DEVICES, provided you retain no copies, you transfer all of the SOFTWARE (including all component parts, the media and printed materials, any upgrades, and, if applicable, the Certificate(s) of Authenticity), and the recipient agrees to the terms of this EULA. If the SOFTWARE is an upgrade, any transfer must include all prior versions of the SOFTWARE.
- **Termination:** Without prejudice to any other rights, FORD MOTOR COMPANY may terminate this EULA if you fail to comply with the terms and conditions of this EULA.
- **Internet-Based Services Components:** The SOFTWARE may contain components that enable and facilitate the use of certain Internet-based services. You acknowledge and agree that FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent may automatically check the version of the SOFTWARE and/or its components that you are utilizing and may provide upgrades or supplements to the SOFTWARE that may be automatically downloaded to your DEVICES.
- **Additional Software/Services:** The SOFTWARE may permit FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent to provide or make available to you SOFTWARE updates, supplements, add-on components, or Internet-based services components of the SOFTWARE after the date you obtain your initial copy of the SOFTWARE ("Supplemental Components".) SOFTWARE updates may cause you to incur additional charges from your wireless service provider. If FORD MOTOR COMPANY or third party software and services suppliers provide or make available to you Supplemental Components and no other EULA terms are provided along with the Supplemental Components, then the terms of this EULA shall apply. FORD MOTOR COMPANY, its affiliates and/or its designated agent reserve the right to discontinue without liability any Internet-based services provided to you or made available to you through the use of the SOFTWARE.

- **Links to Third Party Sites:** The SOFTWARE may provide you with the ability to link to third party sites. The third party sites are not under the control of FORD MOTOR COMPANY, its affiliates and/or its designated agent. Neither FORD MOTOR COMPANY nor its affiliates nor its designated agent are responsible for (i) the contents of any third party sites, any links contained in third party sites, or any changes or updates to third party sites, or (ii) webcasting or any other form of transmission received from any third party sites. If the SOFTWARE provides links to third party sites, those links are provided to you only as a convenience, and the inclusion of any link does not imply an endorsement of the third party site by FORD MOTOR COMPANY, its affiliates and/or its designated agent.
- **Obligation to Drive Responsibly:** You recognize your obligation to drive responsibly and keep attention on the road. You will read and abide with the DEVICES operating instructions particularly as they pertain to safety and you agree to assume any risk associated with the use of the DEVICES.

UPGRADES AND RECOVERY MEDIA: If the SOFTWARE is provided by FORD MOTOR COMPANY separate from the DEVICES on media such as a ROM chip, CD ROM disk(s) or via web download or other means, and is labeled "For Upgrade Purposes Only" or "For Recovery Purposes Only" you may install one (1) copy of such SOFTWARE onto the DEVICES as a replacement copy for the existing SOFTWARE, and use it in accordance with this EULA, including any additional EULA terms accompanying the upgrade SOFTWARE.

INTELLECTUAL PROPERTY RIGHTS: All title and intellectual property rights in and to the SOFTWARE (including but not limited to any images, photographs, animations, video, audio, music, text and "applets" incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE, are owned by FORD MOTOR COMPANY, or its affiliates or suppliers. The SOFTWARE is licensed, not sold. You may not copy the printed materials accompanying the SOFTWARE. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content outside its intended use. All rights not specifically granted under this EULA are reserved by FORD MOTOR COMPANY, its affiliates, and third party software and service providers and suppliers. Use of any on-line services which may be accessed through the SOFTWARE may be governed by the respective terms of use relating to such services. If this SOFTWARE contains documentation that is provided only in electronic form, you may print one copy of such electronic documentation.

EXPORT RESTRICTIONS: You acknowledge that the SOFTWARE is subject to U.S. and European Union export jurisdiction. You agree to comply with all applicable international and national laws that apply to the SOFTWARE, including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments.

TRADEMARKS: This EULA does not grant you any rights in connection with any trademarks or service marks of FORD MOTOR COMPANY, its affiliates, and third party software and service providers.

PRODUCT SUPPORT: Please refer to FORD MOTOR COMPANY instructions provided in the documentation for the DEVICES product support, such as the vehicle owner guide.

Should you have any questions concerning this EULA, or if you desire to contact FORD MOTOR COMPANY for any other reason, please refer to the address provided in the documentation for the DEVICES.

No Liability for Certain Damages: EXCEPT AS PROHIBITED BY LAW, FORD MOTOR COMPANY, ANY THIRD PARTY SOFTWARE OR SERVICES SUPPLIERS, AND THEIR AFFILIATES SHALL HAVE NO LIABILITY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE SOFTWARE. THIS LIMITATION SHALL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE. THERE ARE NO WARRANTIES OTHER THAN THOSE THAT MAY BE EXPRESSLY PROVIDED FOR YOUR NEW VEHICLE.

SYNC® Automotive Important Safety Information Read and follow instructions:

- Before using your SYNC® system, read and follow all instructions and safety information provided in this end user manual ("Owner Guide".) Not following precautions found in the Owner Guide can lead to an accident or other serious injuries.

General Operation

- **Voice Command Control**: Certain functions within the SYNC® system may be accomplished using voice commands. Using voice commands while driving helps you to operate the system without removing your hands from the wheel or eyes from the road.
- **Prolonged Views of Screen:** Do not access any function requiring a prolonged view of the screen while you are driving. Pull over in a safe and legal manner before attempting to access a function of the system requiring prolonged attention.
- **Volume Setting:** Do not raise the volume excessively. Keep the volume at a level where you can still hear outside traffic and emergency signals while driving. Driving while unable to hear these sounds could cause an accident.
- **Navigation Features:** Any navigation features included in the system are intended to provide turn by turn instructions to get you to a desired destination. Please make certain all persons using this system carefully read and follow instructions and safety information fully.
- **Distraction Hazard:** Any navigation features may require manual (non-verbal) setup. Attempting to perform such set-up or insert data while driving can distract your attention and could cause an accident or other serious injury. Stop the vehicle in a safe and legal manner before attempting these operations.

- **Let Your Judgment Prevail:** Any navigation features are provided only as an aid. Make your driving decisions based on your observations of local conditions and existing traffic regulations. Any such feature is not a substitute for your personal judgment. Any route suggestions made by this system should never replace any local traffic regulations or your personal judgment or knowledge of safe driving practices.
- **Route Safety:** Do not follow the route suggestions if doing so would result in an unsafe or illegal maneuver, if you would be placed in an unsafe situation, or if you would be directed into an area that you consider unsafe. The driver is ultimately responsible for the safe operation of the vehicle and therefore, must evaluate whether it is safe to follow the suggested directions.
- **Potential Map Inaccuracy:** Maps used by this system may be inaccurate because of changes in roads, traffic controls or driving conditions. Always use good judgment and common sense when following the suggested routes.
- **Emergency Services:** Do not rely on any navigation features included in the system to route you to emergency services. Ask local authorities or an emergency services operator for these locations. Not all emergency services such as police, fire stations, hospitals and clinics are likely to be contained in the map database for such navigation features.

Your Responsibilities and Assumptions of Risk

- You agree to each of the following:(a) Any use of the SOFTWARE while driving an automobile or other vehicle in violation of applicable law or otherwise driving in an unsafe manner presents a significant risk of distracted driving and should not be attempted under any circumstances;(b) Use of the SOFTWARE at excessive volume poses a significant risk of hearing damage and should not be attempted under any circumstances;(c) The SOFTWARE may not be compatible with new or different versions of an operating system, third party software, or third party services, and the SOFTWARE may potentially cause a critical failure of an operating system, third party software, or third party service.(d) Any third party service accessed by or third party software used with the SOFTWARE (i) may charge an additional fee for access, (ii) may not work correctly, on an uninterrupted basis, or error free, (iii) may change streaming formats or discontinue operation, (iv) may contain adult, profane or offensive content; and (v) may contain inaccurate, false or misleading traffic, weather, financial or safety information or other content; and (e) Use of the SOFTWARE may cause you to incur additional charges from your wireless service provider (WSP) and any data or minute calculators that may be included in the software program are for reference only, are not warranted in any way and should not be relied upon in anyway.
- When using the SOFTWARE, you agree to be responsible for and assume the entire risk to the items set forth in Section (a) – (e) above.

Disclaimer of Warranty

YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE DEVICES AND SOFTWARE IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, COMPATIBILITY, ACCURACY AND EFFORT IS WITH YOU. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE SOFTWARE AND ANY THIRD PARTY SOFTWARE OR THIRD-PARTY SERVICES ARE PROVIDED "AS IS" AND “AS AVAILABLE”, WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND FORD MOTOR COMPANY HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE SOFTWARE, THIRD PARTY SOFTWARE, AND THIRD-PARTY SERVICES, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR AN ARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND NON-INFRINGEMENT OF THIRD-PARTY RIGHTS. FORD MOTOR COMPANY DOES NOT WARRANT (a) AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES, (b) THAT THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL MEET YOUR REQUIREMENTS, (c) THAT THE OPERATION OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE, (d) OR THAT DEFECTS IN THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY FORD MOTOR COMPANY OR ITS AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SHOULD THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. SOME JURISDICTIONS DO NOT ALLOW THE

DISCLAIMER OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE DISCLAIMER MAY NOT FULLY APPLY TO YOU. THE SOLE WARRANTY PROVIDED BY FORD MOTOR COMPANY SHALL BE FOUND IN THE WARRANTY INFORMATION INCLUDING WITH YOUR OWNER GUIDE. TO THE EXTENT THAT THERE IS ANY CONFLICT BETWEEN THE TERMS OF THIS SECTION AND THE WARRANTY BOOKLET, THE WARRANTY BOOKLET SHALL CONTROL.

Applicable Law, Venue, Jurisdiction

- The laws of the State of Michigan govern this EULA and Your use of the SOFTWARE. Your use of the SOFTWARE may also be subject to other local, state, national, or international laws. Any litigation arising out of or related to this EULA shall be brought and maintained exclusively in a court of the State of Michigan located in Wayne County or in the United States District Court for the Eastern District of Michigan. You hereby consent to submit to the personal jurisdiction of a court in the State of Michigan located in Wayne County and the United States District Court for the Eastern District of Michigan for any dispute arising out of or relating to this EULA.

Binding Arbitration and Class Action Waiver

(a) Application. This Section applies to any dispute EXCEPT IT DOES NOT INCLUDE A DISPUTE RELATING TO COPYRIGHT INFRINGEMENT, OR TO THE ENFORCEMENT OR VALIDITY OF YOUR, FORD MOTOR COMPANY, OR ANY OF FORD MOTOR COMPANY'S LICENSORS' INTELLECTUAL PROPERTY RIGHTS. Dispute means any dispute, action, or other controversy between You and FORD MOTOR COMPANY, other than the exceptions listed above, concerning the SOFTWARE (including its price) or this EULA, whether in contract, warranty, tort, statute, regulation, ordinance, or any other legal or equitable basis.

(b) Notice of Dispute. In the event of a Dispute, You or FORD MOTOR COMPANY must give the other a "Notice of Dispute", which is a written statement of the name, address, and contact information of the party giving it, the facts giving rise to the dispute, and the relief requested. You and FORD MOTOR COMPANY will attempt to resolve any dispute through informal negotiation within 60 days from the date the Notice of Dispute is sent. After 60 days, You or FORD MOTOR COMPANY may commence arbitration.

(c) Small claims court. You may also litigate any dispute in small claims court in your county of residence or FORD MOTOR COMPANY'S principal place of business, if the dispute meets all requirements to be heard in the small claims court. You may litigate in small claims court whether or not You negotiated informally first.

(d) Binding arbitration. If You and FORD MOTOR COMPANY, do not resolve any dispute by informal negotiation or in small claims court, any other effort to resolve the dispute will be conducted exclusively by binding arbitration. You are giving up the right to litigate (or participate in as a party or class member) all disputes in court before a judge or jury. Instead, all disputes will be resolved before a neutral arbitrator, whose decision will be final except for a limited right of appeal under the Federal Arbitration Act. Any court with jurisdiction over the parties may enforce the arbitrator's award.

(e) Class action waiver. Any proceedings to resolve or litigate any dispute in any forum will be conducted solely on an individual basis. Neither you nor FORD MOTOR COMPANY, will seek to have any dispute heard as a class action, as a private attorney general action, or in any other proceeding in which any party acts or proposes to act in a representative capacity. No arbitration or proceeding will be combined with another without the prior written consent of all parties to all affected arbitrations or proceedings.

(f) Arbitration procedure. Any arbitration will be conducted by the American Arbitration Association (the "AAA"), under its Commercial Arbitration Rules. If You are an individual and use the SOFTWARE for personal or vehicle use, or if the value of the dispute is $75,000 or less whether or not You are an individual or how You use the SOFTWARE, the AAA Supplementary Procedures for Consumer-Related Disputes will also apply. To commence arbitration, submit a Commercial Arbitration Rules Demand for Arbitration form to the AAA. You may request a telephonic or in-person hearing by following the AAA rules. In a dispute involving $10,000 or less, any hearing will be telephonic unless the arbitrator finds good cause to hold an in-person hearing instead. For more information, see adr.org or call 1-800-778-7879. You agree to commence arbitration only in your county of residence or FORD MOTOR COMPANY'S principal place of business. The arbitrator may award the same damages to You individually as a court could. The arbitrator may award declaratory or injunctive relief only to You individually, and only to the extent required to satisfy Your individual claim. **Arbitration fees and incentives.**

- i. Disputes involving $75,000 or less. FORD MOTOR COMPANY will promptly reimburse your filing fees and pay the AAA's and arbitrator's fees and expenses. If you reject FORD MOTOR COMPANY'S last written settlement offer made before the arbitrator was appointed ("last written offer"), your dispute goes all the way to an arbitrator's decision (called an "award"), and the arbitrator awards you more than the last written offer, FORD MOTOR COMPANY will give you three incentives: (1) pay the greater of the award or $1,000; (2) pay twice your reasonable attorney's fees, if any; and (3) reimburse any expenses (including expert witness fees and costs) that your attorney reasonably accrues for investigating, preparing, and pursuing your claim in arbitration. The arbitrator will determine the amounts.
- ii. Disputes involving more than $75,000. The AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses.
- iii. Disputes involving any amount. In any arbitration you commence, FORD MOTOR COMPANY will seek its AAA or arbitrator's fees and expenses, or Your filing fees it reimbursed, only if the arbitrator finds the arbitration frivolous or brought for an improper purpose. In any arbitration FORD MOTOR COMPANY commences, it will pay all filing, AAA, and arbitrator's fees and expenses. It will not seek its attorney's fees or expenses from you in any arbitration. Fees and expenses are not counted in determining how much a dispute involves.

(h) Claims or disputes must be filed within one year. To the extent permitted by law, any claim or dispute under this EULA to which this Section applies must be filed within one year in small claims court (Section c) or in arbitration (Section d). The one-year period begins when the claim or dispute first could be filed. If such a claim or dispute is not filed within one year, it is permanently barred.

(i) Severability. If the class action waiver (Section e) is found to be illegal or unenforceable as to all or some parts of a dispute, then that portion of Section e will not apply to those parts. Instead, those parts will be severed and proceed in a court of law, with the remaining parts proceeding in arbitration. If any other provision of that portion Section e is found to be illegal or unenforceable, that provision will be severed with the remainder of Section e remaining in full force and effect.

Telenav Software End User License Agreement

Please read these terms and conditions carefully before you use the TeleNav Software. Your use of the TeleNav Software indicates that you accept these terms and conditions. If you do not accept these terms and conditions, do not break the seal of the package, launch, or otherwise use the TeleNav Software. TeleNav may revise this Agreement and the privacy policy at any time, with or http://www.telenav.com from time to time to review the then current version of this Agreement and of the privacy policy.

1. Safe and Lawful Use

You acknowledge that devoting attention to the TeleNav Software may pose a risk of injury or death to you and others in situations that otherwise require your undivided attention, and you therefore agree to comply with the following when using the TeleNav Software:

(a) observe all traffic laws and otherwise drive safely;

(b) use your own personal judgment while driving. If you feel that a route suggested by the TeleNav Software instructs you to perform an unsafe or illegal maneuver, places you in an unsafe situation, or directs you into an area that you consider to be unsafe, do not follow such instructions;

(c) do not input destinations, or otherwise manipulate the TeleNav Software, unless your vehicle is stationary and parked;

(d) do not use the TeleNav Software for any illegal, unauthorized, unintended, unsafe, hazardous, or unlawful purposes, or in any manner inconsistent with this Agreement;

(e) arrange all GPS and wireless devices and cables necessary for use of the TeleNav Software in a secure manner in your vehicle so that they will not interfere with your driving and will not prevent the operation of any safety device (such as an airbag).

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IC: 216B-SYNCG3-L

This device complies with Part 15 of the FCC Rules and with RSS-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.

WARNING

Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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